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# THE FARMER'S MAGAZINE.

VOLUME THE FOURTH.

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JANUARY TO JUNE, MDCCCXXXVI.

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A DURHAM HEIFER,  
THE PROPERTY OF MR PEACH OF HAUGHTON, NORTHAMPTONSHIRE.

Exhibited at the Smithfield Show, 1835.

London, Published by J. Rogers, 48, Pall Mall, 1836.

# THE FARMER'S MAGAZINE.

JANUARY, 1836.

No. 1.]

[VOL. IV.

## THE PLATE.

THE DURHAM HEIFER, the subject of our Plate, was exhibited at the Smithfield Show on the 14th of December last. She was four years and eleven months old, and was fed on grass, turnips, and oil-cakes. She was the property of Mr. George Peach, of Great Haughton, near Northampton, who obtained the GOLD MEDAL for her as being "the Best Beast in any Class," and fifteen sovereigns as being "the Best Fat Heifer." A SILVER MEDAL was also adjudged to Mr. Dent, of Milton, near Northampton, as the breeder. This beautiful animal won three prizes, and was the subject of universal admiration.

## ORIGINAL LETTERS.

No. I.

### AGRICULTURAL DISTRESS.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—Although the subject of Agricultural Distress has been long sounding in the ears of the legislature, and throughout all classes of the people of this country, no sympathizing friend has yet appeared with a readiness and *ability* to give effectual and speedy relief! The subject has been so long complained of, and so often reiterated, that many persons regard it only as an old tale which would last for awhile and then die away. And the farmers are generally reproached as a *croaking set*, who will always cry out in time, and before they are hurt! This however, is but an ignorant and senseless affirmation, made for the most part by those who are fattening upon the spoils, and consuming the substance of the land which the farmer cultivates, without contributing any proportionate share of the burthens which the land has to bear.

The long continuance of the complaint, and the increase of the evil year after year, with no apparent prospect of better things at hand, seems at length to have produced conviction in the most sceptical on the subject, that *Agricultural Distress* does *really exist*, and that to an unparalleled extent in the nation! I say to an unparalleled extent, because, that former complaints were *real*, and obliged very many of the landed interest to create obligations, which are still undischarged, and in many instances are increased to such an amount as renders it almost, if not altogether hopeless that they will ever be able to repay them. And this is no *singular case* among agriculturists, but a very extensive one, and soon will, and must become extensively known, if things remain as they are.

How far the currency bill has produced this state of things, I will not undertake to prove. But this I do think, that when the currency was changed, the rate of interest on the debt of the nation, and also generally, ought in *justice* to have been reduced in the same proportion, as things became altered in value by that change. And unless this is done now, the obligations created by mortgage, &c., will never be discharged, and the moneyocracy will become the actual possessors of the nation. They are virtually so now, and are very fast swallowing up all.

But is this to be the *panacea* for *all the evil of Agricultural Distress*? No, Sir—the evil is complicated, and has been long coming on by a *combination* of causes, of which the currency bill may have been, and doubtless is one. The land is *surcharged* in a variety of ways.

There is the burthen of the poor—which bears in a very far greater proportion on the farmer than on any other class of people in the kingdom. In like manner, the highway, composition, and county rates; all which lie much heavier on the farmer than the proportion which in justice he ought to bear. And then there is that great state pauper the Church establishment, for the maintenance of which, that most oppressive, and unjust impost, the tithes, is levied and continued on the land, in a manner in which it ought never to have been imposed. There is a great outcry against the tithes in Ireland; but what are the tithes in Ireland compared with the burthen in England? The poor Catholics of the sister country are commiserated; but the poor Dissenters and farmers at home, may sink under the oppressive weight of the massive golden church establishment, with none to pity, or to help them! *Mr. Bather*, at the Shropshire Agricultural Society, exclaimed loudly against the landlords and farmers, as if they were the cause of their present distress, and had the remedy in their own hands! But why did not *Mr. Bather* descant a little upon the reverend and lay tithe eaters? Why ought the landlords and the farmers to accommodate themselves to their "*altered circumstances*," and the tithe eaters to *revel* in their luxuries, and receive their amount of composition as when the produce of the land was more than double its present price? How long will the landlords and farmers *sit still* and let the present tithe system *wrest* their property from their hands? How much longer are the tithe eaters to be allowed to *revel in the spoils* of the landlords and farmers, and to *impoverish* both the *land* and its *cultivators*, without contributing one mite, or risking any capital for the purchase of stock, or cultivation of the soil? A great portion of the land in the fen and marsh districts of the kingdom, has been rescued from the waters and made productive to the supply of the nation, in corn, cattle, &c.; at an *immense cost* for drains, banks, rivers, mills, &c. And then the *tithe* of the *produce* raised at all this cost and risk of the undertaking, (in many instances not less than 20l

an acre) goes to a *foreigner*, who like the drone in the hive, *consumes the honey*, but labours not to obtain it!

But, my Lord Darlington says, "the *clergyman must have his stipend*." Yes, the clergyman must feed and *indulge* himself in *luxuries and ease*, if the landlords and farmers *starve*! Why so tender of the tithe eaters, my lord? And why so hard upon the landlords and farmers, Mr. Bather? Let the clergyman have his *stipend*. But let it be according to the apostolic model, the voluntary offering of the people to the minister who preaches the Gospel to them—and not to a foreigner who sends his proxy to do the work, and pays him in many cases worse than a clerk's wages in a merchant's or an attorney's office. Let the clergyman however have his *stipend*. But let the *system of raising it be altered*. Let the *whole tithe system* be revised, and instead of *consuming the capital and industry expended* on the improvement of land; let it be the tenth of the *annual value* to the *landlord*; and then let the clergyman take his *moiety* only, and not the *whole* as now; and let the *poor* have their *moiety* also; and this will confer a *rational benefit*; and if the clergyman has not so *large* a stipend as he has now in many cases, the national religion will not suffer by it, and he will have much more than the primitive ministers of the Gospel had! Now if there be *one burthen* upon the *land*—*one* impost upon the *farmer*, which tends more to impoverish the soil, and to drain the pocket, and exhaust the resources of its cultivator, than another, surely, Sir, it is high time it was removed! And that the *tithe* is such a burthen, and unnatural impost, is allowed by the universal consent of all agricultural writers. Why not rouse from your apathy then, landlords and farmers, and from Johnny Groat's house to Land's End, make your voice to be heard, in seeking relief from this great, unnatural, and oppressive burthen?

I know it is hard to rouse you, and to bring you to a concentration of opinion upon this point; but dire *necessity* will in the end do it. You Sir, have once and again expressed your surprise at the *patience* with which this evil has been borne. *Farmers*, you know Sir, are a *rural* population; and that our habits and employments are *laborious, simple, and domestic*. And that it is much more difficult to bring a population so circumstanced to act in concert together, than the *dense* population of trading and manufacturing districts; who seem to derive a sort of *mechanism* from their employments, which they quickly bring into operation upon any point on which they are fixed.

Thus also it is with the tithe receivers, and great money lenders. They all act in concert, and seem all to have concerted together against the landed interest of the kingdom. Many are laid under obligation to tithe receivers for lenity shown them as to the time of payment; or for loans lent on mortgage, or otherwise; for they are *rich* as a body, and many of them great *money lenders*! Some have *family* connections by marriage, on hope of preferment to some good living for some part of their family, who have been brought up for the church; and the system is so interwoven with landlords and farmers, in a variety of ways, that it has become the great *Leviathan* of the nation. And to make head against it, is a hard thing! It has become a "*stranded Leviathan*" in Ireland, to use the phrase of Mr. Bather, and if it be suffered to remain *as it is*, in England, it will make landlords and farmers too, become stranded *Pignies*! In conclusion, Sir, I would say, seek an entire altera-

tion of the *tithe system* at home. Seek also a reduction in the interest of money, such as the alteration of the currency demands. Seek likewise poor laws for Ireland. Seek it in justice to Ireland, and for the sake of her almost starving peasantry; and seek it in justice to yourselves, that Ireland may *consume* more of her own produce at home.

I am, Sir, your constant reader, &c.  
A FARMER IN THE FENS OF CAMBRIDGESHIRE.  
Dec. 2.

NO. II.

## TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—I am a constant reader of your magazine, and look forward to each number with anxiety, hoping, according to the old adage of "Necessity being the Mother Invention," that in these necessitous times some one may find out some remedy, or at least kindle some well grounded hope of returning prosperity in the breasts of the despondent farmers; but alas! I turn over page after page, read speech after speech, and still little or no consolation do they afford me, except perhaps that the distress of the times is the means of developing such a character as that of the Marquis of Chandos, whose manliness, and zeal in the cause, far transcend my powers of eulogy. But, Sir, much as I admire his devotion to the cause, much as I feel grateful to him, still I cannot but think, that his advice to his constituents, not to sleep on their posts, but that as they have much to do they must instantly begin to act, and continue in one straight forward and constant course, that course being, to petition parliament to redress their grievances,—must only lead to disappointment. For, have not the speeches from the Throne, at the opening of the several past Sessions of Parliament, noticed and regretted the depressed state of the farmers, and recommended inquiry into the cause with the hopes of speedily relieving them? Had not the arguments of the Noble Marquis for the Repeal of the Malt Duty been unanswerably answered? Did not Lord Grey declare in the House of Lords that anxious as he was he knew of no means of relief but reduction of rent? Did not Lord Althorp declare, that beyond the New Poor Law Act, he could suggest none? Would Sir Robert Pill's Bill, for the equalization of local burdens, those which press upon the farmer, have been more than a flea bite compared to the distress? (Query? Mr. Editor), or can we expect much attention to such petitions when we read of one of the most talented of the present bunglers congratulating the country upon the improving state of the Agriculturists? No, Sir, I much fear, that it is out of the power of the legislature, interested as all its members must be, to afford any; and I may state this opinion with more confidence having it confirmed by the declaration of Lord Stanley at the Liverpool Agricultural Meeting. But I should not have troubled you with these remarks had I not a little pet plan, from which, I must confess, visionary as it may appear, I expect a great benefit to accrue, and that too speedily when taken up by the landlords and farmers of England. The Noble Marquis, in his preface to his toast of prosperity to the Royal Bucks Agricultural Association, uses these words:—"I confess, it is hard upon us, that of all the occupations of the state, Agriculture alone is depressed,—yes, the staple of the land is suffering, while all other branches of industry increase and prosper; it is not, believe me, of their prosperity that I com-

plain but of our adversity; and from the depression we must endeavour *to rid our ourselves*, if we would not sink under it." Better advice in my humble opinion could not have been given, or come from a higher quarter, and I sincerely wish that I could persuade the Noble Marquis, to agree with me as to the means of effecting so desirable a riddance. I would invite him to inquire with me into the cause of the unprecedented prosperity of the manufacturers at this moment, and to whom they are indebted for their prosperity; I think that we should find not to the liberality of a free trade Parliament, but solely to their own exertions; to the successful application of capital to their *machinery* by which they are enabled to undersell their neighbours, and consequently to command every market of the civilized world. And, Sir, why cannot we employ this power to rescue us from impending ruin, nay I will ask why do not we employ it, for I read in every provincial paper that Mr. Handley, M. P., I believe for one of the Divisions of Lincolnshire, stated at the Grantham Agricultural Meeting, having seen a steam-plough working in Lancashire, and turning up an acre of wet land, nine inches deep, in one hour and fifty minutes. Such power being therefore in existence I would beseech the Noble Marquis and every other landlord to inquire how far it would be desirable to employ it. Whether the making them in lieu of horses, which no human labour, *I believe* can make, would not afford much useful and profitable employment; whether the land which is now employed in keeping so many horses would not be more beneficially employed in feeding human beings, and whether the introduction of machinery for agricultural purposes would not produce moral effects almost I fancy incalculable. Mr. Herschell observes in his Discourse of Nat. Phil. "that the improvement effected in the condition of mankind by advances in Physical Sciences, as applied to the physical useful purposes of life, is very far from being limited to their direct consequences in the more abundant supply of our physical wants, and the increase of our comforts. Great as these benefits are, they are yet but steps to others of a still higher kind. \*\*\*\* The ideas once conceived and verified that great and noble ends are to be achieved, by which the condition of the whole human species shall be permanently bettered, by bringing into exercise a sufficient quantity of sober thought, and by a proper adaptation of means, is sufficient of itself to set us earnestly reflecting what ends are truly great and noble, either in themselves or as conducive to others of a still loftier character, because we are not now as heretofore hopeless of attaining them. It is not equally harmless and insignificant whether we are right or wrong; since we are no longer supinely and helplessly carried down the stream of events, but feel ourselves capable of buffeting at least with its waves, and perhaps of riding triumphantly over them; for why should we despair that the reason which has enabled us to subdue all nature to our purposes, should (if permitted and assisted by the providence of God) achieve a far more difficult conquest; and ultimately find some means of enabling mankind to bear down those obstacles which individual shortsightedness, selfishness, and passion, oppose to all improvements, and by which the highest hopes are continually blighted, and the fairest prospects marred." I dare scarcely trust any reflections of my own to stand contrasted with such as I have quoted, still I cannot quite check my pen from leading me into those fields of speculation in which

when restrained within the limits of reason, Mr. Herschel assures us, it is allowable to indulge. I cannot but contemplate that hearth which a waning fortune had been driving to despair, now made happy by the prospect of returning plenty, their dormant energies aroused; nor can I repress my fancy leading me to those hordes of self-banished families, whose courage has urged them to seek a home in savage climes, now animated with the hopes of once more seeing their native homes, for

They still have hopes, their long exertions past,  
Herc to return—and die at home at last.

Nor can I turn my fancy from those shores, where our extended commerce is offering her cheapened merchandise, is decomposing the hard rock of ignorance, and fitting it for the reception of the divine seed, the Word of God. My fancy knows no higher flight, I must therefore descend to reality and subscribe myself,

Yours, &c., &c.  
NEAR WREXHAM.

No. III.

#### TO THE EDITOR OF THE FARMER'S MAGAZINE.

Sir,—I have lately noticed in your Magazine accounts of several great meetings that have been held in different parts of the country for the purpose of considering the cause of the present distressed state of agriculture with a view to provide a remedy.

The meeting which it is my intention of noticing, however, is the one held at Shrewsbury, where the Earl of Darlington presided, as the speech which his lordship there delivered appears to me highly objectionable, as it tends to mystify a very plain subject, and to give rise to hopes that can never be realized.

His lordship commences by stating, that there were a great variety of opinions as to the cause of the distress under which agriculture now laboured, but that it was right to hear the opinions of all before they attempted to apply a remedy. He then proceeded to ask the all-important question, "What it was the farmers most complained of?" This was certainly a most necessary inquiry, and it was of the greatest importance to have it correctly answered, as before the seat of the disease was satisfactorily ascertained no remedy was likely to be applied with success; his lordship answered, and his audience acquiesced in the answer "low prices of produce." If the question has been correctly answered, it very naturally suggests another, what is the cause of the present low prices? This question is also answered by his lordship, "scarcity of money." Now let us inquire whether the low price of wheat, for example, is really caused by the scarcity of money, or whether it is not rather caused by the supply being greater than the demand, as the coming to a proper understanding on this point is of great importance, as scarcity of money affects the demand for wheat much less than any other commodity with which we are acquainted, it being, in the strictest sense of the term, a necessary of life.

I shall in the first place take it upon me to state, without the fear of contradiction, that there has been more wheat produced from the last three crops, and of course offered for sale, than ever there were at any former period in the history of Great

Britain in any three successive years; we have not only had three full crops, but the quantity of wheat now sown in most places double, and in a great many quadruple, within the last forty years, besides the immense and annually increasing quantities imported from Ireland: I admit the consumption is greatly increased, and that it never was greater than at present, as our manufacturers were never in a more prosperous condition; but this only goes to prove that the market is glutted, and that wheat must obey the laws of supply and demand like every other commodity. Why, for example, was oats last year so high-priced in proportion to wheat? Or, how does it happen that wool has been as dear for the last three years as ever it was during the war if money is so scarce? Was it not because the supply fell short of the demand?

Our next inquiry must be, what is the value of wheat? and what is the price we have a right to expect and calculate on for a series of years with average crops. This is a most important inquiry, and one which every agriculturist ought well to consider. Lord Darlington states that some were of opinion that the fall in prices was occasioned by the sudden transition from war to peace. "But," says his lordship, "that certainly might have accounted for it in the first year of peace, but not in the twenty-first." I differ from his lordship entirely; prices rose very much during the war on account of the extraordinary demand for grain; when that extraordinary demand ceased to exist, prices, as a matter of course, began gradually to fall back to their original level. All over Europe prices rose very considerably during the war, but they have again gradually receded to the level at which they stood ten years before the French revolution. Now for the ten years preceding 1789 the average price of wheat in England was about 45s per qr., what should prevent it again receding to the same point? prices may rise when the crop is deficient, but they may, and in all probability will, continue to fall below that point when we have a succession of good crops, as at present.

His lordship goes on to agree "that the war virtually ended in 1814. Granted, and prices fell after the crop of 1815 was reaped, because the crop was abundant, and the extraordinary demand had ceased. His lordship then states, "that 1817 and 18 were years of as great prosperity as the farmer ever knew, or could expect to know:" this I do not altogether admit, but I shall state matters as they really stood: 1816 was the most unproductive crop we have reaped, without exception, since 1799; of course prices were high, but then the farmer had little to sell; foreign could not be imported at that time till wheat reached 80s per qr; 1817 was only a degree better; at least I know in the northern part of the island the crop was very defective; prices of course kept high; the supply did not equal the demand: the crop of 1818 was good; prices kept up; stocks, being low, owing to the two preceding bad crops, until we were deluged with foreign corn in the summer of 1819; 1819, 20, 21, 22, were all good crops, the supply being fully equal to the demand; prices gradually fell till they reached the level at which they stood before the war; in the summer of 1823 it became evident that the crop was to be deficient, and prices began to rise rapidly in the month of June; the crop turned out bad, as was expected, and prices continued high; the crops of 1824 and 5 were good, and, as they succeeded a bad crop, we had full prices, as stocks had again got low; 1826

was the extraordinary dry year; winter-sown wheat was a good crop, but all others very deficient; prices for wheat continued fair; oats and barley were scarce and dear; 1827, 28, 29, 30, and 31 were all deficient crops, considerably below an average, and considerable quantities of foreign grain was required to supply the demand; prices continued proportionably high; 1832 was an average crop; 1833, 34, and 35 rather above an average; the supply is now greater than the demand, in consequence of an accumulation, particularly of wheat, and the present low prices are the consequence. I must therefore, after travelling over the same ground, as Lord Darlington, come to a different conclusion, as he is of opinion, that, "whenever money was plentiful prices were good, and when it was contracted prices were low." Now, I should say, whenever corn is scarce prices are good, and whenever it is plentiful prices are low.

If Lord Darlington's hypothesis is right, he may probably be pursuing a proper course in endeavouring to make money more plentiful if he possibly can, but if he is wrong, as I am very much convinced of, the altering the standard of value from gold to silver will have very little effect in relieving the agriculturist.

But, if 45s per qr is likely to be the average value of wheat—if, as Lord Darlington has stated, the cost of production cannot be reduced,—if tithes, poor-rates, and other local burdens which press on agriculture cannot be materially diminished,—if the altering the standard of value from gold to silver is likely to prove of none effect, what, then, is to be done? That is the question—Lord Darlington answers, alter the standard of value. So answer I—but not from gold to silver, but from gold to wheat, and this will, without doubt, give substantial relief to the agriculturists. I shall give an example how this alteration would work, and what amount of relief might be expected from it.

Lord Darlington read a statement of Lord Western's, in which he supposed, a farm of 100 acres, which, during the war, was let at 35s per acre, or 175*l*: the average of wheat from 1797 to 1819 was 80s per qr; the land, therefore, was let at the value of 3½ bushels of wheat per acre; 3½ bushels of wheat at present is worth 16s, which for the hundred acres would make 80*l* instead of 175*l*; this would make a difference on the rent of 95*l*; the labourers can't eat more bread or work more work than they did during the war; so if they get the same quantity of produce it is as much as they have any right to, and as much as the farmer can afford to give, the same with all other expenses. If Lord Darlington would introduce a motion to that effect in the House of Commons, and if the Marquis of Chandos and Mr. Cayley would have the goodness to support it, there is no calculating on what might be the consequence, but even if they failed they still might have the power of doing uncalculable good by taking payment of their rents in this way, and thus showing an example to the landowners in the kingdom, of liberality and justice.—I am, sir, your obedient servant,  
Q. E. D.

East Lothian, Dec. 3, 1835.

No. IV.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—Having heard that an Artist, has taken the likeness of the fat heifer, the property of Mr.



J. Mantly of Wolland, Devonshire, that won the first prize at the last cattle show, at Exeter, with the intention of having it prefixed in the next number of your valuable magazine, I am induced to trouble you with a few lines on the subject. The North Devon bullock is admired for its beautiful symmetry, as appears by the likeness above mentioned, the eye is very prominent, in truth it is without a fault as to shape, perhaps it may appear diminutive to a superficial observer, when compared with the Durham ox; but the Durham Goliath on a close examination will not appear so gigantic as one might imagine at first sight, the beauty of the Devon is that it is good in its *good* points. Mr. Mantly informs me, that he will produce more beef with the North Devon cattle from a certain quantity of ground, than any other breeder can with other breeds. The Devons will graze twenty pounds per quarter; I recollect seeing a few ribs of an ox killed by the Duke of Norfolk, that he purchased of Mr. Mantly that measured six inches of pure fat.

The old adage that "all is not gold that glitters" is not inapplicable to the North Devon breed of cattle, for many are sold, as of that breed, without any other pretension to the title than a red coat and a pair of horns; the Mantly's however are famed for having the breed in its purity; and what is most remarkable they have on every occasion that they have been exhibited gained a prize; they have not failed in one instance; such uninterrupted success denotes something *beyond the common*. Mr. F. Mantly, the uncle of James Mantly, has in his possession a cup awarded by the Bath Society for the best lot of neat cattle. Lord Somerville sold a pair of oxen that he purchased of Mr. Mantly, to King, who gained with them the first prize at Smithfield; so did another pair which the late Duke of Bedford sold to Gibblet. The uncle and nephew gained eight prizes last year at Exeter and *twelve* this year, a clear demonstration, that their stock is not of an ordinary sort. I shall not fatigue you with further details, their cattle need only to be seen and be admired. Saul the King of Israel, was, we are told taller by a head than any of his fellows; the Mantly's have certainly cogent reasons to be gratified on finding that their labours have not been in vain, though they do not wish to grow taller than their compeers.

The speech of Mr. Pyle of Tallaton, at the last Agricultural Meeting, at Exeter, appears to me, to be replete with sound sense, and gives one an idea of an independent yeoman; and it is to be hoped that landlords and tenants may profit by his advice—reciprocity of feeling, candour and openness in all matters between them will tend greatly to smooth the ruggedness of life with both, and above all, let Agriculturists unite in their efforts to make known their present difficulties, and their labours must ultimately be crowned with success.

Yours obediently,

DEVONIAN.

Devonshire,  
Nov. 23, 1835.

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No. V.

## TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR.—As you give opinions on all sides of questions, I beg to offer, through the medium of your valuable publication, a few observations upon that much engrossing subject at the present moment, viz. the House of Commons taking into consideration the distress of the agricultural interest, with

a view to discovering the cause thereof, and applying a remedy.

It appears to me, Sir, that the cause is obvious enough and also the remedy; except in the instances where hungry cold clay soils, and other sterile tracts have been brought into cultivation by the exorbitant price of grain that once was attained: in these instances a complete remedy cannot be found without evident injury to the community generally, as it is impossible to keep such lands in cultivation but by keeping up the price of produce to an extravagantly high standard—endeavouring to continue that soil under the plough which a skilful and prudent cultivator would reject at no rent at all, if he could get tolerably good land to farm at a fair rate.

The supply of corn it is plain has now out-run the demand, and therefore the price has become low; it is not remunerating because the farmer cannot make sufficient with which to pay his rent. Then the cause of his distress is the high rent! Lower his rent and there is the remedy,—the natural and only rational remedy. Other things may be done, and much has been done by government to relieve the depression which has prevailed. Taxes to an immense amount have been taken off since the war which bore heavily upon the land: indeed not much more can be done in this way, except by a repeal of the malt tax, and that is impossible without providing a substitute, which substitute must be a property tax, the tax that landlords were so anxious to be relieved from, when before imposed, and which the two great parties, one of which must hold the reins of government most likely yet for a long time to come, unite in condemning, and if moved would undoubtedly unite in resisting, and that successfully. This however, I think ought to be done, to do away with the vexatious and injurious restrictions of the excise in the process of malting, and allow of the labourer brewing his own beer; though by no means am I of opinion that this step would of itself much relieve the distresses of the farmer generally, though it might do something. Yet this, with other means—as equalizing the land tax; commuting tithes; throwing the maintenance of the poor generally over the whole community, by a rate according to property, but administered locally under the directions of the poor law commissioners, with a less limited power to magistrates in urgent and particular cases than they possess by the poor law bill as at present in force, &c. &c. would do much; and the rest that is necessary, viz. reducing rents, must, in justice, be done by the possessors of the soil; those whose estates are clear can do it very easily, and as to the mortgagee who has perhaps almost as much interest to pay as he can obtain by rent, that is his misfortune, but as in the case of all other bad bargains he must bear it himself, and cannot justly expect that because he is so unpleasantly situated he has a right to demand of the legislature to adopt any and every means to support the price of produce, that he may still keep up his rents and preserve him from that reverse of fortune which any other speculator must inevitably submit to.

A change also in the currency appears a favourite remedy at this time with many. It does not appear to me that that would have any material effect: indeed, according to your table of prices of wheat, and amount of Bank of England notes in circulation at the same time at various periods, it would appear that the currency has almost nothing to do with the question; and to disturb the present apparently healthy regulation of the circu-

lating medium (for trade and manufactures it is acknowledged, on all hands, are thriving under it; and surely agriculture if it does not now feel the benefit of the thrift of these it must shortly?) for the purpose of satisfying some few speculative minds upon this point, would, it appears to me, be extremely unadvisable.

Already, perhaps, my letter has extended to too great a length, I shall therefore here terminate my remarks, and resuming the subject beg to trouble you again another day.

Strand Dec. 5 1835.

REFLECTOR.

No. VI.

### CURING BACON.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

Sir,—The very large quantities of bacon which failed of being cured last year, has induced me to make the following observations, trusting they may be of use to those who are concerned in the curing of that valuable provision. The poor man who has by hard earnings, economy, and care, raised his pig for winter food, and has even deprived himself and his family of many necessaries of life, to procure food for it, in hopes of afterwards securing them substantial provision, is in general the sufferer; and the loss to him is incalculably more, than it is to a more opulent person; but the failure frequently manifests itself also amongst the farmers, as well as the poor; and I have heard of farmers who have had more or less bad, for twelve years successively! Some attribute this to a defect in the salt, and others to some peculiar pre-disposition in the flesh to putrify; but I am inclined, after some years of *unfailing* practice, and acting upon a principle which has been equally efficient for between thirty and forty years, to attribute the principal part of the failures of curing, to neglect. I have known bacon bad, while the hams which were bought and salted by another person were perfectly cured: which proves that it does not arise from any general pre-disposition to go wrong, and I have salted with salt, bought of a salter which did not fail to cure, while much of his own was bad, and quite unfit to use, which makes me think that the blame is not to be attached to the salt.

My plan is the following: The pigs are hungered at least twenty-four hours before they are killed,—thirty-six is perhaps better;—they are then killed as speedily as possible, and suffered to remain other twenty-four hours to cool. They are cut up, and conveyed to *lead* bowls, and having wiped salt over the swarth (skin) side with the hands, taking care to stop the salt and saltpetre into the "shank ends," in order that it may effectually reach the bone. The flesh side is then turned uppermost, covered with salt and sprinkled with saltpetre, (the proportions are for a twenty-stone pig, a stone of the former, and a pound of the latter); after laying about a week, the bacon is all removed; that which laid uppermost is put lowest, and more salt is added to those parts from which it may have disappeared. In about three weeks, or a month, it is fit to hang up to dry, and it has never in a single instance failed of being effectually cured. The circumstances which must especially be attended to, are the following: the pig must fast before it is killed; it relieves the vessels, which if loaded, would tend to putrefaction: it must be as little irritated as possible when killed, and the more speedily it is effected the better; humanity and interest alike demand it. Let it be thoroughly cool, before it is salted, and place it in

*lead* vessels, if at hand, but *do not rub it*; it only excites the putrefactive process, and you can never rub the salt *through the skin*. Stop the salt well into the "shank ends," and above all let the place be cool and airy, (much depends on this,) and remove it, and add salt as above directed, frequently. By attending to these precautions, I believe, uncured bacon will seldom occur, and if a single poor man's family have their bacon cured in consequence of these simple remarks, it will amply repay,—Sir, your obedient servant,  
Yorkshire.

A FRIEND OF THE POOR.

No. VII.

### TO THE EDITOR OF "THE FARMER'S MAGAZINE."

Sir,—Will you, or some of your intelligent correspondents, be so obliging as to inform an inexperienced farmer in these difficult times, by what rule the relative quantity of nutriment in tale wheat, oats, peas, malt dust, bran, &c. for feeding stock, can be ascertained? We all know that we can buy a large quantity for comparatively little money, as bran and malt dust for instance; while, at the same time, we may really be buying the dearest article relatively to the quantity of nutriment contained in them.

An answer in your next Magazine to this inquiry will greatly oblige, your's truly,

A HERTFORDSHIRE FARMER.

Dec. 9.

No. VIII.

### TO THE EDITOR OF "THE FARMER'S MAGAZINE."

Sir,—Being a subscriber to your valuable publication, I beg to ask two plain questions. What is become of the land-valuers who were employed by the whole of the proprietors some twenty-five or thirty years ago to double their rental? I beg further to ask of the tenantry of England, if those gentlemen or others have been over their farms to re-value within these last four or five years? I shall make only one remark—that agricultural produce has been at a low ebb for the last twenty years.—Yours, respectfully,

Dec. 11, 1835.

JUSTICE.

A SPORTING CHARACTER.—A wealthy old bachelor, of Jewish extraction, has lately settled in a noble mansion in the Queen's County. His habits are most eccentric. He lives in almost total seclusion, and in all his household expenses observes the strictest economy. The neighbouring gentry in vain offered him the advantages of their society. He would neither give nor take dinners, nor join in the usual amusements of the country. He does not patronize fox hounds, has little affection for beagles, a more than O'Connell antipathy to greyhounds; nevertheless, he is a sportsman, and keeps a pack of dogs, but they are bull dogs—enormous monsters, which he imported in a caravan, and keeps barred up in iron cages like the wild beasts in a menagerie. His main delight consists in feeding these beautiful pets with meat well cooked and carefully separated from the bones, lest any injury should befall their teeth. He also keeps a numerous establishment of game cocks, betwixt whom and the sweet creatures in the kennel all his parental cares and affections are divided. This genius is reported to be worth half a million of money.

## THE ADVANTAGE AND ECONOMY OF RAIN-WATER.

We are not aware of any article of common consumption which may be productive of more comforts to a family than rain-water. We do not take in view the blessing of water in the abstract; nor shall we enter upon any inquiry at present into the qualities of this apparently bland and simple fluid, which, however, contains within itself the elements of the most tremendous energy of combustion. Our object is to state a few facts connected with the subject of rain-water alone; and we hope to show, beyond the possibility of doubt, that, in domestic economy, it may be rendered of infinitely greater importance than has hitherto been believed.

It will be but just, however, to premise, that our remarks do not allude to anything absolutely new; there are many persons who are practically aware of that which we are about to suggest; our aim is simply to extend, not to originate, a practice, which we are sure is appreciated by all who have adopted it, and will be so, just in proportion as it shall become further known and understood.

Rain-water is valuable in every situation where it can be collected in sufficient abundance. In London, and in large towns, it is apt to be contaminated with soot; but from this and other impurities it can be freed by a process hereafter described. Wherever it can be obtained pure, or rendered so, it is water in the very best form. To the gardener it is all but indispensable; his plants can scarcely be in health without it; but every thing flourishes, particularly the beautiful gems of the parterre and flower-garden, if an ample supply of this gift of nature be at his command. The housewife and laundress are perhaps more indebted to it for their immediate comfort than any other persons, because of its great softness, and the facility which it consequently affords to the many important operations in which they may employ it. All other water contains a greater or less proportion of chemical solutions of lime which render them hard, or (to speak more correctly) tend to decompose soap, and to deposit that mineral matter upon the skin, which induces a roughness, at the least, if not a liability to chaps.

Rain-water is generally supposed to be unpleasant to the palate; if, however, it be carefully collected, in the first instance, and properly filtrated, it is found by experience to be the pleasantest water that can be drank. We were in the habit, some few years since, of visiting a family where the rain from the roofs was caused to pass through a canvass strainer, in texture like that of a cheese-cloth, into the water-but; there it deposited any impurities which were not caught by the cloth, and every day a few gallons were filtrated by one of the newly invented portable apparatus. The water was perfectly bright and pure; its flavour (if the term be admissible) was most delicious; in fact, it was the finest water we ever tasted, not even excepting that of pellucid mountain streams or the lakes. Nothing of the rapid insipidity of common rain-water remained, nor will that ever be perceived if the fluid be properly collected and strained.

We now come to the principal object of this paper, which is to direct the reader to a certain mode of collecting and preserving a large stock of this estimable gift of nature.

If this article meet the eye of a resident of that chalky but most fertile granary of the metropolis, the Isle of Thanet, at the north-east point of Kent, it will be sufficient to mention a rain-water tank, to insure his instant assent to our unqualified assertion, that a greater convenience can scarcely be attached to a homestead. In some parts of Berkshire also we shall

meet with approvers, because a few tanks are found there; but with the exception of the two districts above referred to, the real rain-water tank appears to be scarcely known. It is therefore our intention to urge the general adoption of a plan, which can be perfected at an expense trifling if compared with the great advantages it secures.

The reservoirs or tanks for rain-water are generally constructed of a cylindrical form, somewhat resembling a shallow well; they are sunk in the ground, and should be built, with the best bricks, nine inches in thickness. The brickwork will be rendered most secure if it be put together with the best Parker's cement; but good mortar, made up with two or three parts of finely sifted sea-coal ashes, and one part of the best lime (particularly that from thoroughly burnt limestone), will do extremely well. The internal surface must, however, be accurately and entirely covered with a coating of the cement, of at least one-third to one-half of an inch in thickness. From one thousand to five thousand gallons of rain-water may thus be collected, and secured from dirt and dust; and if the fluid, in passing into the reservoir, be made to run through a filter, prepared by putting into a deep tub a quantity of well washed sea or river sand, to the depth of a foot or more, over that a stratum of bruised good charcoal, and finally a layer of clean gravel stones, it will be effectually sweetened, and purified from all extraneous matters. This tub might either be bored at the bottom with an augur-hole, to let the water pass by means of a broad funnel into the tank, or be furnished with a false wooden bottom, pierced with holes; the intervening space would then be filled with water, which a common tap, passed through a stave just above the true bottom of the tub, could convey away into its under-ground recipient.

A tank, we have said, is built in the ground; the opening at top is always secured either with flat stones or with a brick arched dome, in the centre of which a stone is let in, and fitted in a groove. This stone is moveable, and is occasionally taken up when it is found needful to clean out the tank. But if the purifying filter were employed, the water would be so effectually cleansed, that little or no deposit could ever be formed, and it therefore would keep well for a very long period.

A few pounds would cover the first expense of a medium sized tank; and we believe that a sum under ten pounds in the whole, would also furnish it with a pump and pipe, by which this purified and salubrious water could be introduced into the dwelling, and be thus always ready to be applied to the several purposes of domestic economy, to which water, and particularly soft water, is so indispensably requisite.

Under common circumstances, nine-tenths of the rain-water which falls on every dwelling and its offices are wasted; by the plan suggested, a large portion of it would be saved, and be rendered available in the best and most advantageous manner.

CALCULATIONS IN FAVOUR OF RAILWAYS.—It has been correctly calculated from accurate statistical accounts, that the land required for the annual support of one horse is sufficient to maintain a family of eight persons; therefore, it must be evident to the meanest capacity, that, as the number of horses can be lessened, so will the quantity of subsistence for human beings be increased. Now let us suppose, that in the space of six years the services of 100,000 horses would be dispensed with, a calculation not exaggerated, the produce of such land, under cultivation, would be sufficient to nourish 800,000 persons more than are now enabled to procure the bare necessities of life.

## CENTRAL AGRICULTURAL SOCIETY.

A general meeting of deputations from the Local Agricultural Associations was held on Tuesday, Dec. 15, at the Freemasons' Tavern, Great Queen-street, for the purpose of forming a Grand Central Society, to be under the direction of a Board of Agriculture.

Soon after eleven o'clock between four and five hundred noblemen and gentlemen, members of the different deputations, assembled in the great room, William Ormsby Gore, Esq., M.P., in the chair.

The CHAIRMAN opened the business of the day by briefly stating the object for which they were met together, and he enforced on the meeting the absolute necessity of union among the agriculturists, whether landlords or tenants, throughout the empire, in order that they might obtain, by remedial measures on the part of the Legislature, complete relief from the severe pressure of that distress under which the agricultural interest was now suffering. A series of resolutions would be proposed to the meeting for consideration, and, if approved of, for adoption, with a view to the formation of a Central Agricultural Society in this metropolis. The Honourable Gentleman then called on Mr. Richard Spooner to move the first resolution.

Mr. R. SPOONER said it was known to all whom he had the honour of addressing, that public meetings of this sort could not be conducted without some previous preparation. Some few of the gentlemen who had been deputed from the different counties therefore met yesterday, and with great care and attention drew up some resolutions, having for their single and simple object the formation of a central association in London, for the protection of the agricultural interest of Great Britain. Their Honourable Chairman had stated, very forcibly and very properly, the necessity of union. He agreed with his Honourable Friend, that they ought to be united in opinion on the subject-matter of the resolutions which he should have the honour of proposing. No rational being could for one moment doubt the first assertion contained in these resolutions—namely, that the landed interest, and especially the laborious and meritorious tenants connected with that interest, were in a deeply depressed state, and that it was the first duty of Parliament, and of all parties, to endeavour to alter that condition, and to place it where the true interests of the country required it should be placed—upon a firm and stable footing of prosperity—that being the only firm and stable footing upon which the prosperity of all other classes could ultimately be founded. (*Cheers.*) Upon that question, he apprehended, there could be no difference of opinion. And, then, as to the necessity of forming a central association he likewise expected an equally unanimous determination, because he believed they were all perfectly well aware that hitherto the want of strength on the part of the landed interest was to be attributed to a want of union amongst them (*cheers*); to the want of a point of common concentration; and to their not being able to bring their rights, interests, and just claims before Parliament in a full, complete, and efficient way. (*Cheers.*) The resolutions he should have the honour to submit to the meeting would first declare the existence of agricultural distress; next, the necessity of forming a central association; and then they would deal with the several details which it would be necessary to adopt for the purpose of carrying the second resolution into full operation. The provisional committee, however, did not wish these resolutions to be adopted without consideration. On the contrary, the resolutions were quite open to

amendment, and the committee were ready to adopt any suggestion that might be made and approved of by the meeting. Before reading the resolutions, he must be allowed to state, that however desirable union might be, yet he should abhor union if it were to be purchased by a compromise of principle. (*Loud cheers.*) He should abhor union if, in order to obtain it, they were to leave out of consideration any point which was essential to the furtherance of the object they had in view. (*Cheers.*) He should abhor union if, having met there for one simple purpose only, and having effected that purpose, they should depart without stating their views, both as to the cause of the distress under which they were labouring, and as to the proper means for remedying that distress, to which it was incumbent on them to call the attention of Parliament. He merely stated this in the beginning, because he knew that after the formation of the Central Society should have been effected, it was the intention of several individuals, and especially of one noble lord (Chandos), whose talents all present must most highly respect, and who had come among them to give them the benefit of those talents (*cheers*)—to lay before the meeting some views which they, in common with a very large majority of the thinking part of this kingdom, entertained on those two points—the cause of the distress and the remedy. (*Cheers.*) Having said this, he would proceed to read the whole of the resolutions, which would afterwards be put from the chair separately. If any gentleman should be disposed to move an amendment on any of them, he would earnestly entreat him to abstain from all extraneous topics until the whole of the resolutions in their present or amended form should be passed. From the adoption of those resolutions he believed very great advantages would be derived, not to the agricultural interest only, but to all the other interests in the State. (*Cheers.*)

The following resolutions were then read, and having been put one by one from the chair, were adopted unanimously, without any amendment.

On the suggestion of Lord WYNFORD, the name of Sir Percival Dyke, Bart., was added to the list of the Committee.

" 1. That notwithstanding the efforts of the Local Agricultural Associations, the distress of that great and important portion of the community which comprises the three branches of landlords, tenants, and labourers, has been rapidly increasing since the peace, and has now reached a degree threatening the destruction of the landed interest, and all connected with it, it is therefore the opinion of the deputation here assembled, that a Central Society for the Protection and Encouragement of Agriculture, and totally divested of party or political feeling, be formed in the Metropolis, to be called 'The Central Society of Great Britain and Ireland.'

" 2. That 'The Central Agricultural Society' shall be under the effective direction of a President, six Vice-presidents, and a Committee of forty members, with a chairman and deputy-chairman; the whole to be elected annually, and that nine form a quorum; that in addition to the above-named forty members, each Local Agricultural Association subscribing 5*l.* annually shall be entitled to depute yearly two of their body, who shall be privileged to vote and act as members of the Committee; that the Presidents of each of the Local Agricultural Associations, Peers of Parliament, and County representatives, being members of 'The Central Society,' shall, *ex-officio*, be members of the Committee; and that the secretaries of each of the Local Subscribing Associations shall be *ex-officio* members of the Society.

" 3. That the Committee shall be elected annually at a general meeting of the Central Society, to be held in London for that purpose in each year on the last day of the Smithfield Cattle Show.

"4. That the Committee shall have the power of admitting members up to the 1st of January, 1836, after which period no individual shall be admitted a member unless two-thirds of the Committee present vote for his admission, or unless he be recommended by the Agricultural Association of his own district.

"5. That in the formation of the Committee for the ensuing year, one member of each District Association be first inserted as members of such Committee; that the following Noblemen and Gentlemen shall form the Committee of 1836, with power to complete the number, to draw up the rules, regulations, and bye-laws, for the constitution and management of the Society, and to appoint the President, Vice-Presidents, and Officers.

"6. That R. Montgomery Marten, Esq., and R. Broun, Esq., the secretaries, be *ex-officio* members of the Committee.

"7. That in case any gentleman now named should decline acting, the Committee (having reference to the respective counties in which such vacancies shall have occurred), shall have the power to fill up the vacancy until the next annual meeting."

The Secretary having read the names of those who had consented to become members of the Association, amongst whom were Lord Gage, Lord Teynham, Lord Farnham, Lord Wynford, the Earl of Darlington, and many other noblemen and gentlemen of distinction,

The CHAIRMAN said it was now his pleasing duty to congratulate the meeting on the formation of the Central Agricultural Association (*cheers*), an Association affording a combination which had long been wanted—a combination of all the various Agricultural Societies which were distributed throughout the country, each in itself weak, but all, when united into one body, in the shape of such an Association as that which he had then the honour of addressing, certain to carry weight and to command attention. (*Hear, hear.*) He also begged leave to congratulate the meeting on the perfect unanimity which had prevailed, as well on the day previous as on the present occasion. It was highly satisfactory to find, that, throughout the whole of their proceedings, there had not been a single dissentient voice. (*Hear, hear.*) Every resolution that had been proposed had met with the entire approbation of the meeting. The Society being formed, he found by the advertisement, in consequence of which the meeting had been convened, that the next point to which they were invited to direct their attention, was the cause of agricultural distress, and the measures necessary to be adopted for its relief. If, therefore, any gentleman wished to deliver his sentiments upon that subject, he should be happy to hear him. (*Hear.*)

Earl STANHOPE being generally called for, rose and said, that it afforded him great satisfaction to be present at that numerous and most respectable meeting, composed as it was of persons coming from all parts of the kingdom, possessed of great practical knowledge and experience upon the subject which they were called on to discuss, and animated by the most patriotic desire to assist in the proceedings of any meeting convened, as that meeting was, for the purpose of consulting as to the cause of the unexampled and intolerable distress under which the agricultural interests of the country were then suffering, and of considering the means by which that distress might be removed or palliated. (*Cheers.*) After the allusion which had been made by the gentleman who so worthily filled the chair, to the advertisement by which the meeting had been convened, it would not be considered as out of order if he addressed to the society some few words on that part of the subject, which was of primary and paramount importance, namely, the cause of the unhappy situation of the

landed interests, which every one must so deeply deplore, (*hear, hear,*) which every one so severely felt, and which could not be allowed to continue without imminent danger of leading to a disastrous and tremendous conclusion. (*Hear, hear.*) He begged to assure the meeting at the outset that there was no one in that assembly, or in the country, who felt more deeply impressed than he did with the advantage of unanimity, well knowing that it was from union alone that the agricultural classes could hope to obtain relief. (*Hear.*) And if that meeting were what it professed to be, and what he really believed it was, not in name only but in substance—a general meeting of the agriculturists of England, he would ask whether, having once assembled, it was prepared to separate without expressing any opinion whatever either as to the cause or remedy for the evil of which they had all so much reason to complain (*cheers*)? He begged to be allowed to say a very few words as to one of the imputed causes of the distress, but which he did not believe to be the true one. No man had more strenuously opposed than himself the alteration of the former corn laws, founded as he believed those laws were, upon the only sound and just principle upon which such laws could be established, namely, a perfect exclusion of all foreign corn from the markets of this country till the prices in this country were such as to show an absolute deficiency in the amount of the produce. (*Cheers.*) Subsequent experience had confirmed the correctness of the opinions which he then expressed. But however mischievous the principle of allowing foreign corn to be imported at all times might be—creating as it did a nominal price, much higher than the price in reality, still it could not be fairly contended that the corn laws were the cause of the present distress, and for this simple reason, that for a considerable period of time the prices of native corn had been so low, and the removal of duty on the importation of foreign corn in consequence so high, as in point of fact to amount to a positive prohibition. What then was the cause of the unparalleled distress under which the agricultural interests were labouring? It was to be found in that great edict of confiscation familiarly known by the name of Peel's Bill. (*Great cheering.*) To that measure, adopted as it was now confessed to have been, in entire ignorance of what its probable workings would be, recommended by false hopes in those who brought it forward, and holding out false expectations to those by whom it was supported—to that measure, which had obliged many persons to sell their patrimonial inheritances, was to be attributed the general distress of the agriculturists; (*hear, hear,*) and the highway-robbery which had been committed under its provisions was designated by the mild and gentle phrase of a transfer of property. (*Cheers.*) What was a highway robbery but a forcible transfer of property (*cheers*)? This then he maintained was the cause of the depression of the agricultural interest; and he proved it to be so, not only by the absence of every other cause, but by this theory—that the resumption of cash payments having greatly contributed to reduce prices, had in a still greater degree contributed to lower wages. (*Hear, hear.*) A proof of the correctness of his view of the subject was afforded in the effect produced, in the year 1818, by an issue of Exchequer bills. What took place in the following year? In 1819 the late Lord Liverpool induced Parliament to increase the annual taxation of the country to the extent of £3,000,000. Let any minister of the present day, whether Whig or Tory, endeavour to make a similar experiment, and what would be the result? He would find it to be practically impossible. An-

other proof was to be found in the course which Parliament took in the year 1822, when by the issue of small notes some alleviation was afforded to the distress under which the country had been suffering in consequence of the measure of 1819. (*Hear, hear.*) They stood now, fortunately, in a very different situation with respect to popular opinion, to what they did at the period to which he had just referred. It was at the commencement of that year when an address was moved to the crown in reply to the generous speech which had been delivered from the throne, that he (Lord Stanhope) suggested an amendment to the effect that the House of Lords should pledge itself to institute an inquiry into the cause of the distress which at that time existed, and also into the effect produced by the alteration of the currency. What support did he then receive? He was determined to take the sense of the house upon the question, and found himself left in a minority of three. (*Hear, hear.*) But at a later period of the session, the ministry of the day, without having the candour to acknowledge that they were mistaken in their views, and without explaining their motives or intentions, made that alteration in Peel's bill which was the sole cause of the prosperity of which the Chancellor of the Exchequer in the following year made so great a boast. (*Hear, hear.*) At that time, which was indisputably one of general prosperity, the price of wheat was double what it was at present. It mattered not whether prices were high or low, provided that a proportion between prices and payments were equally sustained. (*Hear, hear.*) He defied the ingenuity of man to devise a mode by which the distress of the country could be relieved other than by reducing payments, including the payment of the interest on the public debt, to the level of the present prices, or else to raise those prices to a level with the payments which the agriculturists were called upon to make. (*Cheers.*) What was the present price of wheat? The last average was 36s. for the imperial quarter, being, as all whom he addressed well knew, but 34s. for the quarter measured by the old-fashioned Winchester bushel. (*Hear, hear.*) Compare this with the price of wheat at any former time. In the ten years of peace which elapsed between the close of the American war and the commencement of the French revolutionary war, the average price of wheat was about 50s. per quarter. Even a century ago, in 1735, he found, from the best sources of information which were open to him, that the average price of corn was 4s. per quarter higher than it was at present. (*Hear, hear.*) He repeated that it was a matter of indifference whether prices were high or low, provided there was a just proportion between prices and payments; but if the price of corn was factiously reduced, the land would not long be capable of sustaining the debt of the country. If it were determined to afford no protection to the land—be it so; but let those who had money in the funds, or in savings' banks, be prepared to endure the loss of it. It was urged as a proof of the goodness of Peel's bill, that it had received the support of both factions in Parliament. The same argument had also been subsequently applied to the new Poor Law Bill—a measure second only to Peel's bill in the oppressiveness and cruelty of its provisions. This junction of parties to support particular measures, reminded him of a story which was told of George III. That monarch was reported to have said—"I believe that Pitt is generally right; it is possible that Fox may occasionally be in the right; but when Pitt and Fox agree together, then I am perfectly sure that both of them are wrong." (*Laughter and cheers.*) He was disposed to think the same

of the two parties in the legislature, when he found them uniting only to carry such measures as Peel's bill and the Poor Laws' Amendment act. (*Cheers.*) With respect to the question of the currency, a cabinet minister had said to him—"If we were to vote by ballot in both houses of parliament, you would carry your opinions by a great majority." (*Great cheering.*) It appeared then that it was the force of party, from which he (Lord Stanhope) had the happiness and the honour to be altogether excluded, that prevented the true expression of opinion in the legislature. (*Hear, hear.*) If that were the case, it was time that the country should raise its voice loudly and generally for a remedy of the grievances under which it was labouring. (*Hear, hear.*) When he spoke upon the subject of the currency, and when he deprecated the operation of the bill of 1819 as productive of all the ills and all the distresses which had since ensued, he begged it to be distinctly understood that he had never proposed an alteration of the standard of value. He had never considered the proposal which was made that a half sovereign should pass for a whole sovereign in any other light than as an extreme injustice. It might be a very convenient mode for debtors to pay their debts at the rate of 10s. in the pound, but it was not a measure founded in justice, and consequently not a measure that he would either propose or support. (*Hear, hear.*) Rather than assent to such a measure, if he were obliged to continue the currency as it now was, he would adopt the triple ratio—the equitable adjustment as proposed by the late Mr. Cobbett. He (Lord Stanhope) would propose not to alter the standard to the extent of 50 per cent., or to any indefinite amount, but to replenish the country with paper (*great cheering*)—paper of a valid description. (*Renewed cheering.*) On a former occasion he (Lord Stanhope) had proposed the establishment of a silver standard of value, which he believed would be sufficient to give great relief. He would not now propose to make any alteration in the paper of private banks, but he would propose the establishment of a new medium of circulation in paper (*cheers*), so secured that the holders of it should not be exposed not only to any subsequent loss, but to any present inconvenience. (*Cheers.*) He would propose also the issue to an immense extent of the lowest denomination of Exchequer bills. (*Hear, hear.*) In effecting this change in the currency they would be greatly raising the nominal, though not the real, price of corn; (*hear, hear.*) and, consequently, unless a corresponding alteration were made in the present corn-laws, they would greatly facilitate the importation of foreign corn. (*Hear, hear.*) Upon that point, however, he would not then dwell at any length, it was enough for him to say that he had prepared, with great care—enlightening himself with the opinions and advice of those who best understood the subject,—a series of resolutions, which it was his intention to propose to the House of Lords, to be considered by a committee of the whole house, whenever he received that support, either in parliament or out of it, which would enable him to act with any hope or expectation of success. (*Cheers.*) He had also prepared a series of resolutions with regard to the new poor-law bill, embodying provisions which he believed would be acceptable to all the poorer classes, and generally conducive to the well-being, prosperity, and tranquillity of the country. (*Hear, hear.*) To that end it would be necessary to repeal the odious and oppressive bill which had unfortunately established in this country an arbitrary, unconstitutional, and irresponsible tribunal, upon

whose decision depended the happiness or wretchedness of all the humbler classes. There was another point in connection with the question of the currency to which he begged leave most especially to direct their attention. As he had already intimated, the immediate effect of altering the currency would be to raise the price of all articles of consumption, and of corn amongst others. (*Hear, hear.*) Such he was ready to admit would not only be the effect, but the object and design of an alteration of the currency. If the price of wheat rose 10s per qr., it undoubtedly followed that the price of bread would rise in a much greater ratio. That being the case they were bound to the country, and especially to those most useful and most laborious members of the community, to whose industry they owed all that they possessed—he meant the labourers in husbandry, the poor cultivators of the soil—to take measures to prevent any great increase of prices till a corresponding increase had been made in the amount of wages. (*Hear, hear.*) Not long since he had read in that excellent newspaper *The Morning Herald*, a statement which proved beyond all possibility of doubt that which he (Lord Stanhope) had before supposed to be the case—that the price of the quarter loaf was at present nearly double as high as it ought to be in proportion to the price of wheat, and in consequence the consumer had not the full advantage of the low prices. He believed that the great luminaries of the age, the political economists, were the guilty cause of this evil. (*Cheers.*) In ancient times the price of bread was fixed in proportion to the price of grain, and even in the present day, in many of the Continental States, the retail prices of provisions were from time to time fixed by the magistrates in proportion to the wholesale prices. By this means fraud was prevented, and the poor protected. (*Hear, hear.*) Alluding to the Marquis of Chandos, who was present, the noble earl said that there was no one in that assembly, in that metropolis, or in the kingdom, who venerated more highly than he did the talent and patriotic zeal of his noble friend (*hear, hear*); no one felt more strongly than he did that which he was sure all whom he had the honour to address must feel from the bottom of their hearts, the gratitude which the noble marquis deserved, and always would receive, for his zealous, persevering, unremitting, and most patriotic exertion on behalf of the agricultural interests (*cheers*;) consequently there was no one from whom he differed with greater pain. But differ from him he must upon this point, if the noble marquis thought that they should merely state their grievances to Parliament, and ask for a committee of inquiry. (*Cheers.*) He (Lord Stanhope) thought they ought to demand redress. (*Great cheering.*) He believed, that unless redress were granted—full, effectual, and speedy redress—it would be found impossible for the country (however anxiously disposed it might be to do so) to fulfil peacefully and honourably all the engagements it has formed (*hear, hear*;) he believed it would be impossible to continue much longer the payment of the interest of the national debt. (*Hear, hear.*) He was totally at a loss to conceive what benefit was now to be anticipated from the appointment of a committee of inquiry. He had himself brought forward a proposition of the kind in the session of 1830: nearly six years had since elapsed, during which nothing had been done; and now they had arrived at a period at which delay might be fatal. (*Cheers.*) With that feeling he (Lord Stanhope) should propose to those who thought they could bring forward any proposition upon the subject, with a reasonable expectation of

receiving the support of parliament, that they should move, in the first instance, that their resolutions be adopted and printed, and subsequently that they should be taken into consideration not by a select committee, but by a committee of the whole house. (*Hear, hear.*) The noble marquis would recollect that a committee was appointed in 1833, of which he was a distinguished member. He (Lord Stanhope) attached great importance to the report, or rather to the evidence upon which the report of that committee was founded: for the report itself, though it gave in some respects a candid view of the situation of the country, came at last to this most lame and impotent conclusion—that relief to the landed interests was to be hoped for, not from the active interposition of the Legislature, but from its cautious forbearance. He knew it was a good maxim to “let well enough alone;” but it was from the report of the committee of the House of Commons that he learnt, for the first time, that where evils were acknowledged to exist, no attempt should be made to remove them. (*Hear, hear.*) The report of that committee had since been appealed to by Sir Robert Peel; but was Sir Robert Peel aware that the national debt was not contracted in gold, and could not be paid in gold? (*great cheering*) and for this simple reason, amongst others, that all the gold in the country—nay, all the gold in the world, did not equal the amount of our national debt. (*Cheers.*) They were often reminded that Earl Grey, in his parting speech, on quitting the reins of government, had told them that the greatest relief that could be afforded to the agriculturist would be by the reduction of rents. This was the same sort of comfort as would be afforded to a lame man, who, in complaining of not being able to walk, should be told by his physician, “Oh, the remedy for that is to sit quietly in your chair.” (*Laughter and cheers.*) It was, in fact, totally impossible that any great relief could be afforded by the reduction of rents; for he had calculated, that even if the whole of the rent were taken off, the reduction in the price of bread would not exceed three-farthings in the quarter loaf. He might be asked why, entertaining these opinions, he did not appear to support them in his place in parliament? To such a question he could only reply, that he seceded from his exertions in parliament on principle, finding that he did not receive, either in or out of the house, such a support as could make him useful. Finding, also, that his opinions were scoffed at by those who were the authors of calumnies against the agricultural interests, and that he was accused, when he stated facts, of making statements exaggerated and unfounded. (*Hear, hear.*) Under such circumstances, as an humble individual, he washed his hands of all responsibility upon the subject, and withdrew from his labours in parliament. Leaving to those who remained behind him the undisputed, undivided responsibility of the calamities, nay of the convulsions which he believed would necessarily follow the resistance of all propositions for affording relief to the land. (*Cheers.*) When he saw a different feeling obtain in men's minds, when he found the country alive to the importance of the lauded interests, he should return to his post, and no exertion should be wanted on his part to procure that relief which had now become so imperatively necessary. (*Cheers.*) In the course he had pursued he had never been actuated by a selfish object. He always had acted, and always would act, as an independent man, asking for nothing, caring for nothing, and wishing for nothing that any government had it in its power to bestow. (*Cheers.*) After some further observations, the noble earl expressed an ardent

wish that all whom he had the honour to address, casting aside party feelings, and acting without reference to party denomination, should zealously and cordially co-operate to procure the passing of such measures as were necessary to the safety, the security, nay, even to the existence of the country. (*Cheers.*) In discussing their own grievances, and considering of the means by which those grievances might be redressed, he conjured the agriculturists (and upon this point he felt he could not lay too much stress) never for one moment to be forgetful of the interests of that useful and meritorious class, upon whose industry and whose welfare the prosperity of the whole community depended—he meant the agricultural poor, the industrious labourers in husbandry. (*Cheers.*) The noble earl concluded by moving a resolution to this effect: “That nothing can remove the present overwhelming distress but the adoption of some measure which will either raise the price of produce to the level of the burdens imposed, or bring down the burdens to the level of the present prices.” (*Great cheering.*)

Mr. WOODHOUSE seconded the resolution. He had heard it remarked that the question of the currency ought not to be mixed up with the question of agricultural distress; but the fact was, that the two were so intimately blended that it was impossible to discuss the one without referring to the other. (*Hear, hear.*)

LORD TEYNHAM was proud to see the British Lion of agriculture at length aroused; and he trusted that she would never sleep until she had obtained that redress which was due to her from the legislature of the country. (*Cheers.*) He had united his best efforts with the strenuous exertions of the noble and learned lord now present, (Lord Wynford,) to effect some modification of that harsh measure, the poor-law bill, which operated so severely upon the working classes of the community. The agricultural labourers, the bold peasantry of England, once their country's pride, and he would not now say their shame, were the foundation on which a great and powerful association must be formed. Let landlord, tenant and labourer be united, and all that could be required in justice, and on principle, for the relief of the agricultural interest must be done. He, therefore, should submit that measures should be taken to investigate the condition of the agricultural labourer, by a committee of this association, in order that at a future meeting the labourers themselves might be enabled to state their grievances, and petition for redress. There were two causes that reduced the price of agricultural produce: one was the increased produce of Ireland. He considered it would be the duty of members of parliament next session to propose, among the first things to be done, that the poor-laws should be taken into consideration, in order that some general code might be formed, which should be applicable to the whole empire; and he knew of no man more capable of bringing forward such a motion than the noble lord who sat at the right of the chair.

LORD STANHOPE said he had already prepared a series of resolutions upon the subject, to be brought forward in parliament when it could be done with effect. (*Cheers.*)

LORD TEYNHAM proceeded to comment with considerable severity on the new poor-law bill, describing it as an Algerine act, and stating that its effect had been to cover the whole land with dungeons, and houses without windows. (*Cries of “no, no, chair, chair! and hisses,” from many parts of the room.*)

MR. HERBERT CURTEIS, M.P. rose to order: The two noble lords had alluded to the abuses of the poor laws, although they knew that they were speak-

ing in the presence of many gentlemen, who, in parliament had been the warm supporters of that measure. (*Cheers.*) He (Mr. Curteis) had given it his feeble but hearty support, and he believed that in his own county the bill was working extremely well. (*Cheers.*) If, therefore, the noble lord, (Teynham) persisted in his remarks, he (Mr. Curteis) should undoubtedly claim his right to answer the noble lord forthwith. (*Loud cheers, and cries of “Chair, chair.”*)

The CHAIRMAN could easily understand what were the feelings of the hon. member for West Sussex on hearing a favourite measure of his attacked. The meeting had been convened on an agricultural subject, and it had been decided that neither party nor political topics should be introduced. (*Cheers.*) If he had perceived that politics were alluded to in the slightest degree, except as they referred to the subject of agricultural distress, he should have considered it his duty instantly to put a stop to it. He would now particularly request those gentlemen who might find it necessary to allude to questions which might happen to have a distant bearing on agricultural subjects, that they would couch their language in a style that might not give offence to any individual. (*Cheers.*)

LORD TEYNHAM could assure the hon. member for West Sussex that he did not intend to make any reference to anything that had been done under the bill in the county of Sussex in particular. [Mr. Curteis: “No, no! in the country generally!”] Though the hon. gentleman knew as well as he (Lord Teynham) did that his own parish in Sussex was in such a state of disorder at the present moment that—(*No, no, order, chair.*)

The CHAIRMAN: I call the noble lord to order.

MR. H. CURTEIS: I rise most distinctly to contradict that assertion of the noble lord. (*Hear, hear.*)

The CHAIRMAN: I have called the noble lord to order. (*Hear, hear.*)

LORD STANHOPE rose to order. It was undoubtedly true that in what he had had the honour of addressing to the meeting, he alluded more than once to a subject intimately connected with the landed interest, and which he considered of paramount importance—he meant the situation of the labourers in husbandry as being affected, in the hon. member for Sussex's opinion favourably, but as he (Lord Stanhope) thought unfavourably—by the poor laws. He wished, however, the noble lord who had been called to order, to consider that the resolution now before the meeting related solely and exclusively to the question of the currency, and that that question ought therefore to form the sole subject of his remarks.

LORD TEYNHAM made several ineffectual attempts to address the meeting again: but the calls for Lord Wynford were so loud and general, that he finally gave way and resumed his seat.

LORD WYNFORD (who on account of his infirmity kept his seat while speaking) observed that he was among so many who belonged to that house to which he unworthily belonged, that he almost fancied himself in the House of Lords. He believed no one would doubt that he was a sincere friend to agriculture, and he had to complain of being as feebly supported in his efforts to serve that interest as his noble friend had been. Three or four years ago he moved for a committee to inquire into this very subject. He was sorry that committee was not granted. He would not say why it was not, though that reason was not unknown to him and the knowledge of it had made him quite as sick of party as his noble friend could be. He had determined during the remainder of his life, on no occasion to be influenced by any party, but to act upon the dictates of the best judg-



ment he was capable of forming on whatever subject might come before him. To the resolution proposed by his noble friend he did not see any objection, because it was couched in general terms and proposed no specific mode of redress. If it had, he should have objected to it, because he thought as a member of parliament that he ought not to have concurred in it. He was not fond of pledges. (*Cheers.*) He did not wish to go to parliament lettered. (*Cheers.*) And if he might be allowed as an old man, to suggest (and he was sure the gentlemen present who were members of the House of Commons, would excuse him for making the suggestion,) he would say that it would be better for them to abstain from giving pledges. (*Hear.*) One man thought the state of the currency was the cause of all their misfortunes, while other men ascribed those misfortunes to very different causes. Now although he was of opinion that the alteration of the currency was the first or proximate cause of agricultural distress, yet he believed that that distress would have ultimately arisen even although the currency had never been altered. (*Hear, hear.*) It was impossible that such a state of things could exist in any country, as that of the produce of one-third of that country being untaxed, and yet being allowed to enjoy all the privileges of the general market, and all the protection which the existing laws were calculated to give it, without producing great evils to the agricultural interest. (*Cheers.*) He confessed for one that he should wish to see committees in both Houses of Parliament, on the subject of agricultural distress. (*Cheers.*) He knew the industry with which every question affecting the interests of the country was examined in the house to which he belonged. He thought that every person connected with agriculture should have an opportunity to state his opinion as to the cause and the remedy of the distress which that interest endured. But he was very anxious that they should all abstain as much as possible, from giving opinions on the subject at meetings like the present, because every opinion given by any man at that meeting, however right it might be, would be firmly believed, raise up many enemies against him. (*Hear, hear.*) He therefore wished that they could have closed their labours that day with merely forming a committee of the general society, without expressing their opinions upon the agricultural question until they had retired to a private room to confer and consult with those who would assist them in both houses of parliament, and who, of course, must be their friends. (*Hear, hear.*) However the resolution could not be objected to, because it stated that which no man could doubt, namely, that in some way or other the agricultural interest could only be relieved by raising the prices of agricultural produce, or by bringing down the burdens of the country to a level with the present low prices. (*Cheers.*) He would not speak on this topic now, because he was afraid that in the warmth of their discussions they would broach opinions that would give great alarm elsewhere. They must consider that whatever the agriculturists were formerly, they were not now strong enough in the House of Commons at least [in voice, "There is the evil"]. He wished, therefore, before any resolutions of any sort should be proposed, that they should desire both Houses of Parliament to grant them committees, where every one would have an opportunity of expressing his opinions. They would then be much more likely to make an impression on the mind of the country, by the reports of those committees, than they should be by declaring their opinions on the subject now. He firmly believed that those towns which were not

peculiarly connected with the home trade or the foreign trade, felt as much the distress of the agricultural interest as the agriculturists themselves (*hear, hear!*); and he was anxious to go before the committees of the two Houses with some of those persons, in order that they may be examined on that point. He had no doubt that those persons would tell the committees and the country that the present meeting were not only fighting the battle of the agriculturists (though even that was a great and noble fight, when it was considered that the interest of the peasantry of the country were connected with it,) but that their operations were extended to all classes and descriptions of the people. (*Cheers.*) The foreign trade of this country must, at no distant period, be feared, be much diminished, if the accounts which were now received of what was doing in Germany and in America were true. (*Hear, hear.*) "Let us, then," to use an expression of Earl Grey on a memorable occasion, "put our house in order (*cheers*); let us, when our foreign trade is gone, be prepared for that which will be alone sufficient for us." (*Cheers.*) He believed that they would find persons in the towns who, if examined, would tell the committees that the home trade was suffering so much from the depression of agriculture, that if relief were not afforded to the landed interest, they themselves would soon feel all the evils that afflicted that interest now. Thus they would have the voice, not only of one description of people in the support of their cause, but of all the industrious classes of the community. If, too, they would speak out, he doubted not that the fundholders themselves felt some apprehension for their incomes (*laughter and cheers*), which however, he hoped to God would never be affected. No man was more anxious than himself to preserve the national faith; but the fundholder might ere long be induced to feel that the best mode of preserving the faith of the country was to enable the country to keep its faith. (*Loud cheers.*)

Mr. BALLS, of Burwell, rose to address the meeting, but the calls for the Marquess of Chandos were so general that he immediately gave way.

The Marquess of CHANDOS gladly availed himself of the opportunity of following the noble and learned lord whose opinions on the question before the meeting appeared to be so nearly similar to his own. The complaint which had always been made against the agriculturists of this country was that they were not a united body. It had always been his earnest hope that every thing that could possibly savour of a difference of opinion should be withdrawn, for from want of union their efforts to obtain that relief which they had a right to demand (and which he hoped in God they would soon have) had always failed. They must then, above all things, go before Parliament united; if they did not, they would, in all probability, meet with the same result as they had met with last session. It was not for him to express in that Hall his opinion as to what might be or not the relief which the agricultural interest required. Different opinions existed to a great extent amongst themselves on that subject; and he would not be the man, connected as he was with the farmers, to throw discord into that assembly, or to propose one measure that could hurt the feelings of any man, or render it possible that the members of the Agricultural Association should be disunited. (*Cheers.*) He would implore the meeting, before they proceeded further, to consider whether, being, as they were, united up to the present moment, it would not be better to defer the discussion of the cause, or causes, of agricultural distress. (*Hear, hear.*) He had no hesitation, how-

ever, in stating what it was that he himself had thought of doing. After the failures which had taken place, and after the defeats which the farmers had experienced, no man who felt an interest in the question could be easy in his mind until he saw some hopes of redress. After consulting then, as he had done, men of every opinion—political characters as well as private individuals on the subject—he had come to a conclusion, under the cognizance of many members of parliament, that it would be best to move as early as possible in the ensuing session of parliament for a select committee to enquire into the causes of agricultural distress, and to report thereon, for the purpose of giving immediate relief. It was before that committee that witnesses on all sides could be examined, and it would be the duty of that committee, both to their constituents and to the people at large, in their report, to set forth what they considered to be the real cause or causes of the agricultural distress prevailing throughout the country. If the difficulties had arisen in the House of Commons owing to the differences of opinion that existed there as to the cause of agricultural distress, what must the difficulties be in that room, where there was so large an assembly of persons interested in the question? Therefore, without giving, directly or indirectly, any opinion whatever on the currency question, or on any other question (but which he should be prepared, as an independent member of parliament, to give in his place), he would again implore the meeting, for the sake of unanimity, and for the sake of their going forth to the country as an united body, to allow a committee at once to be called for, and at the bar of that committee to plead their cause. (*Cheers.*) If, however, that view of the subject should not coincide with the opinion of the majority of the meeting, he felt that he should only have done what he considered his duty in expressing the opinion he conscientiously entertained as to the course which they ought to pursue; and he should reserve to himself the right to take that course, if in his judgment he considered it would relieve the distress and promote the prosperity of the agricultural interest of this empire. (*Cheers.*)

Mr. BALLS supported the resolution. It was plain that things could not long continue as they were at present. Either the burden must be reduced or the means of sustaining it increased. (*Hear, hear.*) He had listened to the whole of the proceedings of that day with interest and attention, but there was one part of the speech made by the noble earl (Stanhope) which had excited his utmost astonishment, and made an impression upon his mind deeper than any thing he had ever before heard. Was he not mistaken when he understood the noble earl to say that a cabinet minister had told him that if the members of parliament had voted by ballot upon the question of the currency, as connected with agricultural distress, a large majority of both houses would have been in favour of his view?

Earl STANHOPE: The hon. gentleman understood me most correctly. Such was the statement made to me by a cabinet minister. (*Cheers.*)

Mr. BALLS was to understand then, upon the authority of a Cabinet Minister, that a vast majority of both houses of the collective wisdom of parliament, if left to the exercise of their own unfettered judgment, would declare that the state of the currency was the cause of the distress under which the agricultural interests were then labouring. (*Cheers.*) This afforded matter for deep consideration, and it was necessary that it should be well and maturely pondered. The noble and learned lord (Wynford) had said that the farmers constituted the most amiable class of so-

ciety. It was that amiability which had been their ruin. (*Hear, hear.*) They had not been impotent—they had not been turbulent—they had not wielded the bludgeon or hurled the brick-bat, but had entreated so gently, in voice so faint and meek, in whispers so low and soft, that the ministers of the day had always found it more convenient to listen to the louder and more threatening petitioners, and to pass by the prayers of the meek and gentle unheeded and uncared for. (*Hear, hear.*) It was time that the farmers of England should adopt a bolder and more determined tone. (*Cheers.*)

Mr. CAYLEY, M. P., wished to express his entire and cordial concurrence in the sentiments contained in the very able and eloquent speech which had been made by the noble earl (Stanhope) who sat on the right of the chair; but at the same time he must coincide in the propriety of the course of action pointed out by the noble marquess (Chandos). He had long been of opinion that the only mode by which the agriculturists could hope to obtain a redress of grievances must be by the formation of such a union as that which he trusted had taken place that day. (*Hear, hear.*) He fully concurred in the observation of the Cabinet Minister referred to by the noble earl (Stanhope,) that if the votes of the House of Commons were taken by ballot, a large majority of its members would be found to coincide in the opinion that the state of the currency was the cause of the depression of agriculture. (*Cheers.*) But whilst men's votes were liable to be scanned, and as long as they were liable to be taunted with breach of political faith, he feared it was vain to look for any successful support of that doctrine in parliament. What had been the fate of all the motions which had been brought forward upon the subject? In 1822 Lord Western had only 40 members of the House of Commons who would support him. In 1830, Mr. Davenport had only eighty. In 1833, Mr. M. Attwood had a majority of some 300 against him; and in the last session of parliament he (Mr. Cayley), on bringing forward a motion for the establishment of a silver standard of value, found only 180 to support him. Thus it would be seen that little encouragement had hitherto been afforded to supporters of agriculture in parliament; but backed by such an association as that which had just been formed, and which he had then the honour of addressing, he should look for brighter days, and should not despair of seeing the legislature brought to declare the truth of propositions which every intelligent member had felt, though not always dared to admit to be true. (*Hear, hear.*) High prices were spoken of as an evil; but it should be remembered that they were only nominal; and on the other hand, he would ask of what value were low prices if the labourer had no money in his pockets? (*Hear, hear.*) High prices, with good wages, were infinitely more advantageous to the working classes than low prices and little or no wages. The agricultural labourers at present employed were, no doubt, well off; but how many were not employed? Formerly, at the hiring fairs, it was the care and business of the farmer to go round and to seek in every corner, in every place of resort in the neighbourhood, for the labourers he wanted; and it not unfrequently happened that he was disappointed by finding none. The case was widely different now. The fairs were thronged by wretched emaciated creatures, who pursued the farmer and entreated, nay, almost prayed upon their knees for employment, even of the most trifling and least lucrative description. (*Hear.*) It was a just observation that the interest of master and servant could not be separated, and for a long

time past they had been suffering together. For the last ten or fifteen years the wages of the labourer had been paid, not out of the profit but out of the capital of the farmer. (*Hear, hear.*) He wanted to restore the profits of the farmer, and he knew it could not be done except by adopting one of the two alternatives suggested in the resolution proposed by the noble earl (Stanhope.) (*Cheers.*) It had been said that Parliament could do nothing to remedy the evil. Such an assertion was only adding insult to injury. (*Cheers.*) It had been asked, too, "Why does not the farmer come down in his style of living?" Gracious God! if any one saw how the farmers of England were now living, such an observation would never be heard. (*Cheers.*) It was necessary that the agricultural interest should arouse itself and make its grievances and its distresses more generally known and more generally understood. (*Cheers.*) Parliament had hitherto done everything it could to baffle inquiry, and to conceal the effects of the existing state of the currency; and the Association might rest assured that the Legislature would yield nothing unless the feeling of the country were strongly expressed upon the subject. (*Cheers.*) The motto of the agriculturists then should be, union and determination. (*Great cheering.*)

Mr. R. SPOONER rose for the purpose of briefly alluding to what had fallen from the noble marquis (Chandos), whose name must always be received amongst the friends of agriculture with unbounded respect and gratitude. (*Hear.*) But he was sure he should forfeit whatever good opinion he might happen to possess in the estimation of that nobleman if he were to shrink from telling him that he disagreed with him in the advice he had that day given to the meeting; and before he sat down he should call upon the assembly to reject the advice of the noble marquis, and unanimously to adopt the resolution of the noble earl. (*Hear.*) That resolution declared either that the burdens which bore upon the agricultural interest must be reduced or the means of sustaining them increased. He thought it was not incumbent on the society to pause even for one moment before it consented to the adoption of a resolution embodying such a plain and simple proposition. (*Cheers.*) He thought indeed it would be unbecoming a society formed as that had been, to separate without some expression of its opinion (*cheers*); and when the noble marquis recommended them not to declare their views or express their wishes, but merely move for a committee of inquiry, he (Mr. Spooner) for one, declared that he would not consent to approach Parliament with a concealed object. (*Cheers.*) He should be glad for Parliament to go into an inquiry into all the causes of distress; but he stated fairly and boldly before hand that the state of the currency was one of the main causes. The hon. gentleman then went into a very lengthened discussion of the currency question, contending throughout that the measure of 1819 had been productive of the principal evils under which the agricultural interests were then labouring.

Mr. ROBINSON, M.P., conceived that the question for the consideration of that hall and of the legislature, was not whether agriculture ought or ought not to be relieved, but how it ought to be relieved. (*Hear, hear.*) He believed that no class of the community could be indifferent to the distress of agriculture; for although commerce and manufactures might for awhile be more prosperous, still it was impossible that any one interest could long suffer without at last materially affecting the other. (*Hear, hear.*) He thought then that the proper question for their consideration on that occasion was, what remedy ought to be adopted. (*Hear, hear.*) He confessed he had been astonished to hear from the

noble earl, that a cabinet minister had so libelled the house of commons as to declare, that its determination on a particular question would have been different if the mode of voting had been secret instead of public. Whoever that cabinet minister might be, he (Mr. Robinson) would assert that no man ever uttered a more gross or unfounded libel upon that branch of the legislature to which he (Mr. Robinson) belonged; and when his hon. friend the member for Yorkshire (Mr. Cayley) stated his own opinion as coincident with that of the cabinet minister, he would only invite his hon. friend to get up and state it in the House of Commons, when he (Mr. Robinson) would venture to say he would be overwhelmed with a degree of reprobation— [The conclusion of the sentence was not heard, in consequence of the loud and conflicting cries of "no," and "yes," from all parts of the room.] He trusted that the observation dropped from his hon. friend lightly and inconsiderately (*hear, hear*); for he conceived that a more gross libel upon any body of men could not be uttered, than to state that they voted one way whilst their opinion was the other. (*Cries of "no, no," and cheers.*) With this general vindication of the house, he would not dwell longer upon the subject than to observe, that he never himself gave a vote in parliament upon any subject that he would not have given had he been under the seal of the ballot. (*Hear.*) But after what had taken place he certainly should recommend his hon. friend (Mr. Grote), when he brought forward the subject of the ballot in the next session of parliament, to propose that the mode of voting in the house of commons should be by ballot, as well as the voting for members to serve in parliament. (*Laughter and cheers.*) He came now to the resolution proposed by the noble earl (Stanhope). In some respects he admitted that resolution to embody a perfect truism, not only with respect to farmers, but with respect to every class in the community; because it was plain and obvious, that unless a man's means were proportioned to his expenditure, he must be a destitute man. But the great question that he wished to have resolved remained behind—namely, in what manner was relief to be afforded. Now he (Mr. Robinson) was of opinion, that without such an alteration of the standard of value, as, according to the declaration of parliament, would amount to a breach of the national faith, it would be impossible to raise the price of agricultural produce by any legitimate means (*disapprobation*); and even supposing that the legislature should be induced to alter the standard of value, had they then security that the labouring classes, in whose welfare the noble earl had expressed himself so deeply interested, would obtain labour and wages commensurate with the increased price of provisions. (*Cries of "Yes."*) He should like to know from the noble earl, who had no doubt deeply considered the subject, whether he felt a perfect security upon that point? He (Mr. Robinson) deprecated the bill of 1819 as much as any man; he believed that the right hon. bart. (Sir R. Peel) by whom it was brought forward, as well as the whole country, was at that time under a delusion upon the subject; but after the lapse of so many years, he entertained conscientious doubts as to how far it would be practicable to return to such a state of the currency as existed before the passing of that measure. (*Disapprobation.*) At the same time he should have no objection to the institution of an inquiry before the House of Commons as to how far it might be deemed possible or advisable to establish a conjoint standard of silver and gold combined with an issue of one and two pound notes by competent persons, affording good and sufficient security. (*Cheers.*) That was a point connected with the report which had never yet been fairly considered in parliament. (*Hear, hear.*) Although he (Mr. Robinson) was a ship-owner, and the representative of a manufacturing constituency, he had always contended that the main-stay and greatest source of the prosperity of the country consisted in its agriculture. (*Loud cheers.*) He did not wish to see one of the tillers of the soil converted into a spinner or a weaver. (*Hear, hear.*) He believed that the theory of neglecting agriculture at home, and importing all our grain from abroad, was absurd, and as long as he had

a vote to give, would never lend his assent to it. (*Cheers.*) But as regarded the present resolution he feared if it were agreed to, it would only appear to parliament as the opinion of this meeting that no relief could be afforded except by altering the standard, (*cries of "No, no,"*) and thus he feared it would tend to prejudice instead of benefit the cause of agriculture. (*No, no.*) Under all the circumstances, he thought the course pointed out by the noble marquis (Chandos) was decidedly the best.

After a few words from Earl STANHOPE in explanation,

Sir JOHN SCOTT LILLIE expressed his determination to support the resolution, and in doing so he did not conceive that he was supporting a proposition for a breach of the public faith. (*Hear, hear.*)

Mr. H. CURTEIS, M.P., was sorry that his sentiments were not likely to be in full accordance with those of that assembly. He felt great difficulty in giving his adhesion to the proposition then before them. He was ready to admit that he thought one of the great modes of benefiting agriculture would undoubtedly be to reduce all national expenditure; but at the same time he must beg to be understood as not giving his adhesion to the doctrine that day advanced relative to the currency. Upon that question he begged distinctly to be understood as not being committed; and although he was perfectly aware that the majority of that room would probably be of a different opinion, yet he would maintain there was a large portion of those as deeply interested in the interests of agriculture as any of those present, and were as anxiously watching everything that might tend to benefit or prejudice the land, who took a very different view of the nature of the remedy that should be proposed and adopted for the existing evils. If it were meant to be maintained that the only possible remedy that could be mentioned was an alteration of the currency, he begged to tell the gentlemen who entertained that opinion, that representing, as he did, almost exclusively, an agricultural population, and considering, as he did, the agricultural interest to be the paramount interest in the country, he should be sorry to hear that they were resting for an amelioration of their grievances upon so very slender and frail a reed. (*Disapprobation.*) He appealed to the noble lord whether he thought there was the remotest chance of carrying his views, even supposing them to be correct, through the house to which he belongs? (*Cries of "Yes."*) The noble lord, of course, knew much better than he could pretend to do, what prospect there would be of success; but he would appeal to the hon. member for Yorkshire, whether, from his past experience, he had the slightest expectation of convincing a majority of the House of Commons that his views relative to the currency were correct. (*Cries of "Yes."*) He heard gentlemen around him cry "Yes," but he heard it not from the lips of the hon. member. Undoubtedly he had that day heard the strongest argument he had ever met with in favour of the adoption of the vote by ballot. That question, upon which he had always entertained great doubt, he had always opposed in parliament, but—

The CHAIRMAN: Pardon me; now we are touching upon a political question which can have nothing to do with the matter properly under our consideration. (*Hear, hear.*)

Mr. CURTEIS was aware that at all public meetings it was bad taste to oppose the chair; but, on this occasion, he must take the liberty of saying that he somewhat differed from it in opinion. (*Great disapprobation, and general cries of "chair."*) The hon. member for Yorkshire had touched upon the subject of the ballot, so had the noble lord (the hon. member for Worcester), and several other gentlemen who had taken part in the discussion.

Colonel SIBTHORP rose to order, and pointed out how necessary it was that the authority of the chair should be supported. The gallant member had not concluded his remarks, when

Mr. CURTEIS rose to order amidst much confusion. He appealed to the chairman, as a member of parliament, whether it was fair for a gentleman to get up, as

the gallant colonel had done, to prevent another from addressing the meeting?

The CHAIRMAN explained that the hon. member for Sussex (Mr. CURTEIS) was out of order when he proposed to enter into an argument upon the subject of the ballot. Other gentlemen had only alluded to it incidentally, and then it was not irregular. (*General cries of "Question."*)

Mr. CURTEIS then proceeded to observe, that all he wished to do was in a manly, straightforward manner to mention, that in several agricultural meetings in his own county, he had professed opinions similar to those which he had just expressed; and he thought it would be unmanly in him to-morrow to return to those who sent him to parliament, and to say, that although he had been present at this general assembly, he was afraid to get up and express what his honest convictions were. (*Cheers.*) He yielded to no man in ardent attachment to the agricultural interests; and on several occasions, without considering the party to which he was politically attached, he had given his support to measures brought forward by the noble marquis (Chandos) opposite. (*Hear, hear.*) On the present occasion he merely wished to say that he could not allow this resolution to be carried without expressing his conviction that there was a considerable portion of the agriculturists who did not take exactly the same views of the subject as those which had been so prominently, and he would say, so ably and so eloquently put forward by the noble earl. Having stated this, and wishing also to guard himself against being supposed as standing committed to the currency question, it would not be his wish to break in upon the unanimity of the assembly. (*Cheers.*)

After a few words from Mr. CAYLEY in explanation,

The Marquis of CHANDOS asked whether he was to understand that the resolution proposed by the noble earl, in any way, directly or indirectly, pledged members of parliament upon the subject of the currency?

The CHAIRMAN having read the resolution, said it did not allude to any specific measure whatever, and, consequently, could not be taken as binding any one upon the subject of the currency.

Earl STANHOPE said that no person who voted for the resolution could be pledged to anything further than the resolution itself. (*Hear, hear.*)

The resolution was then carried, with only two dissentient voices.

The thanks of the meeting having been voted to the chairman, the meeting broke up soon after four o'clock.

**DRAUGHT OF HORSES.**—It is very important to be able to ascertain correctly the draught of horses under every circumstance, not only to ascertain their relative strength and muscular powers, but also the state of the roads and the merits of different implements of husbandry, especially of the draught required for the different kinds of ploughs. This was felt at the late ploughing match on Mr. Niblett's farm, when Sir John Byerley, who was present, suggested the employment of the Dynamometer, as answering perfectly the proposed end, and, on his return to London, he ordered one to be made by Messrs. Cottam and Hallen, the eminent engineers, which he has presented to the Agricultural Association of Gloucestershire. The draught of horses varies from 150 to 250 pounds, and sometimes, though rarely, exceeds the latter number. The instrument presented by Sir John, goes as far as one ton; so that the draught of eight horses, and of course any lesser number, can be accurately ascertained by it. These instruments are so useful, so simple, and at the same time so correct, that no intelligent agriculturist should be without it.—*Gloucestershire Chronicle.*

**THE PORKING EMPORIUM.**—One hundred and fifty-two thousand hogs were slaughtered last year at Cincinnati, and the papers of that city say the number will be much larger this year. The value of the pork exported the past year was not less than *two millions of dollars!*—*American paper.*

## MR. CAYLEY'S LETTER TO THE MARQUIS OF CHANDOS,

ON THE NECESSITY OF UNION AND CO-OPERATION AMONG THE AGRICULTURISTS, IF THEY WOULD OBTAIN RELIEF FROM THEIR DISTRESS.

(Read by Lord Chandos to the Buckinghamshire Agricultural Meeting, October 21.)

Wydale, Malton, Oct. 10, 1835.

MY DEAR LORD,—Each succeeding year, I am afraid, urges on us more and more the sad conviction, that there is no hope for the British farmer but in the united and unremitting exertions of all his friends. Those exertions, it is true, have hitherto signally failed of success; but failure in a cause like this, instead of breeding despair, should tend rather (as your Lordship, by your own conduct, has practically shewn,) to redouble our efforts, and stimulate our energies afresh. It is on the direction of our efforts for relief that I venture now to address myself to your Lordship; and for so doing, I offer no apology to one who has shewn so warm an interest in the well-being of the farmer. The session is over;—our Parliamentary labours have ceased for awhile;—yet, reaching our homes in the country, such is the picture of agricultural misery and depression spread before our eyes, it becomes our duty, instead of yielding to that quiet and repose so natural and so welcome to us all, after months of close confinement, —to be investigating the extent, the sources, and particular modes of the distress; and as friends of the farmer, to be preparing for the ensuing Parliamentary campaign. The principle object of this letter is to consult your Lordship, and also to throw out some suggestions as to the best means of concentrating the greatest amount of the agricultural strength in Parliament, on the first motion respecting agricultural distress in the ensuing session. In using the term agricultural strength I do not, of course, merely mean county members,—but all members representing constituencies engaged in production, which finds its principal custom in the home market—the great basis of which is agriculture. Now it appears to me that a very efficient, and at the same time a very simple way to concentrate our forces, would be—1st, to bring forward (unless under very peculiar circumstances) *only one motion* during the session but so worded, that it might embrace the conflicting views of all who are well affected to home industry.—2ndly I should propose, that this motion related to the causes which have depressed the agricultural interest. The existence of its distress has been already acknowledged: let the causes of it be as unequivocally expressed, and the farmer will then be no longer doubtful which side to join, or which set of opinions to support. Indecision, from an ignorance of the source of their distresses, has paralyzed the efforts of the farmer for relief more than any other cause. To be firmly united, they must be firmly convinced of the truth and the right for which they contend: and to be successful they must be united. To give it its full weight, your Lordship should be the member to introduce such a motion—and I sincerely, most sincerely, trust you will consent so to be.

Two or three motions were made last year relating to agricultural distress, chiefly by your Lordship and myself: the disadvantage of such an arrangement is, that members, not very earnest upon the subject, fancy they will satisfy their constituents if they vote once a session on distress; two-thirds perhaps vote for the first motion, the remaining third reserving themselves for the second motion, of which notice may have been given. Thus are our forces divided, and party politics win the day against the true interests of the country. It behoves us to provide a remedy for this evil: the remedy being either to secure such an addition of votes (and which are legitimately on our side) as will carry relief; or to shew the different distressed constituencies who are their friends and who are not.

In addressing your Lordship, I have taken it for granted, from the high position you hold on the question, that it is your intention to bring forward some motion respecting agricultural distress early next session.

In what shape you propose to do this I am wholly unacquainted; but if I have rightly interpreted your sentiments since the large majority against your motion for a repeal of the malt tax, you will not be disposed to attempt that mode of relief; and your late speech at Aylesbury confirms me in this view. Then with respect to any general reduction of taxation that is *within our reach*, especially after upwards of 40,000,000! has been reduced since the peace, and has left us in even a worse state than when the reduction commenced, we can scarcely hope for relief in that way. *Still less is a penny or two in the pound reduction in the county rates, likely to go to the root of the evil.* The farmers are daily becoming convinced that the evil is far deeper seated. Those in the county you yourself represent, have of late shown great anxiety on the subject of the cause of their disasters, and have unequivocally expressed their conviction, that the real bottom of the evil has been the change in the value of money; the diminution in the amount of the currency, arising out of Mr. Peel's bill of 1819. Those of the southern counties likewise, within the last two years, have been fast coming round to the same conclusion; and I can bear testimony that the northern counties are not behind in the same opinion:—an opinion which has been the result of increasing distress, and the total failure or inadequacy of the relief expected from other sources. At the same time I do not deny that there is a discrepancy of opinion among members of Parliament, as to the modes and chances of relief. This is the difficulty I seek to obviate, for in these differences only it is, that our weakness, as a body, consists. Under these circumstances would it not be wise that a motion should be made, in a measure, to comprehend the views of all the parties well affected to our agriculturist: and home industry, without offending the feelings or prejudices of any? and thus we should be able to concentrate our combined forces on a given point, and put into operation the "*pull all together,*" which can alone help us out of our misery. We are quite strong enough, if we be only united. *The relief of agriculture is anything but an unpopular question, except among trading politicians and philosophers. All the country towns, and a majority of the working classes, are in reality with us: they are as sick of the uncertain employment induced by bad profits, as they are of ingenious theories.*

In the event of your Lordship inclining to the line of conduct which has just been suggested, (and I do not think it would run counter to any of your views,) would you object to bring forward a motion worded somehow thus?—"For a Select Committee to inquire into the causes which have produced the long continued and still existing depression in British agriculture, with a view to their immediate removal." Such a motion, it appears to me, would be satisfactory to all our friends. No one else, I think, would be inclined to offer any other for the consideration of the House. I for one should not: but should be most content to fight (as indeed on this subject I always have) under your lordship's banner, under circumstances to command the greatest chance of success, in that great pitched battle, for the very existence of our agriculture, which must sooner or later be fought within the walls of Parliament.

In introducing a motion of this kind, it would not devolve on the mover, as an absolute necessity, to enter into currency or any other topic, to which there might not be a leaning in his own mind. Every one would see, by its very terms, that it was left open to any member to explain his own views. *It is only when concertment is desired* that it becomes necessary to place limits on the discussion of an inquiry into a subject like this. The committee you would be asking for would have the exposure of truth, and truth alone, in view—to which no honest man ought to object. When the truth was fairly exposed, and it could be no longer denied what the source of the distress really was, there would then arise another question of equal importance, but one in which the sufferers could much better help themselves at another election, viz.—*whether Parliament, knowing the source of the evil, and of its continuance, would consent to grant the relief required.* If it refused the relief, or if it knew its duty so little as to

allow the first interest in the country—the solid foundation of the prosperity of the whole—an interest with which twenty millions of our population are as closely identified as the plougher of the soil and the sower of the seed—if it knew its duty so little as this, I trust the constituents of the country know their duty better.

The melancholy fact, my dear Lord, is that our agriculture cannot go on as prices now are. Three-fourths of the arable soil in Great Britain cannot pay the expenses of cultivation at the present rate, much less leave a surplus for rent. A state of things like this is not only ruinous to the parties, but is dangerous to the institutions of the country. Men lose their respect for the government under which they live, in nearly the same degree as their interests are neglected and themselves forsaken by their rulers. Can it be our duty, at such a crisis, either as members of the legislature or as private individuals, to remain supinely tranquil and with our hands behind us? Surely not; on the contrary, every nerve should be strained, every effort united, without consideration of party politics, to effect a deliverance from our dreadful condition. The farmers, as a body, are worse off this year than last. I ventured a year ago to predict the present fall in wool, stock, barley, and oats; as the scarcity of them ceased, they were sure to fall to the level of wheat. I said that barley, if it were an average crop, would be below 23s per qr. In my own neighbourhood it sold last market for 21s. How fearfully has the anticipation been realized! And yet the harvest and crops have fallen far short of what were expected. Every market, notwithstanding, prices tumble down. Oats, 14s a quarter, which last year were 24s and 26s. Sheep unsaleable, and wool fallen 25 per cent! The only consolation for us is that the upland farmers and breeders will see that they are to form no exception to the general rule which has brought down their neighbours in thousands to the earth; under this conviction our numbers will be strengthened for the contest.

No better opportunity, therefore, has occurred for a cordial junction of the agricultural forces. I have even some hope that the landlords are rousing themselves from their apathy, alarmed for their property, now that corn wont pay its expenses—now that wool and stock, out of which, and which alone, rents have been paid for the last three or four years, are fast falling to a level with corn—now that the last shilling of their tenants' capital is gone. Half a century hence, who will believe the blind infatuation with which the landlords of this country have yielded themselves, hand-bound and tongue-tied, a prey to the crafty devices—the slow consuming poison administered by the political economists and the monied interest? The returns lately moved for by Mr. Dillwyn will also tend to dispel many delusions, and assist the inquiries and the conclusions of such a committee as has been suggested, and which, I fain would trust, under your Lordship's auspices, must now, from the urgent necessity of the case, be triumphantly carried, in despite of any Government, whether Whig or Tory, which, in the enjoyment of its own fixed incomes, and in the iron-heartedness of its power, should insultingly attempt to crush this righteous demand—this the last hope of the suffering farmer. I have the honour to be, My dear Lord, your very faithful servant,  
E. S. CAYLEY.

P.S. The objects of this letter being public, I shall not object to its publication. I can see no objection, but the contrary, to the whole country knowing our plans and determination to seek redress in the best way we can. It is a fair stand-up fight in which we have to engage. Relief, when it is carried, will be wrung from Parliament by no *coup de main* or cunning policy, but by imperious and acknowledged necessity. Publicly it will have this advantage,—it may be the means of bringing the minds of the farmers to some nucleus, and inducing them to urge a similar and simultaneous prayer to Parliament. *If we can only get the country gentlemen and farmers and provincial tradesmen to be unanimous, we shall soon see their representatives unanimous likewise.* Sufficient time will elapse between this and the next session, for communications to pass on this subject between the members and the constituencies.

## ON THE HUSK, OR HOOSE IN CATTLE.

TO THE EDITOR OF THE MARK LANE EXPRESS.

Sir,—About a twelvemonth ago, I sent you some account of this disease, which, as you considered of sufficient importance for insertion in the *Mark Lane Express* (for which I feel obliged) and as several other papers copied it from your columns, perhaps some further particulars attending it, which have come under my observation, may not be uninteresting to some of your readers, and may tend to afford, or elicit from others, additional information as to the cause and cure of this extraordinary disease.

I have this Autumn had another attack of the husk among my cattle. It made its appearance about the same time as last year, but did not prove so fatal in its effects. The symptoms were precisely similar, being, cough, with frothy discharge at the mouth, short breathing, weeping of the eyes, hanging of the head and ears, and continual inclination to rub (either on the ground or over a rail or fence,) the throat. About ten or a dozen cows and heifers were effected this year, but have all recovered. My weaning calves of this year were affected, but very slightly. The only remedies I applied in the present year were, making them inhale lime-dust, and spirit of Turpentine diluted and poured into the nostrils. But although I have taken considerable pains to ascertain the comparative merits of several remedies, particularly in the previous year, I am unable to speak very confidently as to the effects of any of them; all I know is, that in 1834 fourteen died and several others were so weakened and stunted from its effects as to be worth only about half what they would otherwise have been; and that in 1835, with similar treatment, all have recovered; and not only so, but when the disease goes off, those to which no remedy has been applied, appear to recover as well as the rest. It may be worthy of remark that the seasons in 1834 and 1835 were in this part of the country similar, both being dry Summers and growing Autumns.

At one time I thought the disease contagious, but from all I have been able to observe myself and learn from others, I am of opinion that it is epidemic but not infectious; that the cause is in the state of the atmosphere, as with the cholera\* and other epidemic diseases, and probably taken by inhalation.

One circumstance, which at first led me to think it contagious in addition to having numbers attacked about the same time was, that in each year, one of the fattening calves in the pens, where they had nothing but milk, became affected with a cough, and indications of consumption; but on examination when killed, I found the lungs ulcerated, but in both cases entirely free from worms.

Out of the fourteen which died in the previous year, 1834, two or three which had been as bad as any, but had rather stronger constitutions, remained in a dwindling state for some weeks after the disease had gone off from the others, and on examination, when they died, the worms appeared to have either died or left the lungs, but left them too much diseased and ulcerated from their ravages, for recovery. The head and throat of these were swelled previous to death, like those of a sheep in the last stage of the rot. I have found the cows have soon recovered when they have been housed, and fed on hay and grains, but this has happened to be about the time of year when the disease seems to go off naturally; so that this kind of diet may or may not have any effect on the disorder. At any rate, as dry food is recommended by some cattle doctors, it is worthy of further trial.

At the time the disease was at its height in 1834, Mr. Brown, surgeon, of Lewisham, who happened then to be attending my family, took considerable interest in the progress of the disorder, and examined the lungs and windpipe of one which had died. He found a few

\* Dr. Jenkins, in his Treatise on the Cholera, remarks that it rages most in seasons when the progress of vegetation is most rapid.

straggling worms enveloped in frothy matter, within the windpipe, which appeared either to have crawled or been coughed up; at the bottom of the windpipe, and throughout the main air vessels of the lungs were clusters of worms knit up together, sufficient in quantity to fill a common sized tea-spoon. The inner membrane at the lower end of the windpipe, was eaten away, and the lobes of the lungs considerably ulcerated. To the naked eye the worms appeared to be a sort of *Ascarides*, about as thick as a thread, and from an inch to an inch and a half long; on using a strong magnifying glass, they appeared about the size of a common eel, sufficiently transparent for us to observe the circulation of blood through their veins; and in shape pretty much like a leach; when first taken out they appeared rather dormant, but warmth seemed to revive them. The animal from which they were taken, had been dead about six hours. Mr. Brown appeared to doubt whether any remedies could be applied sufficiently strong to destroy the worms, without endangering the life of the animal, but recommended as an experiment, giving twenty grains of calomel and a little scammony, and make them inhale gas made from muriatic acid, manganese, and vitrol, similar to that used in fumigating apartments to prevent infection in fevers and other contagious diseases. These remedies I tried without any perceptible effect. In referring to an old work on cattle medicine, he found in the margin the following note. "Young clover will expel all kinds of worms in cattle."

In my former letter I mentioned several remedies which had been recommended by writers on cattle medicine and others; I will now enumerate some others which I have since met with: and so much from the proofs I have had of their efficacy, as for the purpose of affording an opportunity to the better judgment of others who may have their cattle affected in a similar manner, to select such as they think proper.

Mr. Clater of Retford, in his "Every man his own Cattle Doctor" says, "The Hoose or cough in cows and young cattle, proceeds from their taking cold either after calving, or from being kept in a warm hovel and afterwards exposed to the inclemency of the weather. The symptoms are shortness of breath; continual motion to cough or hoose—difficulty of respiration, which seems to press hard upon the diaphragm and abdominal muscles," and recommends the following drink—

"Balsam of sulphur, 2 oz.; Barbadoes tar, 1 oz.; 2 eggs; ginger, aniseed, cummin, Elecampare roots, grains of paradise, and liquorice-root, each 1 oz. in powder; salt of tartar,  $\frac{1}{2}$  oz.; honey, 4 oz.; given in ale or gruel, with a glass of brandy."

"Let this drink be repeated every other, or every third day, for three or four times. If it be at the commencement of the disease, one or two drinks are generally sufficient. When this disease is of long standing it is seldom removed without first a purging drink of 1lb of Epsom salts, 2 oz. of ginger, and 1lb of treacle."

The same author speaking of the "hoose in calves," says, "This disease most commonly attacks young calves the first year, while at grass in the summer. In some dry summers it has carried off large numbers. Upon examination after death, the author has frequently caused the gullets to be laid open, and found a bunch of worms netted or matted together. These, by their constant tickling motion, cause the young animal to be almost in a constant state of hoosing or coughing, by which the powers of digestion are so much injured, as to render the chewing of the cud impracticable; and if proper remedies are not applied, they languish and pine away like a consumptive patient. The following drink will be found effectual in destroying these kind of vermin.

Wormwood and savine, each two ounces; Indian pink, half an ounce.

Cut or bruise them small, and put them into a pitcher with a quart of boiling water; cover them down and let them stand till next morning, strain them through a cloth and add, ginger in powder, half an ounce; aniseed, fresh powdered, 2 oz.; linseed oil, 2 table spoons-full; mix and give it warm.

The calf must fast two hours before, and two after the drink. Repeat it every other, or every third day. This is a proper dose for a calf six or eight months old, and may be varied a little according to the age of the animal, and continued for three weeks, then leave off a week and repeat it again if the calf still remain unwell.

"Worms in horned cattle are not very common, except in the above cases. In many instances where calves have been so bad of this disease, as to baffle the power of other medicines, it has instantly given way on their taking one tablespoonfull of spirit of turpentine without being mixed with any thing. It may be repeated every third morning for three times."

Now by Mr. Clater's description of "opening the gullet," and "the powers of digestion being so much injured as to render the chewing of the cud impracticable," it appears to me, that he found the worms oosing, or swallow, or passage to the stomach, and not in the windpipe and lungs; and the remedies, such as wormwood, savine, &c., are such as are generally used for worms in the stomach and intestines, whereas on examination of those which died of mine, and which was done very carefully in almost every case, the stomach itself and the passage thereto was perfectly healthy and free from any kind of worms, and their appetites were good while they had strength to stand up to eat.

In the "Complete Grazier," this disease is treated on as follows:—"Cough:—When calves are exposed at too early an age to all the vicissitudes of the weather, before they acquire sufficient strength to undergo the changes of this climate, they are liable to take frequent colds, the consequence of which is, a cough that often proves fatal if neglected. For curing this malady, it has been recommended to pour half a table spoonful of spirit of turpentine into the calf's nostrils, the nose should be smeared with tar, and the animal kept within doors for a few hours, repeating this treatment as often as the cough becomes troublesome."

This work says nothing about worms, but treats it as a common cold or cough. Another remedy recommended is assafoetida dissolved in hot water, a quarter of an ounce at a dose every other morning, without food for an hour or two before and after.

Inhaling the fumes from burnt tar, and tarring the nostrils are also recommended. Mr. Cleeve, a friend of mine, near St. Albans, has just informed me, that a neighbour of his has found assafoetida, (I suppose the common solution) vinegar, and aloes, in equal quantity, and poured it into the nostrils, a most effectual remedy.

If it will not be trespassing too much on your space, and the patience of your readers, I beg to conclude by giving a short account of an experiment tried on a cow, when choked with a piece of Swede turnip, with complete success, by Mr. W. Moorey of Peckham to whose skill in the performance of the operation great credit is due. The probang and chock-ropes had both been used, but the shape of the obstruction was such that they both slipped by without removing it; the cow became hoven, or blown, as is generally the case by the efforts to swallow, and stabbing was had recourse to, which gave temporary relief and time for the operation: which was, to open the throat and ousing, and take out the piece of turnip, the outer orifice was then sewn up. The cow was kept for a few days on gruel and then turned out to graze. The only inconvenience which occurred afterwards was, that the food oozed out from the swallow through the incision before it grew up, and required emptying by cutting the stitches, which was done two or three times. This occurred last March, and I have the cow now quite sound.

I am Sir, respectfully your's,  
Lewisham, Nov. 16, 1835. GEO. COLGATE.

SINGULAR FACT.—Five thousand bushels of wheat have just been received in New York from Liverpool, which were shipped from that port in 1831. A sample was exhibited, which appeared to be in perfect order.—*New York Paper.*

## ON THE APPLICATION OF THE POINTS BY WHICH LIVE STOCK ARE JUDGED.—TO THE SHETLAND BREED, &c.

By MR. JAMES DICKSON, CATTLE DEALER, EDINBURGH.

(From the Quarterly Journal of Agriculture.)

The Shetland cattle inhabit the Shetland Islands. These form the northernmost group of islands belonging to Scotland. They have a barren and wild aspect when viewed from the sea, and their interior presents little else than pools of water and bare rocks; not a tree or a shrub is to be seen on them, and the herbage is as comparatively poor as their aspect is barren. The small islands, however, called the Holms, are covered with better pasture. But poor as the islands are, they contain a peculiar breed of cattle and horses both very diminutive in size. The cattle are comparatively valuable on account of the fine quality of their beef. Their symmetry is not quite correct according to the rule which we have laid down for judging cattle; the line of the back being rather hollow: the ribs are pretty round, the tail head droops, and the fore quarters and belly are fully too large. This form, which indicates starvation, may accordingly have arisen from the coldness and wetness of the climate, and the scantiness of food; for if we look at the kindly touch, the sleek soft hair, the fineness of the muscle, the fullness of the eye, and sharpness of the horn, they ought to feed pretty well; and, accordingly, they do feed fat on tolerably good pasture. Their colour is uniformly black, light red, or black and white. They are naturally the smallest breed of cattle in the kingdom, weighing generally from 16 stones to 20 stones the four quarters, and when extra fat from 25 stones to 30 stones. I have seen them fat at 14 stones or 15 stones. The beef is of the very finest quality throughout, being as small in the grain as mutton; the fat well intermixed, and the flavour most delicious. In fact, in point of quality, they are without exception the finest cattle that are bred in the kingdom. The cows are not great milkers; but the milk is very rich.

TO THE ORKNEY AND CAITHNESS BREEDS.—The Orkney Islands lie to the north of the coast of Caithness, which is the northernmost county in Scotland. The climate is cold, and variable, and late; but frost and snow continuing only a short time on the ground the grass gets leave to grow. The pasturage is better than in the Shetland Islands. The county of Caithness lies generally low, and having no high land to the north, to screen the low land from the strong north-west wind, which blows almost incessantly in spring, the grass cannot be expected to be early.

The cattle of Orkney, though much larger than those of Shetland, are much less symmetrically shaped, and not so fine. The back curves above the straight line, and is narrow; the ribs are flat; the hind quarters thin; all the bones coarse, and those in the body prominent; the head droops, and the horn short and blunt. Their general symmetry and poor coat indicate them to be slow feeders, and incapable of early maturity.

The Caithness cattle are not unlike the Orkney. They have narrow backs, flat ribs, and as a natural consequence, large bellies, and narrow chests. Many of both the Orkney and Caithness cattle are trained to work, and are kept till above seven or eight years old, when they are sold quite lean, and fattened off afterwards. They are then called "runts," a Scottish phrase which technically means "an old cow that has given over breeding,"—a phrase not inex-

pressive of the old useless appearance of this breed of cattle. I have seen these runts bought for very little money; but nevertheless they pay the feeder well, because having age, they feed rapidly on good pasture, and the beef is pretty good. A great many of them are exposed for sale at the Kyle of Sutherland market, and thence driven south to the Scotch and English markets.

Many spirited agriculturists have of late years greatly improved both the cattle and the face of the county of Caithness. There is much turnip land in this county, which being sown with turnips enables the feeders to feed their own flock. Many of the fattest beasts find a ready market in Caithness in summer during the herring fishery. This species of national industry has increased so much in this quarter, that perhaps not fewer than 30,000 people are employed in it annually on the coast of Caithness. The fishermen make good wages, and are able to live well on butcher meat.

Should steam navigation be introduced for the conveyance of live-stock from this quarter of the country, the breeders will be enabled to feed off all their stock, and send them direct to the Edinburgh market, instead of exposing their lean stock for sale, or depending only on the immigration of fishermen in summer, for the principal consumption of their fat stock.

Improvements have chiefly been effected by stewards brought on purpose from the south country, or south country farmers taking farms in that part of the country. The Messrs. Horne of Stirkoke and Langwell have Berwickshire stewards, who have set examples of management to their neighbours. Mr. Traill of Ratter is one of the most spirited improvers in this county. Mr. John Patterson, in what is called Lord Rae's country, now the property of the Duke of Sutherland, has made great improvements at Leangill.

TO THE NORTH HIGHLAND BREED.—In the counties of Sutherland and Ross are many breeds of cattle. The native breed is called "North Highlanders," which are scarcely distinguishable from the cattle of Orkney and Caithness; in East Ross and Cromarty, is found the large breed of Banff and Aberdeenshire; and in many other parts the "West Highlanders" are found. Of the West Highland breeds, the breed from the island of Lewis, belonging to Ross-shire, is a smaller breed than the runts of Orkney and Caithness, and it possesses very little if any better symmetry or quality. But the Dunrobin West Highlanders form the pride of Sutherlandshire. They are bred by, and belong to the Duke of Sutherland at Dunrobin Castle; hence the name.

The Dunrobins are well known both in England and Scotland as superior West Highlanders. They attain to great size on the pastures of Dunrobin, which are considered as fine grazing land as in Scotland. I remember a lot of sixty four-year olds being shewn about twelve years ago at the October Falkirk Tyrst. They had the most sprightly and splendid appearance of any north country cattle I ever saw. They shewed beautiful symmetry, straight level backs, round deep carcasses, great substance of flesh, strong fine bone, fine coats of hair with small muzzles, quick eyes, and large sharpe pointed spreading horns. The only fault which could have been found in their symmetry was the large proportion which the force bore to hind quarters. They were fine fat, and would have weighed fifty-five stones the four quarters, and were purchased by the late Mr. Henry Lee of Scateraw in East Lothian, an eminent feeder of cattle, for 13 guineas a piece. Mr. Lee sold them by public sale some months after,



when they averaged about 23/ a-piece, as they were considered very superior animals in every respect; but on being killed they did not prove well. They wanted weight, quality, and fat to their appearance, and turned off very large hides. I have heard it maintained, that the large hides and horns evinced, that they had a dash of Irish blood in them. In these respects, they certainly did resemble the Irish; but not at all in the general appearance. I have seen a lot of cows and young cattle of the same breed on the farm of Skelbo, belong to the Duke of Sutherland. These I considered equal to the Dunrobin cattle. Skelbo is an excellent management. It had been improved by the late Duke as a pattern and stimulus to his tenantry. It is situate on the side of Little Ferry, and carries excellent crops of corn and turnips. I understand that Sir William Watkins Wynne of Wynesty in Wales, purchases three-year old Dunrobins every year, and uses them for his own table after feeding them two years. The last lot of that age I ever saw sold was for twelve guineas each.

A small breed of cattle called "Skibos," are bred on the property of Skibo in Sutherlandshire, belonging to Mr. Soper Dempster. They are nearly as small as the Shetlanders, but much more symmetrical and beautiful, and nearly as fine in quality of beef. The tenants on the property of Skibo have the privilege of driving those which they have to dispose of for payment of rent, to the estate of Dunnichen in Forfarshire, a property which belonged to the late celebrated George Dempster, "the honest Scotchman," as he was familiarly called by George the Third, but now to Mr. James Whitshed Hawkins, to dispose of by public auction. Thither gentlemen from all parts of the low country go to the annual sales, and give exorbitant prices for these small creatures, to fatten for the use of their own tables. Skibos are exceedingly neat, having straight level backs, pretty round ribs, small bone, sharp muzzle, keen bright eye, and fine small sharp-pointed spreading horns, with a soft thick hairy coat, and sweet touch; they possess most of the good properties of a fast feeder. Looked on from above downward, they are rather narrow, and perhaps long, for their breadth; but when extra fat they cover the tops of the ribs well, and show remarkably fine points. The beef is of the finest quality. These annual sales take place in the beginning of October. After being kept two winters and a summer on good keep, they attain to the weight of from thirty to thirty-five stones; and if kept for another year, they may be forty stones. The drove consists of from 200 to 300 stots, never queys, of two and three year olds, and a few older; but the youngest fetches the highest proportionate price; and of all the colours of black, red, dun, and brindled, the black and red coloured are generally the best feeders, and the most symmetrical. The prices given at these sales are quite fanciful.

The horned cattle in East Ross and Cromarty, though like the horned Aberdeenshire, are rather smaller, and something like the smaller sized runts, and the best of them might feed, if very fat, to fifty stones; but their ordinary weight runs from thirty to forty stones. Great numbers of cattle might be fed in this district, as it is one quite suitable to corn and turnip husbandry, but ready markets being situate at a great distance, raise a barrier against their being generally fed, although many of the lots which are driven to the south are in prime condition. There is a spirited farmer who farms extensively in East Ross, Mr. Archibald Dudgeon of Arboll, from East Lothian, who feeds a good many sheep and

cattle, which he brings to the Edinburgh market once a-year, about May, from a distance of upwards of 200 miles. I have seen him show very superior sheep of different breeds, but the distance is too great for heavy cattle to travel without injury. What an advantage would steam navigation prove to Mr. Dudgeon and others similarly situated, as a means of conveyance to a ready market like that of Edinburgh! Although the district is well adapted for feeding, it will never become an important one as such without the assistance of steam navigation, which in this quarter should be conducted in a particular manner. To use a steamship to advantage in this quarter, the supply should be confined to the Edinburgh market, for the want of cheap coals in that part of the country precludes the possibility of a profitable voyage to London. Driving the cattle to the London steamers at Aberdeen would knock them up when ripe fat nearly as much as to a greater distance in a leaner condition. But even under present circumstances, breeders preparing stock for dealers or feeders in the south, never can put them in too high a condition. They may depend upon it that they will be repaid for extra keep, as high condition will never be found fault with by dealers. On the contrary it will be appreciated, though from no other consideration, than that good condition enables an ox to travel well; and if well driven, much of the firmer part of the condition will remain, though part of the softer portion must of course be lost in the driving.

The North Highlanders are found in the counties of Caithness, Sutherland, Ross, Inverness, Cromarty, and Nairn.

TO THE ABERDEENSHIRE BREEDS.—There are various breeds of cattle in the county of Aberdeen; but the kinds which more properly belong to it are three,—the polled cattle of Buchan, called Buchan doddies, the large-horned cattle of Aberdeen, and the small-horned or Bræe cattle of Aberdeen.

The Buchan doddies are an esteemed breed of cattle. They are generally symmetrical; the back being straight, and nearly level, but having the top of the rump and the tail-head a little too much elevated; ribs roundish, being a little flat near the back bone. The side view is pretty rectangular, the deviations occurring by the brisket being deeper than the flank, the rump and tail-head being higher than back and shoulder tops, and being a little light at the buttocks. When viewed from above, the back is a little too narrow, and is wedge-shaped from the hooks to the shoulder. They have a good eye, and are generally good handlers, having a strong boned frame, capable of carrying much beef, which, when ripe, is placed pretty well upon the best points. Their colours are generally black, sometimes red, dun, and brindled, with scarcely any white. Their appearance indicates substance of muscular flesh and gaiety of disposition. When fed they attain from fifty stones to sixty stones at four years' old, and some even to seventy stones or eighty stones, and in some instances 100 stones at five or six years' old. The beef is of fine quality, adapted either for the cutting up or the shipping butcher, particularly the latter, and it is always in demand for that purpose, and they find their way to every part of the south country. I once had an opportunity of seeing at Cartel Haugh Show, near Old Deer, some fine specimens of bulls, cows, and heifers. There are always some fine lots of these doddies shown at Aiky and other fairs in that neighbourhood. The last time I was in Smithfield market I saw a lot of twenty very fine Buchan doddies, which had been bred and fed near Peterhead. They fetched 23/ a-piece, and were

of as good quality as any cattle in Smithfield that day, and were early sold. They had been conveyed from Aberdeen to London in a steam vessel. This mode of conveying fat cattle to the London market is an invaluable privilege to breeders and feeders in that part of the country. Indeed, it will there entirely change the prevailing mode of managing cattle. Instead of keeping them in a lean condition for two or three years in order to prepare them for travelling by age, they will be fattened on the spot, and sent off to London. To accomplish this desirable end in a short time, and thereby insure a quicker profit, they should be fed from the moment they are dropped. This improved method of feeding will cause the cultivation of a greater breadth of turnips, and perhaps potatoes. Bone-dust will secure an abundant supply of the former; and when the London market is at command, the London prices will repay for extra feeding. Captain Barclay, in Kincardineshire, Mr. Stronach in Aberdeenshire, and Mr. Miln, of Mill of Boydnie in Banffshire, send fine well fed cattle to London.

The Brae breed of Aberdeenshire cattle is a middle-sized horned kind, of pretty good symmetry, and rather plain skinned, but they are favourites with the graziers in Aberdeen, Banff, and Morayshires, as they are clever travellers, and seldom exceed in weight from thirty stones to fifty stones when fat. They also cut well up for the retail butcher. Morayshire is not a great breeding county, the graziers purchasing these brae cattle at the markets in East Ross and Cromarty. These brae cattle are well suited for wintering on half turnip and straw, and feeding off in summer on grass. Their beef is of fine quality, and, from their moderate size, they are much liked by butchers for summer killing. I have frequently observed that no beef is better mixed, or cuts better up.

In the interior of Aberdeenshire, towards Huntly and Keith, and through many of the low-lying grounds elsewhere, is a large horned, heavy breed, called runts. They have large frames, strong bones, long legs, a gaunt appearance, smooth hair, large hooves, and the top of the head surmounted with very thick, broad long spreading turned up horns. The colour is generally black, with some patches of dead white about the belly and face. The muzzle is thick, and the eye dull and heavy; they stand high on the legs, are long in the body, and have great ends and small middles. They attain to fully as great weights as the Buchan doddies. Many are worked in the plough till seven or eight years of age, and then sold to be driven south or fed at home. Some of these cattle are bred by the Duke of Gordon, Earl of Aberdeen, Earl of Kintore, Earl of Aboyne and others.

The show of the Highland and Agricultural Society, which took place in October 1834, at Aberdeen, clearly proved that the Buchan doddies are displacing these large horned runts; and no doubt properly, for they are a finer breed of cattle. There was a considerable display of bulls and cows of the doddies, and but a few of the horned breed. This change in the breed is ascribed to a change of management of cattle during the winter in this district. Formerly all the cattle were housed in winter, and it mattered not whether they had horns or not, for they could not injure one another when each was separately tied up; but now it is found better for their health, and the preservation of their travelling condition, to feed them in straw yards; and as hatred and envy are their besetting sins, the doddies are less likely to gore one another than the horned, although even they can "give each other

plaguy knocks," but not, as in the prize ring, "with all the love and kindness of a brother." The superior kindly disposition of the doddies to fatten is of itself a sufficient inducement to warrant the change. A considerable quantity of butter and cheese are manufactured in Aberdeenshire, for the Buchan cows are good and steady milkers, although the milk is not very rich. The curing of beef, for which the heavy cattle of Buchan are well adapted, might be successfully prosecuted in this quarter.

While alluding to the subject of salting beef, I cannot refrain from making a few observations on the quality of the salt which is in this country used for that purpose. It is well known that the salt manufactured in this country from sea water is bitter and harsh to the taste. The rock-salt also is not devoid of the bitter taste.

The salt from St. Ubes, or what is called bay-salt, is somewhat similar, though not so pungent. The salt, on the other hand, which is manufactured from sea-water in Holland, has not the slightest bitterness or harshness to the taste. It has a pleasant pure saline taste. It is crystallized in large tables, is quite hard and dry, and emits a jingling sound when handled in quantity. It is said that the Dutch possess some secret in purifying the salt after it is made and to prevent this being made known, they will allow no strangers to visit this department of the salt works. It has been suggested to bring a Dutch purifier of salt from Holland. But if there is really any secret unknown in this country the Dutch government would not likely permit such an exportation. Now it is well known that in making salt from sea-water, the salt which is made on Sunday is very like Dutch salt, because on that day the water gets more time to evaporate. So that if more time were taken to make salt from sea-water, it would probably be as good as desired. As the process is at present conducted, the difference in the taste of the Dutch and British salt is obvious in the curing of butter, and no substance will retain a taint in its manufacture so strongly as butter. The Dutch butter retains its butyraceous flavour after being salted, and although it will keep untainted as long as desired, it has the taste of what fresh butter would have on being eaten with salt; whereas the British salt butter of commerce tastes as if it had been pickled in bitter brine. There is as much difference between these two states of butter as between fresh beef eaten with salt and salted beef. There is no art in preserving butter from a putrefactive taint by immersion in brine, as herrings are usually preserved; but there is a difficulty, it seems, to salt butter in this country, so as to retain its delicate flavour like the butter of Holland, at least it has never been attempted by the butter curers. Now this difficulty cannot arise from the quality of the butter; for as delicate and rich butter can be and is made in Britain as in Holland: the difference of taste, then, in the two kinds of butter, must be ascribed to a difference in the quality and use of the salt. But why need there be a difference in the salt, when the Dutch make salt from the water of the same ocean? This is the question. There is no doubt that the bitter taste of our salt arises from a salt of magnesia which is probably not driven off by the quick evaporation used in producing common salt, for we have seen that the Sunday salt has no bitter taste, and it must therefore have no salt of magnesia. Slow evaporation would thus get quit of the evil. It would get quit of it both from sea-water and rock-salt. Salt being so bulky and so low-priced an article, a large quantity must be disposed of it to repay the labour attendant on its manufacture. I suspect the above

difficulty of obtaining pure salt lies in this consideration. No analyses, then, of the Dutch salt, however ingenious, can discover any other thing than the absence of the salt of magnesia, and we know already by our sense of taste that salt does not exist in it. Till, therefore, a method is discovered of extracting or neutralising the salt of magnesia during the process of quick evaporation, for time will not be allowed for a slow one, we must be content to use an inferior article to the Dutch.

Dutch salt consists of three varieties, a very large crystallised, a smaller crystallised, and a fine crystallised. The whole is purely saline, and free from bitterness; so all the three may be used for preserving butter, and beef, but the finest is used for preserving butter, being mixed intimately with the mass. The larger is used for curing meat and it is admirably suited for that purpose, the large crystals melting slowly in the tub, the pickle is supplied slowly to the beef, which absorbs no more of it than is requisite for its preservation; and the beef is thus preserved tender; whereas the forcible introduction of salt into beef, in the shape of brine, hardens the fibre of the meat, and renders it dry by the displacement of the natural juice, and the bitter principle of the salt injures the flavour of the meat. The pure saline solution, gradually supplied by the large crystals, preserves the meat from putrefaction, but without injuring its texture or neutralizing its flavour. It would therefore be of national importance to take time and render our salt as innoxious as that of Holland, particularly for the preservation of that delicate article—butter.

TO THE ANGUS BREED.—This is a polled breed of cattle, and are technically called "Angus doddies." They are like the Buchan doddies on the one hand, and the polled Galloways on the other. They form an intermediate breed as to external characters. This breed has been much improved to what it once was, most probably through the intervention of a cross with the Galloway. Thirty years ago Lord Kinnaird, the grandfather of the present nobleman of that name, brought bulls from Galloway to cross with Angus cows to his farm of Idvies, now the property of Mr. Henry Baxter, advocate, in the central district of the county; others followed the same course, so much so that it is questionable whether a dodded Angus beast can now be found without a dash of Galloway blood. The characters of the generality of Angus cattle are these:—back depressed a little over the loins, the rump and tail-head a little too high, and the top of the shoulder a little below the level line; the buttocks too thin, and the brisket not forward enough. Looked from behind and before, the body is not broad enough, the hook-bones being too narrow, the ribs flatish next the back, and the hind and fore legs too close together. Viewed from above, the breadth across the shoulder narrower than across the hooks, the body being a little wedge-shaped. The legs are of moderate length and well-boned; the muzzle a little coarse; the eye good; the ears a little too thick and hairy: of course the head is hornless, but tufted with hair, and the whole pretty well shaped, though not pleasantly set on the neck, which is rather too small at the onset of the head. The hair is short and smooth, the hide thickish, and the touch, though not harsh, not sweet. General colours, black, black with a few dead white spots on the belly and face, dark red of a dull and rich hue, and yellow red. These characters indicate a quiet disposition, and rather slow feeding. The common breed is capable of great improvement. Such of them as are in the possession of Mr. Hugh Watson of Keillor, the Messrs Mustard, Mr. Bowie of Mains of

Kelly, shew how blood,—a refinement in the tone of breeding,—can be attained in any breed by judicious care in the crossing with the same kind. But even yet the breeders of Angus cattle cannot with certainty depend on like producing like, the true criterion of a finished breed.

Mr. Watson has bestowed for a long time much trouble and care in selecting a beautiful stock of cows and bulls. In consequence he has shortened the legs, beautified the symmetry, rendered the coat finer, and the touch sweeter, and improved the points of laying the beef on best parts. He has shewn some fine specimens with these improved characters, particularly a pair of four and half year old oxen at the Highland Society shown at Perth in 1829; and a heifer of the same age, a most extraordinary animal for quality and substance, and weight in proportion to her height. Her brisket was only eight inches from the ground. I understand that she was sold for 50*l* in London, whither she had been sent at the request of the Highland Society. Her fore-quarters weighed 74 stones, and the tallow was equal to the weight of a quarter. Mr. Watson also shewed a pair of oxen, of the same age, at the Highland Society show at Kelso in 1832. These were considered by judges superior to the pair shown at Perth, and perhaps they were the best oxen of the breed that ever appeared. They were afterwards slaughtered in Edinburgh, and turned out 105 stones the four quarters. There is a remarkable appearance, though not a very pleasing one which a very fat Angus beast exhibits, the smooth glossy skin appearing as if it were quite stuffed out to the full stretch.

Were the breeders in Angus to bestow half the attention which Mr. Watson and a few others bestow, the breed would soon display a different appearance in point of quality. It ought to be a pleasure to any breeder to possess animals of the finest quality. But too many are afraid to lay out a few pounds on a good bull, and would rather employ any one that can only get a cow with calf, and buy every sort of calf that is polled that comes in their way. Nay, they will even buy a horned calf, if cheap enough, and make it polled by a cruel operation of extracting the embryo of the horn. This random mode of breeding makes very unequal lots of cattle when brought into the market. They are so unlike one another in appearance and value, that the purchaser invariably points out the worst animals in the lot, by which to depreciate the value of the rest. In some respects these breeders are like the Irish farmers who will not winnow, but will obstinately persevere in selling the light corn and chaff along with the better grain. They of course always receive a low price. In like manner, these breeders will not assort their lots to suit the taste of different customers; they will not break their lots, as they call it, for the purchaser must take the whole overhead, rubbish and all, or want them. And, as to the breeding of bulls, no selection is generally made, the calf of a cow which is a great milker, if it happen to be a bull calf, is sure to be kept for a bull, regardless of the bull that got him, though he should not have one single good point on him. Now, no mistakes can be greater than those, and no injury is so hurtful to the breeder as that arising from the use of an inferior bull. A good bull may get a good calf by a very inferior cow; but an inferior bull can never get a good calf by any cow. This holds good in every breed of cattle, and more strikingly in an inferior breed. I once saw a short-horned cow which had, by chance, been bred by a very ugly North Highland bull; the calf (a quey,) was black, though the cow was a beautiful roan, and it was fed till three years old. The same

cow had a heifer calf, the following year by a short-horn bull, which was fed for two years. Both were sold at the same time; the two-year-old fetched 13*l*, the three-year-old only 10*l*, besides losing one year's keep. These remarks are not intended to apply only to the breeders of cattle in Angus, for I know other counties in which this careless system is pursued much more systematically than in Angus; but that being a fine country for breeding, both by soil and husbandry, it is not unreasonable to expect a better system to prevail there than in poorer districts.

There is an immense number of cattle fed annually in Angus, and there is no breeding district which contains such a vast flying stock, many of the cattle bred in the north being fed off in this county. In the spring months more than one-half of the Glasgow market is supplied from this county, to the amount of three hundred head a-week. Some of the feeders fatten from 50 to 200 head of cattle in winter. The principal feeders are Mr. Watson of Keillar, Mr. Dalgairns of Ingliston, Mr. Kirkaldy of Fullerton, Mr. Mill of Woodhill, Mr. Inches of Cardean, Mr. Farquharson of Baldovie, Messrs. Proctor of Glamis. The age of feeding off is generally four years, and some of the best, which are sent to Glasgow, weigh 60 or 70 stones. Many of the feeders in Angus do not breed at all, and they either purchase for themselves, or from dealers who select lots among the cattle in Aberdeenshire. Mr. Peter Watson at Kirriemuir frequently dealt in this manner, and I have known him get 20*l* a piece for Aberdeenshire cattle to be fed off in Strathmore.

The Angus cattle have extended over the whole county of Kincardine, and a large portion of the south of Aberdeenshire, to the exclusion of the large horned breed, for similar reasons to those already given for the partiality of the Buchan breed. They have also found their way in many parts of Fifeshire. Large droves are annually sold to English dealers in the great markets in the county, at the Falkirk trysts, and at All-Hallow Fair at Edinburgh, who graze them and send them onwards, as they attain condition, to the English fat markets, and ultimately to Smithfield. They almost always pass in England under the denomination of Gallo-ways, or if fed in Norfolk, they are called Norfolk Scots.

### THE IPSWICH PLOUGH.

"I hope that one of the consequences of this ploughing match will be, to show the farmers that it is not the best mode of economising their means to make four horses and two men just do the work which might be done by two horses and one man."—*Lord Stanley's speech to the Liverpool Agricultural Association.*

TO THE EDITOR OF THE MALDSTONE GAZETTE.

SIR,—Amongst the important benefits of the newspaper press, is the facility it affords for the immediate discussion of those matters of interest that from time to time occur. In your remarks, in the last *Gazette*, upon the ploughing match of the Rochester and Gravesend Agricultural Association, when alluding to the two-horse plough exhibited there, you appear, though not a farmer, to be well aware of the importance of ascertaining the comparative merits of two and four-horse ploughs, and kindly offer your columns for discussing the subject. I avail myself of the offer to provoke enquiry, whether four horses are necessary to plough the greater part of the land in this county? an enquiry particularly called for at this period of agricultural depression.

Many years ago I adopted, and have continued to

this time, the use of Ransom's plough, but my example has not been followed,—a notion being entertained that the Kentish plough only was adapted to Kentish land, and whenever the two-horse plough was mentioned, the remark was, "*It cannot plough the land.*" This observation is no longer made, for after two exhibitions of its powers in competition with upwards of thirty turn-wrist ploughs, drawn by the most powerful teams in this neighbourhood, and managed by the most experienced ploughmen and drivers,—it is reluctantly admitted that *it can plough the land.*

The difficulty of overcoming prejudice is proverbial, and fresh objections are started to this simple and efficient implement. It is urged that the use of it does not admit of a less number of horses being employed. It might as well be said that if the land were ploughed by steam, the same number of horses must be kept for the other purposes of the farm. There can be no doubt but that the ploughing of every acre of land with double the requisite number of horses, is done at double cost to the farmer.

Another objection is, that the seam made by the light plough is not sufficiently deep to bury the seed. Admitting this objection to be valid, it can only apply to grain sown upon the furrow; but the fact is, that in nine cases out of ten, the seam of the Kentish plough is obliterated before sowing, by a favourite operation in this country, called *creasing*. The seam left by that ploughing which you witnessed was intended to be so effaced. But this objection is of no force, as there are thousands of acres of land, in other counties, sown upon the seam left by the Ipswich plough.

These are the objections now made to the two-horse plough, and which I think must be admitted to be trifling. In combating them I have sometimes referred to my own crops, in proof that no injury necessarily attended its use, but it has been said that these afford no criterion, on account of their being so highly manured.

Whilst thus advocating the merits of this plough, I readily admit that the only objection to the turn-wrist is its great waste of animal power, and consequent loss to the farmer. No plough can do its work better, and there is one kind of soil—that in which large flints are imbedded—where it excels all others, as from its great weight and steadiness it forces its way through obstructions which would break or throw out lighter ploughs. This soil is, however, at the present low price of corn, scarcely worth tilling, and is comparatively of small extent. Upon all the other land in Kent, the two-horse plough is, in my opinion, fully sufficient.

I have thus, Sir, thrown down the gauntlet in defence of the two-horse plough, which I should not have had the courage to do, if hundreds of spectators had not witnessed its performance two succeeding years, at the ploughing matches of the Rochester and Gravesend Association. It is possible that these ploughing matches, instituted for the encouragement of the labourer, may ultimately materially benefit the farmer, by directing his attention to an implement, the use of which would enable him to plough his land at half the present expense. I remain, Sir, your obedient servant,

Hermitage, Nov. 11, 1835. THOS. BENTLEY.

VEGETATION.—M. Reum, in a treatise on vegetation, while he enumerates the causes which act upon it, mentions that of minerals. First, he says, that plants never fructify in distilled water; then that a root which meets with a pebble in its progress under ground, turns itself round it, and is much injured if detached from it; and in Wirtemberg, when a willow is planted, a stone is put in with the slip to make it grow stronger and faster. He adds, that when a tree appears to languish, heaping stones all round it will frequently cause it to recover: and if one or two roots be planted, and charcoal dust be put in the hole with it, and the other be inserted with powdered talc round it, the latter will succeed much better than the first. Plants always thrive best in soils oxydized by iron, such as basalt, porphyry, &c.

## ROYAL BUCKS AGRICULTURAL ASSOCIATION.

### PUBLIC MEETING AT AYLESBURY.

A meeting of the members of this association was held on Wednesday, Nov. 25, at the George Inn, Aylesbury, to receive the report of the deputies of this association, appointed to meet those of other agricultural associations, and to consider the steps which the agriculturists ought to take in the present aspect of their affairs. One of the principal resolutions of the meeting of deputies was, it will be seen, repudiated by the Bucks Association.

The MARQUIS DE CHANDOS was unanimously called to the chair. The noble lord expressed his great anxiety that this meeting, and all others coming in contact with any deputations from associations of other counties, should strictly confine themselves to the question of agricultural distress, and not mix up that question with that of any alteration of the currency. If the currency question were mixed up with that of agricultural distress, he felt convinced that the consequence would be a total defeat in the House of Commons. He was happy to find that this opinion of not making a change in the currency identical with relief of agricultural distress, was supported throughout the country by those who expressed themselves publicly, and the private opinions which he had received from many quarters confirmed him in the prudence of the view that he had taken. Upon the subject of the currency he had never given an opinion, and he begged still to decline doing so; but he wished most emphatically to impress upon the minds of the landed proprietors, and farmers present, and upon the minds of all, who, through the medium of the press might peruse on account of their proceedings, that if the two questions were pertinaciously mixed up together, one result would be the inevitable consequence, viz., that to prevent the appearance of giving the slightest indirect encouragement to a change in the currency, the question of agricultural distress itself would be thrown overboard by the House of Commons, and the farmers would then be completely ruined. In his opinion the best line of policy which the agriculturists could adopt was to move for a committee of the House of Commons to inquire into the causes and trace out the sources of agricultural distress, of the ruin of the farmers, and how those evils could best be remedied. Having been before defeated on a motion for a repeal of the malt tax, he would not again bring forward that question, for he did not wish to place the agricultural interest on any question in a minority in the House of Commons. He was at all times glad to devote his best efforts to the landed interest, and he hoped that their proceedings that day would be unanimous, and that the persons forming the Royal Bucks Agricultural Association would show by their example that they had at heart the interests of the farmers throughout the country. (*Hear.*)

MR. MEDLEY (a banker at Aylesbury) stated, that 110 members of parliament were of opinion that, when entering into the subject of agricultural distress, the state of the currency must be taken into consideration, and expressed his regret that the noble lord then in the chair had refused taking upon himself the presidency of the "General Agricultural Association." If he did not consent, he was afraid they would be obliged to apply to another noble lord.

The MARQUIS DE CHANDOS said he was afraid he could not alter his original determination not to become president of the General Agricultural Association.

Sir W. YOUNG, M.P., wished to know whether, by receiving the report of the proceedings of the meeting, when the association was honoured by the presence of deputies from various other agricultural associations, they, the members of the Bucks Association, were to be considered as personally bound by the resolution of the meeting of deputies? (*No, no.*)

The MARQUIS DE CHANDOS—Certainly not.

The Secretary then proceeded to read the resolutions adopted at the meeting of deputies. On coming to

that which related to propriety of forming a Central General Agricultural Association in London.

Mr. R. PARKER objected to the constitution of a central agricultural union in London. His principal ground of objection was, that such a union would cause a discrepancy of opinion between the different parties now seeking to remedy agricultural distress; and the second ground of his objection was, that this union would give rise to a good deal of additional expense. He was of opinion that the county of Buckingham having been the first to take up the cause of agricultural distress ought to stand alone, and not be in any way a party to the formation of a central union in London.

Colonel PIGOTT was of opinion that it would be better to leave the General Agricultural Association to be formed of deputies from different provincial associations. They would find it more beneficial to hold their meetings in some large central town in one of the midland counties of England than in London.

A LANDED PROPRIETOR, whose name we could not ascertain, agreed with those who attributed the non-relief of the agriculturists to a want of union among their partisans, and that union would not be brought about by the formation of a permanent association in London, and he therefore concurred in the opinion expressed by Mr. Parker.

Mr. MEDLEY totally disagreed with the whole of what had been stated by the three preceding speakers. If their opinion were to be adopted, no relief could be obtained for the distress of the agriculturists. He insisted, from the strongest grounds of conviction, that the county of Buckingham of itself could do nothing, and that, by uniting with a general association in London, they could do every thing they pleased. He regretted to see that the landed aristocracy and gentry were disunited in their opinions upon this question. If union were essential, and all admitted that it was, there could be no point of union which offered so many advantages as London, where, during the session, all the members of parliament were congregated, and with which the greatest facility of communication existed. The agriculturists ought to place themselves in such an attitude as to be enabled to lay before parliament at one view a combined and explicit statement of the evils which afflicted the agriculture of the kingdom generally; for unless they could agree in a description of the nature of their sufferings, how could they expect parliament to agree in devising a remedy for them? The present union of the agriculturists was in effect little better than disunion, each party taking their own peculiar view, and asking relief after their own peculiar fashion. But if they were really and truly united, the consequence would be that they would sow dissension amongst the ministry, and that would give them all they wanted. Being of this opinion, he hoped that the formation of a general association in London would meet with the unanimous approval of that assembly.

Sir W. YOUNG, M.P., in reference to the plan of general combination amongst the agriculturists of England, which was first publicly broached at the meeting at Framlingham, and since at the meeting of deputies at Aylesbury and elsewhere, said that he felt the strongest objection to the formation of any regular board, union, or combination of deputies of this description. His objection was mainly founded on the unconstitutional nature of such a combination. Indeed the legality of it was very doubtful. He was an enemy to political unions of all kinds, which he thought inconsistent with the regular and ordinary administration of government; and, being thus opposed to political unions, he felt himself bound to, in consistency, to state his objections to that which was, in fact, a political union, for the avowed purpose of accomplishing certain and specified objects. He principally objected, however, to that part of the plan of the union which makes it a permanent body; and he for one would most positively decline taking part in the proceedings of any union, either in London or elsewhere, which assumed to itself the character of a permanent body. (*Hear, hear.*)

The Rev. Mr. YOUNG said that the General Association was intended to be purely an Agricultural Association, and that, of course, its object was merely the

discovery of a remedy for the distress under which the agriculturists now laboured. However, he could not see any reason why they should make it a permanent association, nor why, if permanent, they (the members of the Bucks Association) need entangle themselves with any of its other schemes. They were all agriculturists, and they ought to unite, and give as much effect as they could to the formation of this association in London, which they could do without, as it appeared to him, in any way compromising their independent existence as a separate and distinct society. (*Hear.*)

Mr. MEDLEY said that a memorial had been sent to the King that very day, inviting his Majesty to become Patron of the General Association in London; and when such was the case there was, he was sure, no cause to fear that the association was formed for political purposes, or that it was justly open to the objections that had been started respecting its legality.

Colonel PIGOTT again entreated them not to repudiate this resolution, which had been agreed to at the late meeting. He urged them to remember how all important it was to them that the friends of agriculture should be banded together in one strong body, and of what injury it might prove to their hopes that even the semblance of disunion should be exhibited by them.

The resolution for joining the agricultural union in London, which was carried at the meeting of the 12th, was then put, and lost there being 10 for and 17 against it.

The Marquis of CHANDOS then said the reason he refused to become the Chairman of the Central Board was, that he considered he could better discharge his duties towards the farmers of Bucks by attending entirely to their interests. He felt greatly the honour that had been conferred upon him by the offer made to him by the Central Association, but as he considered that by not accepting it his sphere of usefulness might be less limited, he had respectfully declined it.

Sir W. YOUNG said that he, as well as the Marquis of Chandos, had been invited to attend the Central Association, and in common courtesy he did not think they could altogether decline attending a meeting of such importance. For his part he should attend it, without pledging himself as a consenting party to anything that should be expressed or done by the order of this central board.

The Marquis of CHANDOS said he would attend the meeting in London, but he should do so simply as a private individual, as he considered it would be a great want of courtesy for any person belonging to the Bucks Association to refuse attending the meeting, which was to take place in London. He would attend it solely for the purpose of giving information, without pledging himself to any resolution which might be adopted by it.

A resolution which had been proposed at the meeting of deputies by Mr. Spooner, and agreed to at that meeting, respecting the proper standard of value, was then read, in which it was then asserted that nothing but an alteration of the currency could save the farmers from ruin.

Mr. BARKER moved that the resolution be rejected. He did not wish to give any specific opinion as to the effect of the currency upon agricultural distress; but as he thought that every petition to government to devise means for removing the present distress of the agricultural interest ought to be unaccompanied with any mention of the currency question, he moved the rejection of the present resolution.

Mr. MEDLEY said that the farmers were blind to their own interests—that they should go to the root of the evil, and that was the state of the currency.

Sir W. YOUNG said, that though he agreed with the original resolution, he did not wish to mix up the question of currency with that of agricultural distress.

After a few words from the Rev. Mr. Pigott and Mr. Manby, the original resolution was rejected, their numbers being 15 against it, and 8 in favour of it.

The Marquis of CHANDOS then said, since this resolution had been passed, he wished to know whether the association considered him bound by it, as to the course he might pursue in the House of Commons? (*No, no.*)

In the House of Commons, he should move for a committee to inquire into the state of agricultural distress, without himself giving any opinion as to the cause of it.

Mr. MANBY, and several other gentlemen, said they did not consider the Marquis of Chandos bound by the present resolution to any vote that he might give in a committee of the House of Commons on the subject of the metallic question.

The meeting then came to an unanimous resolution, that it was due to the interests of the British farmer, that a system of poor laws should be immediately introduced into Ireland.

A vote of thanks was then passed to the Chairman, and the meeting separated.

## TO SIR WILLIAM YOUNG, BART., M.P.

448, West Strand, London, Nov. 27.

DEAR SIR WILLIAM,—This morning's Herald contains a speech of yours at Aylesbury which has grieved me much, because, if your view of the subject be correct, mine must be wrong in urging the formation of a Central Association. Had you favoured the deputations at Aylesbury with the views developed on the 25th, we should then have been prepared to discuss the subject, and I should most indisputably have demonstrated that I had no *political* and most certainly no *personal* object in view, for I have already given more of my time and money (speaking relatively as to their value) to procure relief for the agricultural interest than any other individual in England. The resolution passed at Aylesbury, negating that adopted by the deputations, is so unfair towards Mr. Broun and myself, that were it not that we have higher objects to regulate our conduct than any paltry feelings of jealousy, I for one would leave the farmers to find advocates of their interests, who, however much more able than myself, could not be more disinterested. I rejoice however to find that other counties do not display the same spirit as Bucks, and that Lord Wynford (one of the highest lawyers England ever had), Lord Farnham, Lord Gage, &c., and other noblemen and gentlemen, have cordially seconded our efforts for the removal of a distress which the local sources have failed to accomplish, and which your own experience in parliament must have convinced you can only be obtained by a union of the proprietors and occupiers of land—a union which at present even your own association does not present.

P.S. Allow me to express my gratification that you have avowed yourself in favour of a conjoint standard of silver and gold, but my letters this morning from Aylesbury indicate a contrariety in your proceedings on the 25th inst.: for although you negated by a small majority (17 to 10) the resolution passed by the assembled deputies at Aylesbury on the 12th inst., for joining the Central Association, yet you appointed a deputation of five members to attend the general meeting in London at the Freemason's Tavern on the 15th of Dec., when I trust I shall be enabled to prove that no political views can or ought to be associated in a cause so hallowed as that of procuring relief for agricultural distress—a sentiment which I doubt not you will cordially concur in.

I beg to remain, very truly yours,  
R. M. MARTIN,

To Sir William Young, Bart., M.P.

## CENTRAL AGRICULTURAL SOCIETY.

TO THE EDITOR OF THE MARK LANE EXPRESS.

Sir,—With reference to an observation made in the letter addressed to you by the Editor of the *Buck Herald*, commented upon in your leading article of last week, viz., that "in the name of certain associations, I had proposed to the Marquis of Chandos, the chair of the proposed Central Association," permit me to remove

an erroneous impression which appears to have gone abroad, with regard to the resolution moved by me at the Meeting of Deputations, at Aylesbury, on the 12th inst., for the purpose of divesting the nascent "Royal Agricultural Society of Great Britain and Ireland," of all party objects and feelings, and to procure for it the support of all who have a stake in the soil, whether they be Whigs or Tories, Liberals or Conservatives. It is proposed that the society, when finally organized, shall, (like the "Highland Agricultural Society of Scotland") be under the direction of a president, vice-presidents, directors, and committees, to be chosen *annually* in rotation, from its members. Such being the case, I did not propose that Lord Chandos should become the chairman (i. e. president) of the society, but I submitted a resolution to the effect that, his lordship should be invited to become the chairman of the provisional committee for organizing it. The meeting unanimously resolved that Lord Chandos *should be invited* to become the chairman of the provisional committee. That resolution will be laid before the deputations, when they assemble in London on the 14th of next month, to arrange the proceedings for the general meeting on the day following; and if approved of by them, the resolution will then be communicated to Lord Chandos, when his lordship will have it in his power either to accept or decline the request made by the agricultural body.

Sir William Young, at the meeting at Aylesbury, on Wednesday last, expressed an opinion that the central society would border too nearly on a political and un-constitutional society, for him to give it his support. Whether Sir William has gathered his opinions of the central society, from the pages of the *Morning Chronicle*, or *Courier*, I cannot say, but I hope I do not violate the confidence of a private letter in stating that Lord Wynford, whose opinion as an eminent lawyer, will have due weight, cordially approves of the formation of the Society, has signified his intention to be present at the Meeting on the 15th December, and that he shall be ever ready to promote the objects of that meeting by every means in his power. Sir William's opinion as to the illegality of the society is only the echo of an opinion expressed to my coadjutor, Mr. Montgomery Martin, some time ago, in Downing-street. But upon the same principle the Highland Society should be put down, the Bucks Agricultural Society should be put down, the Royal Society should be put down, and every other society that has for its objects the advancement of the intelligence, the industry, and the happiness of the nation.

Though a small number (17 to 10) of the Bucks Agricultural Society has negatived the resolution, which was, I believe, carried unanimously by the deputies from the other counties who met at Aylesbury, that it is advisable that a Head Society, as a centre of communication for the Local Societies, be formed in London, (whilst at the same time Lord Chandos, Sir William Young, and Messrs. Grenville Pigott, T. S. Harcourt, Medley, Rolfe, and Brickwell, were appointed a Deputation to take part in the proceedings on the 15th Dec.) still I have no fear that the Central Society will be formed, and formed upon principles, and for objects, which no honest man will hesitate to support. Too long has it been the policy of all classes of society to act in opposition to the advice of one who has devoted a long and useful life to speed the plough, viz., "that Agriculture is the GREAT ART which every government ought to protect, every proprietor of land to practise, and every inquirer into nature to improve." In seeking that this great art, by which the nation is nourished and sustained, shall receive the protection of the government, shall be practised by every proprietor of land, and improved by every inquirer into nature, the promoters of a National Agricultural Society propose I hope nothing for which they may be ashamed to throw themselves upon the kindly feeling, and the good sense of their countrymen.

In addition to the Societies approving of the formation of the Central Society, enumerated in your paper of last week, letters have been received from the Bridlington Association, stating that, at a meeting of that

body, held on the 14th instant, very numerously attended, it was unanimously resolved to support and co-operate with the Central Society; also from the Thirsk Association mentioning that at a general meeting held on the 16th, it was resolved that the Central Society will be of the greatest utility to the agricultural interest, and that it do receive their cordial support. Communications approving of the same object have been received from East-Kent, Mid-Kent, Brigg, Ashby de la Zouch, Sudbury, &c. Various noble Lords, Members of the House of Commons, and landed proprietors, have also during the last week sent in their adhesion to the Society, and letters to the same effect are daily being received.

With many thanks for the able assistance which you have rendered to the cause in which we are embarked, I remain, Sir, faithfully yours,  
R. BROWN.  
448, West-Strand.

## PETITIONS TO BOTH HOUSES OF PARLIAMENT.

Prepared at a meeting of the Committee of the York Agricultural Association on Thursday, Nov. 14, on the subject of agricultural distress, were laid for signature in the outer Merchants' Hall. The following is a copy of the petition to the House of Commons, which is similar to the petition to the other branch of the Legislature.

*To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled.*

The humble petition of the owners and occupiers of land, and persons interested in the prosperity of agriculture, residing in the county of York.

Sheweth,

That your petitioners belong to the most numerous, and most peaceful class of his Majesty's subjects.

That their patience has been unexampled, amid distress unparalleled.

That no effectual steps have hitherto been taken by Parliament to ascertain the real nature and causes of their distress, now of near 20 years continuance, occasionally suspended by vicissitudes of seasons and visitations of Providence.

That they lament to think, that during this long period, the ear of Government, on matters connected with home industry, has been lent to political adventurers and theorists, and the monied interest, rather than to those who have a solid and permanent interest in the productive welfare of the country.

That your petitioners are at a loss to conceive why, in an age of improvement, not only the grievances of the most important interest in the empire; but the very worst of grievances, viz.—penury and ruin, should alone go unredressed.

That the depression has at length arrived to a pitch, which, under the burden of our fictitious debts and engagements, can no longer be borne. A considerable extent of the arable soils in England at the present prices can pay neither their expenses, nor rent.

That it is impossible, that evils of the magnitude under which your petitioners suffer, can have arisen without an adequate cause; that cause, uninquied into, has, indeed, been sometimes attributed to the operations of bountiful nature, for the purposes only, according to the views of your petitioners, of preventing the exposure of the truth; it is in vain attempting to remove an effect without previously ascertaining the cause.

Your petitioners, therefore, earnestly entreat your Honourable House, in no spirit of party, but in the spirit of consulting the country's best and most lasting interests, and in strict justice to British agriculture, "the first of all its concerns," at once to institute a bold and unflinching inquiry into the causes of agricultural distress, with a view to their immediate removal.

And your petitioners will ever pray, &c.

### THE FAILURE OF THE TURNIP CROP.

Sir,—The general failure of the turnip crop, through the southern and midland counties, as well as partially in the East-Riding, has produced considerable anxiety; and it is attributed to a black caterpillar, in the former places, and to the excessive drought of the months of July and August, in the latter. In the North-Riding, the principal crops have looked pretty well until the commencement of the present month, when they changed their beautiful green, and healthy appearance, for a diseased yellowness, and dying of the primary leaves. Being informed by a respectable turnip-grower, that the turnips were much infested with the maggot-grub, I examined the bulbs of some turnips in a field where they looked remarkably healthy, and to my surprise, I found that the fibres attached to the bulb, were thickened to nearly the size of a finger, and as many as nine were thus unhealthily enlarged, at a single root. This disease is, I believe, the same as is designated in some districts, by the somewhat uncouth appellation, of "fingers and toes;" so that it will appear that the North-Riding has not altogether escaped the effects of the season. Knowing this unnatural appearance to be the result of some diseased action, I carefully preserved some of the tubers, and dissected them; but examined several, before I could discover any thing but an apparently sound enlargement of the fibre, and no maggot-grub nor any traces of such insect ever being there, could I discover. I, therefore, adopted a different plan; I broke some of the tubers which were somewhat approaching to putrefaction, in two, and found some minute white worms, with black heads, about the thickness of a fine needle, and very much resembling the young of the common earth-worm, in its first state. In order to ascertain whether they were, or not, I immersed one in salt-water, knowing that the touch of salt will destroy a worm in a few minutes; but it seemed only to have acquired new life by this application, which did not otherwise affect it. I had my suspicions that these were the young of the wire-worm; and by taking up a root with the earth by which it was surrounded, I found several wire-worms attached to the unhealthy parts, and the defects they left, after eating the plant, were precisely similar to those left by the worms in question, only much larger in extent. There is a grub which attacks the bulb itself, and raises small tubercles upon those parts of it which are exposed to the air, but which never seriously affects the health of the plants. In order to be certain that the two kinds of grub were different, (although their appearance at once decided that,) I put both to the test of quick-lime;—it destroyed this maggot-grub in five minutes, while it produced no sensible impression upon the wire-worm in twenty. I now considered I had gained a point; all my doubts that it was the larvæ of the wire-worm were dissipated, and then the enlargement of the fibres are easily accounted for. The wire-worm attacks them, and deposits its eggs under the cutis of the fibre, which causes an extravasation of the juices, and something analogous to a fungus deposit, takes place, which of course arrests the growth of the plant, and takes for its maintenance the juices, which otherwise would have supplied the plant. It may be asked, what practical information do my examinations afford? and I answer, they have elucidated the cause of a disease, which has hitherto been unexplained, at least, so far as

my agricultural reading extends; it has therefore, added to our knowledge, and left the way open to other experimentalists, to devise a cure. But it has done more; it has proved that salt will not destroy the grub;—lime will not; and by subsequent trials, I find that soot, and sulphur, are alike ineffectual. By way of conclusion I may say this disease in its most virulent form, will grow the turnip out of the soil, when it will separate itself from the tubers, and die away. There are (from my own observation) two kinds of wire-worms, one yellow, and slightly resembling a caterpillar, but perfectly smooth; the other quite straight, and its colour white. These worms are remarkably agile, and very tenacious of life. Those beautiful birds, the Water-Wagtails, are great destroyers of them, as well as Sparrows, but the former are much more expert at the business, being running birds, and much quicker in their motions, than the latter, which can only hop. I once witnessed an instance of sagacity in these birds, which will be interesting to the naturalist. The Wagtails were following the plough very close, and catching the wire-worms, with which, as soon as they had got their little bills full, they flew away. The sparrows watched them, and as they flew, darted at them. The Wagtails in their fright dropped the worms, and the Sparrows instead of pursuing the birds, flew down to the ground and secured the worms.—Yours, &c.,

Thorpfield, Oct. 26, 1835.

M. M. M.

### QUANTITY OF SEED.

(From Sinclair.)

**OATS.**—The quantity of seed for a crop of oats, is generally from four to five Winchester bushels per statute acre; though in Devonshire even eight. The amount must depend upon the richness of the soil, and the variety that is cultivated. The potatoe-oats not having any tail-oat, like the ordinary sorts, and tillering well, require much less seed, in point of measure, than the other sorts; and may be safely trusted, when the land is equally well cultivated, with as small a quantity of seed as barley, namely, from two-and-a-half to four bushels. It is, however, to be observed, that as oats in general are cultivated on weak and inferior soils, and in cold climates, the quantity of seed should be increased in proportion as these circumstances operate.

**BEANS.**—In the culture of beans, different quantities of seed are used in England and Scotland. In the former, three bushels per acre are considered to be a sufficient quantity, if drilled, and four when broad cast; but in Scotland, four bushels are required when the beans are sown in drills, and five bushels when sown broad-cast. Perhaps this may be partly owing to the difference of climate, beans being sown early, and exposed to much severity of weather. Besides, it is maintained in Scotland, that unless the rows of beans close effectually over the land, weeds will unavoidably grow, and flourish, after the cleansing process is finished. The land will thence become foul, so as to defeat the very object of the drill husbandry; the crop will be proportionably injured, by being robbed of its nourishment, and the soil will be left in a wretched condition, compared to that in which it ought to have been placed.

**PEAS.**—When drilled four bushels of seed are considered to be sufficient, but when sown broad-



cast, from four to five bushels are supposed to be necessary. Much, however, must depend upon the size of the pea, the luxuriance of its growth, and the peculiar qualities of the variety sown, for three bushels of the grey pea, as seed, are found equal to four of the white.

**CLOVER and RYE-GRASS.**—It is not advisable to sow at the same time, a mixture of light and heavy seeds as clover, and rye-grass. It is impossible that it can be done correctly; and it is much more prudent, to go once over the ground, with each sort of seed. The usual quantity per statute acre, is from ten to twelve pounds of red clover seed, and about a-half or two-thirds of a bushel of clean and well dressed rye-grass seed. If the rye-grass is cut young, it is not injurious to the soil.

On the whole, seed ought not to be distributed with too rigid economy, as a full crop of any grain whatever, is cheaply purchased, by giving a sufficiency of seed; while a scanty crop, besides being in itself unprofitable, is sure to poison the land, by facilitating the growth of weeds. There is a happy medium, however, in this, as well as every thing else. For a crop may not succeed, when the plants are too numerous in the ground, any more than when they are too few. Their over luxuriance may likewise be prejudicial, by retarding the ripening, and hazarding the safety of the crop.

## EFFECTUAL METHOD OF DESTROYING THE FLY IN TURNIPS.

TO THE EDITOR.

In May or June, 1834, a letter signed "Agricola," was copied by the *Chelmsford Chronicle* from the *Entomological Magazine*, detailing a variety of experiments in proof of the eggs of the turnip fly being deposited on the seed. Of this fact, any person may satisfy himself, by using a strong magnifying glass; a microscope will, of course, shew them better. In order to destroy the vitality of the eggs, the author of the letter steeped the seed for twelve hours in salt and water, but this long period destroyed the seed; he then tried three hours steeping, and was successful in saving his crop of turnips, but the insect still appeared. In a report of the proceedings of the Hunkford Agricultural dinner, this discovery and remedy is attributed to Mr. Fulcher: surely he must have been the author of the letter to the *Entomological Magazine*. I have carefully repeated the experiments of Agricola upon every description of turnip seed, some of which did well with salt, but others were more or less injured. I then tried lime, lime and salt mixed, and arsenic, but with no better success, the insect still appearing, and many of the plants sickly and withering. My attention was then directed to find a substitute for the salt, which should not be injurious to the seed. Knowing that alkalis were generally beneficial to vegetation, I made a solution of common washing soda and water, in which the seed was steeped but a short time. The young plants shot up with surprising rapidity, and were soon out of harm's way; the insect was still there, but it was powerless. These facts were communicated to Messrs. Tetterells, of Plum Hall, Colchester, who have used soda for several large fields on their three farms, on the Mersea road, with unvarying success; their crop of turnips is unrivalled in Essex. These gentlemen are known to be practical farmers, and will be ready to show their fields to any person who may be desirous of "seeing

with their own eyes." It may be asked how the young plant escapes injury whilst the insect is upon it? By close observations of many trials, I am of opinion that the seed leaf is impregnated with the soda, giving it an unsavory relish to the insect, as I observed hundreds of them tasting the leaves and soon jumping to others, where meeting with nothing more palatable, continue the search for more agreeable food for hours. I have watched them, and not seen a single plant destroyed, whilst every one has been more or less tasted. If it be objected that wheat or other grain steeped in arsenic or lime does not convey either into the stalk or ear, it must be remembered that the turnip fly, (or beetle more properly,) only attacks the *seed leaf*, which is, in fact, the root of the young plant, supplying it with nourishment until the rootlets strike into the earth, then the true leaf appears and the plant is safe. Messrs. Tetterell dissolved four ounces of soda in ten quarts of water—this was sufficient for twelve quarts of seed, which absorbs a great portion of the solution in about three hours; it was then put into a bag and allowed to drain twelve hours, at the expiration of that time every seed had germinated: the sowing followed immediately. I have only to add, that whatever merit there may be in this discovery is due to "Agricola." I am Sir, your obedient servant

Abberton.

INQUIRER.

## WEST SOMERSET AND TAUNTON AGRICULTURAL ASSOCIATION.—CATTLE SHOW.

The Annual Exhibition of Live Stock took place on Friday, the 27th of November, in the Castle Green Yard, which was attended by a great number of the Gentry and Yeomen of the neighbourhood.

### THE DINNER.

In consequence of the room at Sweet's Hotel, not being spacious enough to contain the number of persons intending to dine (so rapidly has this association increased in strength and importance) Miss Sweet, anxious that all should be accommodated, hired the Assembly Room, where upwards of 130 sat down to a very sumptuous dinner provided by her for the occasion. B. ESCOTT, Esq., in the chair, supported on his right by Sir T. B. Lethbridge, Bart., and on his left, by F. Popham, Esq. Among the company, we noticed E. B. Portman, Esq., Dr. Blake, E. A. Sanford, Esq., M.P., Rev. T. S. Escott, V. Reynolds, J. Snowden, Esqs., T. Gould, Esq.,—Gordon, Esq., Robert Mattock, Esq., Rev. W. P. Thomas, Col. Cooper, A. Crosse, Esq., Revds. W. Wood, W. Fenwick, and W. Chilcott, Capt. Maher, —Byrns, Esq., G. Bucknell, Esq., V. Laugworthy, B. Lamont, Esqs.—Perry, Esq., J. Bunter, Esq., H. J. Leigh, Esq., and a large number of very influential agriculturists. Mr. T. D. Coles filled the Vice-President's chair.

After the usual loyal toasts—the "The Navy and Army," "The Bishop and Clergy," &c., &c., the healths of several gentlemen present were drank, and the following gentlemen addressed the meeting:—Colonel Cooper, the Rev. T. S. Escott, the Rev. W. P. Thomas, the Rev. W. F. Chilcott, Dr. Blake, E. A. Sanford, Esq., Sir T. B. Lethbridge, Mr. Portman, Mr. Coles, Mr. Popham, Mr. Hamcock, the Rev. W. Wood, Mr. Somers, Mr. Crosse, and Mr. H. J. Leigh. As the speeches generally bore upon the same subject, which was more fully discussed at the meeting next day, and we omit them for the purpose of giving a more full report of the proceedings which then took place.

The following premiums were then awarded.

Premium given by E. A. Sanford, Esq., M.P., for the best ox, owner's own breed, Mr. John Bult, Dodhill.—Premium given by C. J. K. Tynne, Esq., M.P., for the best cow and offspring, Rev. W. Wood,

Staplegrave.—Society's premium best fat ox, Mr. H. Brown, of Stawel.—Best breeding cow, Mr. C. Gibbs, Bishop's Lydeard.—Best fat heifer, Mr. E. Bond, of Oak.—Society's premium, bull, Mr. J. Bond, jun.—Heifers under 22 months, Mr. J. Bond, Bishop's Lydeard.—Fat wether sheep, Mr. T. Bond, Bishop's Lydeard.—Breeding ewes, Mr. I. D. Coles, Pyrland.—Boars, Mr. Colman, Hoveland.—Sows, Rev. W. Wood, Staplegrave.

The premiums were awarded to labourers, &c., in Agriculture, as follow :—

The premium of two sovereigns to William Vinsom, of Brompton Ralph, for having supported the largest family by his own industry.

The premium of one sovereign to John Stone, of Yarcombe, for having supported the largest family with the least parochial aid.

The premium of one sovereign to William Gallop, of Pitminster, having worked the longest time, viz., 45 years, on a farm occupied by a subscriber.

The premium of one sovereign to John Chidgey, servant to Mr. Edward Bond, having lived with him nearly eight years, with a good character.

Sheep-shearing Premiums, adjudged, May 27th, 1835, presented Friday, 27th Nov., 1835.

- 1st Premium—3 sovs. to John Williams, of Creech.
- 2nd do ..... 2 do. to Wm. Chester, of Stogumber.
- 3rd do ..... 1 do. to George Fudge, of Kingston.
- 4th do ..... ½ do. to Henry Harper, of Cheddon.

The Premiums for Rams were awarded,

- 1st Premium—3 sovs. to Mr. Hancock, of Hales.
- 2nd do ..... 2 do ..... do ..... ditto ..
- 3rd do ..... 1 do. to Mr. J. D. Coles, of Pyrland.

Ploughing Match, 21st Oct., 1835.

- 1st Premium—2 sovs. hat and favour, J. Anning.
- 2nd do ..... 2 do. to Thomas Birch.
- 3rd do ..... 1½ do. to James Forward.
- 4th do ..... 1 do. to Herbert Harper.

5th.—A premium of two sovereigns to James Fry, being the best manager in the class which had won the highest prize at former ploughing matches.

**AGRICULTURAL DISTRESS. LARGE MEETING OF LANDHOLDERS AND FARMERS IN SOMERSETSHIRE.**

An unusually large meeting of landholders and agriculturalists, was held at Taunton, on Saturday, Nov. 28th, for the purpose of deliberating on the means of relieving the prevailing distress in agricultural life.

At twelve o'clock it was found that the number of persons present required a much larger space for the meeting than could be afforded at Sweet's Hotel, where they had before met, and again intended to assemble. Permission having been obtained for using the Assize Hall for the purpose, the *Nisi Prius* Court was in a few minutes filled in every part, presenting a body of between six and seven hundred persons, many of whom consisted of the most opulent landholders and farmers of the county.

JOHN GOULD, Esq., of Amberl House, was requested to take the chair, and he very kindly consented to undertake its duties. After a few appropriate remarks on the object of the meeting, and the necessity of permitting every gentleman a fair and uninterrupted hearing,

A. Crosse, Esq., rose to propose certain resolutions which he had very unexpectedly been called upon to submit to the meeting. After stating that the present state of the markets defied all chance of remunerating the grower, the expense of producing an acre of wheat being at least 5*l.* (Mr. J. Hancock, begged to correct the speaker, by observing he was prepared to show it could not be cultivated for less than 6*l.*) and showing that on the best lands the average produce afterwards

would produce very trifling, if any rent whatever; the worthy gentleman enforced the objects of the meeting, submitting his resolutions. In most of them he cordially concurred, but in those which adverted to the policy of enlarging our circulating medium, by an issue of government paper, he candidly confessed his misgivings of opinion. Mr. Crosse in the course of a long and sensible address, adverted to the exertions of Sir T. Lethbridge, in ameliorating the condition of the farming interests, and felt happy in the opportunity of expressing his opinion, that the hon. baronet never advanced a sentiment to the truth of which his feelings did not conscientiously respond, or ever contemplated an action of the duty and honour of which he did not previously feel perfectly satisfied, (*Cheers and applauses.*) After considerable expatiation on the object of the meeting, Mr. Crosse proposed the following resolutions.

Mr. Crosse then submitted the resolutions, which will be found at the end of this report, with the addition of a clause advocating a revision of the currency, but which the meeting rejected on Sir T. Lethbridge's amendment.

Mr. J. HANCOCK, in seconding the resolution, observed that the present low price of the produce of lands was in such a state as to bring ruin and loss on all occupiers, as well as on many of those who farm their own estates. He would read to the meeting a statement which related to land of a superior quality, that is the average of a mixed farm of arable, meadow, and pasture, of the best farms in the Vale of Taunton Dean. The rents of these now averaged about forty shillings per acre, from which it will be perceived, that the lands of the best quality, after paying rates, taxes, manure, labour, blacksmiths, carpenters, and all expenses relating to the outgoings of a farm, leave but a very small rental; consequently farms of a second rate quality do not pay their expenses, and those farms of an inferior quality are at present worth nothing. If there be any error in this statement, he considered that it was on the favourable side of the landholders, having made no allowance for bad seasons, for harvest, and failure of other crops, which is particularly exemplified in that of the failure of the turnip crop this year (on which his loss this season was at least 300*l.*) A great portion of the land in the Vale of Taunton Dean is very much injured by the high hedges, and the large growth of timber trees in those hedges, preventing a free circulation of air, harbouring birds, and laying the corn very much from wind and rain previous to the harvest near the hedges, which occasions at least two bushels per acre deficiency on the average. In illustration of his statement, he had presumed land to be in a fair state of cultivation, and to be kept so, which is the paramount duty of all landlords, so that their farms are kept by manure and good management in a fair state of husbandry; and to take a just, fair, and moderate rent, according to the very depressed state of agriculture (that is the very low price of farming produce.)—The expense of the five following crops taken to commence at Michaelmas, in a fair state of cultivation, on one acre, yearly :—

The expense of an acre of wheat, on the average, of the best farms.

	£	s.	d.
Ploughing headlands, furrowing up, and drawing out, per acre .....	0	6	0
Lime and carriage 15 hogsheads per acre, imperial measure, at 2s 6d per hhd. ....	1	17	6
Ploughing, dragging, rolling, harrowing in the seed per acre, sometimes ley wheat and sometimes fallow .....	1	0	0
One year's parish rates .....	0	6	0
Seed wheat, 2½ bushels per acre, at 5s per b. ....	0	12	6
Tithes in general .....	0	12	6
Weeding, per acre .....	0	1	0
Reaping, harvesting, and thatching .....	0	12	6
Thrashing, winnowing, and carriage to market .....	0	16	0
Interest of money for one year .....	0	7	0

Without rent.....£6 11 0

2nd.—Crop of turnips out of wheat erish, £ s. d.

From four to five ploughings, at 6s 6d per acre	1	8	0
Dragging, harrowing, and rolling, after every ploughing	0	10	6
Throwing up the dung to heaps in the court- ledges, and turning per acre	0	1	0
Drawing out the dung (10 loads per acre), at 1s 6d per load	0	15	0
Spreading, per acre	0	2	0
Seed and sowing	0	2	0
Hoeing and weeding, per acre	0	5	0
Parish rates	0	6	0
Tithes	0	5	0
Wear of gates, hurdles, fences, &c.	0	3	0
Interest per year	0	7	0
	£4	4	6

3rd.—Barley crop.

Two ploughings, at 6s 6d per acre	0	13	0
Dragging, harrowing, rolling, and healing the seed after each ploughing	0	8	0
Seed barley, 4 bushels per acre, at 4s per b.	0	16	0
Sowing barley and grass seed, per acre	0	0	6
Grass seed, per acre	0	9	0
Parish rates	0	6	0
Weeding and repairing fences	0	2	0
Mowing, harvesting, and thatching	0	10	0
Tithes at 3s bushels per acre	0	11	0
Thrashing, winnowing, and carriage to market	0	8	0
Interest, per year	0	7	0
	£4	10	6

4th.—Crop of young grass.

Parish rates	0	6	0
Weeding and fencing	0	1	0
Tithes	0	5	0
Interest, per year	0	7	0
	£0	19	0

5th.—Second grass.

Parish rates	0	6	0
Tithes	0	2	0
Weeding and fencing	0	1	0
Interest, per year	9	7	0
	£0	16	0

Outgoings brought forward:—	£ s. d.	Incomings or produce:—	£ s. d.
1st. Wheat.....	6 11 0	By 25 bush. wheat	
2nd. Turnips ....	4 4 6	per acre at 5s..	6 5 0
3rd. Barley ....	4 10 0	— 1 acre of tur-	
4th. Young grass.	0 19 0	nips, at 3l ....	3 0 0
5th. Second ditto.	0 16 0	— 35 bushels bar-	
		ley, at 3s 6d..	6 2 6
		— 1 acre young	
		grass .....	3 10 0
		— 1 ditto second	
		grass .....	2 0 0
Without rent	£17 1 0		£20 17 6

So that to balance the outgoings, there remains about 15s per acre rent.

Mr. Hancock being an extensive and experienced farmer, and of great respectability, the above exposition of facts was listened to with great interest by the meeting.

F. FALKNER, Esq. addressed the meeting to the following effect:—Mr. Chairman, I cannot but express my great satisfaction at seeing so very numerous and respectable a meeting of the landed proprietors and farmers of West Somerset, assembled for the purpose of expressing their sense of the very severe distress which presses upon the agricultural interest; and with the determined purpose of seeking for some efficient relief. I do not hesitate to say, sir, that a meeting upon a more important subject never took place within these

walls; for if properly considered, it well be found to involve not only the welfare of the farmer, but of all the other classes of the community. As the produce of the land is the source of all other property, agriculture cannot long remain in a state of great depression without deeply affecting all other interests. It is painful to dwell upon the disastrous consequences that have ensued from the distress which has of late years fallen upon the agricultural portion of society. Thousands have been utterly ruined, and have sunk into the grave the victims of disappointment and despair; whilst vast numbers have been degraded to hopeless poverty, or driven into exile. Many causes have been assigned for the great changes in prices which have produced these calamitous effects: but there is but one principal cause, the alteration in currency on the quantity of circulating medium by the return to cash payments at an old standard of value; by which money obligations of every kind were doubled in their pressure upon the people. Such was the want of foresight on the part of parliament when that measure was carried into effect, that it was affirmed by the advocates for the measure, that prices would but be very inconsiderably affected by it. And their assertions were relied upon in preference to those of others who maintained that it would produce the ruinous consequences which we are now experiencing. It is truly lamentable that a matter of such immense importance to the welfare of the country as the monetary system should be so little understood by those who undertake to regulate it, and should be made the subject of such rash and ill-considered experiments. It is most evident that no very profound thought was bestowed upon the subject, by those principally concerned in passing that memorable act called "Peel's bill." For, when it was declared that every one of their 800 millions of pounds which constituted the public debt, should be represented by a quarter of an ounce of gold, it was in fact determined that the pound should be equal to five bushels of wheat, which that quantity of gold will buy upon the Continent on the average of years; and that the prices of all other commodities should be in proportion. This must be evident to every man who is acquainted with mercantile transactions, and takes comprehensive views of the subject. No corn laws or other restrictions on our foreign trade, will bar this consequence on our home prices; though they may for awhile, as they have done, delay the full and final effect. Prices, therefore, must subside to the level of those of foreign nations generally; and when that shall have taken place, how is our present enormous burthen of taxes to be supported? What rent can be paid for land when wheat shall be 4s per bushel, and other produce in proportion? If such be the effect of our present money system, and such I maintain it is, I am warranted in saying that there is no hope for the farmer. Two years ago a committee of the House of Commons was appointed to inquire into the distress of agriculture, for the purpose, I suppose, of suggesting some mode of relief, but those who composed that committee were strictly prohibited by certain influential persons from taking the subject of the currency into their consideration; and every attempt to do so was promptly suppressed. Why, sir, to what can we compare such conduct as this, but to that of a physician, who, having called in others to consult upon the case of a patient in extremity, insists that they shall pay no attention to the pulsations of the heart, the action of the liver, the condition of the lungs, or the state of the digestive organs; but with these restrictions requests them to enter upon the consideration of the unhappy patient's disorder. I feel very confident that the state of the currency is the seal of the present disorder of the farmer's affairs, and that none of the topical remedies which have been suggested will give him any efficient relief. At least nothing less than a removal of all the burthens which now press directly or indirectly upon him. I shall conclude, gentlemen, by pressing upon you the necessity of immediately applying by petition to parliament for a prompt and unrestricted inquiry into the cause of your distress, and the adoption of some efficient relief from a state of things, which is destructive to your property, and to the welfare and prosperity

of the country. I beg to return my best thanks for the kind indulgence you have shown me. (*Great applause.*)

The CHAIRMAN having put the resolutions *seriatim*, the four first were unanimously agreed to. On putting the 5th, viz.—“That it is the opinion of the meeting, that the distress which has of late years been so severely felt, not only by the farmers, but by all the other industrious classes of the community, has not been the effect of unavoidable circumstances, nor of an ordinary course of events, but we believe is attributable to the operation of an act of parliament upon the currency of the country, which by prematurely enforcing a return to cash payments at an old standard of value, and thereby diminishing the quantity of the circulating medium, has increased two-fold the previously enormous weight of the public burthens.”

Sir T. B. LETHBRIDGE, Bart. rose amidst very considerable applause, and observed, that although the preceding resolutions in which he had concurred might be considered to have been embodied in more suasive terms, yet they had his approbation, but the one now to be considered contained principles and opinions not calculated to assist the meeting in attaining its object with the legislature. There was a fallacy in the resolution and he could not sanction it. He would endeavour to show in what the error consisted, though it was somewhat difficult to cope in argument with a gentleman of so much talent and research as had been displayed by him in support of the views which he advocated. He would, however, endeavour to show what he thought was the right course to be pursued. At the last meeting, he was taken in some degree by surprise, but he was better prepared now to sustain the opinions which he then entertained on the subject, and quite ready to encounter the chastisement which those who differed from him might think fit to inflict. One learned gentleman had attributed to him, by a letter in *The Taunton Courier*, signed “J. B. Bernard,” and not to him only, but to the vast majority who felt and believed with him, all manner of strange things, and advised the yeomanry of this part of the country not to place any credit on his advice. He was, no doubt, a clever and learned doctor, and had written many books about all manner of things, and like another learned doctor of times gone by, who after writing an elaborate work, entitled “*De omnibus rebus*,” wrote another book, of the same description, by way of supplement, entitled “*De quibusdam aliis*.” The same learned gentleman has, in *The Taunton Courier*, expressed himself among other points very wildly on the subject of the present meeting. By the bye, *The Taunton Courier* has deserved the thanks of all parties, for it has properly published opinions on all sides, which enables the truth to be come at, for it is discussion by which that object can be always best attained. He entertains, it seemed, a great horror of the House of Commons and the monied mongers, as he calls them, who he affirmed preponderated in that assembly. (*Cheers and laughter.*) He deprecated all trust on that house. He was even in agony and quite rampant at the thought of petitioning the legislature. “Approach it not,” he says, “they are all a set of very sad fellows, and you must have no confidence whatever in them.” (*Laughter and cheers.*) Nevertheless, gentlemen, those thus so unceremoniously spoken of are the very gentlemen whom you and the electors of a reformed parliament, have thought fit to entrust with the representation of your rights and interests, and the liberties of your country, and to confide in them because they have been elected by the people. (*Applause.*) The learned gentleman has no right to find fault with me for putting forth my opinions in the plain and unvarnished way I have done. The question is whether we shall address the legislature in those terms which are not only likely, but are sure of commanding attention, or whether we shall compromise our claims to the respect of Parliament, by prescribing a chimerical source of relief. (*Hear, hear.*) My excellent neighbour, Mr. Crosse, whose talents and honourable feelings must always command respect, and whose very clever address they had just heard, had, notwithstanding his great ability, overlooked the fact of his bringing forward resolutions, the main feature of

which he did not approve, and therefore all his speech, forcible as it was, must be blotted from your memories. Another worthy neighbour, whom he should feel as proud to call his friend as any individual whom he knew, Mr. Hancock, of Halse, had told them, perhaps very correctly, about the expense of cultivating the land for wheat, and no one was a better judge of farming expenses in general, but with great discretion, had not said one word about the currency; and why? because he had the good sense to avoid saying anything about a subject which he did not understand. Another gentleman, who followed Mr. Hancock, had entered largely into the question of the currency, or the monetary system, as it was called. But this is a very nice subject—and it was to the fallacies contained in the speech of this gentleman, that he (Sir Thomas) wished more particularly to reply to, because they were specious—they were captivating; and from the talent with which they were urged, were likely to mislead this meeting, and to induce them to carry to the foot of the Legislature opinions neither founded in fact nor likely to be received with any favour, and might prevent our receiving any relief, for, if we voted impossibilities, we must expect disappointment. He (Sir Thomas) recollected well when wheat was fifteen shillings and a guinea the bushel, and those were thought fine times; the farmers were all gentlemen; they took their turtle soup,—(*cheers and laughter.*) and not unfrequently their Madeira; he did not blame them for it, they had a right to indulge themselves. They thought they could afford it; and I would ride in a coach and six if my means were adequate to the expense; but before I do so, I must look to my pocket, and see if I can honestly afford myself this luxury. Mr. Pitt was the great financier of that day, but he left us a bill to pay, and we are now contending who shall pay this old bill. (*Cheers and laughter.*) It must be paid, gentlemen, by somebody; that, no one,—no English heart, will deny. The Bank restriction which enabled Mr. Pitt to raise the wind to carry on his gigantic wars, was no doubt a great cause of the mischief which, ever since, has so severely operated on the agricultural classes, but by no means the only cause; and we now propose going to parliament to ask them to revise the act of 1819, Sir R. Peel's Bill, which was to remedy the effect of 1797, and which has been the means of driving away from this country thousands who have expatriated themselves, and ruining very many families, and when this evil of 1819 has nearly, if not entirely reached its utmost possible extent, and done its worst. Thus a measure which took place so far back as 1819, is now put forward as the only cause at this day of all our suffering. I am (said Sir Thomas) quite astonished at this. You have a debt to cope with, and a duty to perform in paying it which you cannot get rid of, but in the way which belongs to every honest Englishman. (*Cheers.*) The worst part of the mischief is past; like a man in his grave, its course is run; it is powerless of further evil; but that which it has cast upon us must be borne. You have many of you drank the last dregs of the cup: and would you now, at the moment when you have reached the acme of your misfortune, call on the Legislature to return to a trumpety paper currency, which, while it lasted cheated every poor man who could not judge for himself? He remembered well an old servant of his father, who had saved sixty pounds by long and faithful service. This he had deposited for safety, as he thought, in one of those paper establishments, with which the depreciated currency had overstocked the country. All was lost; and many thousands, like him, had in the same way been robbed of their all. An interesting story had been told by Mr. Falkner, who had said that one heifer had sold that day in Taunton market for 6l. 6s. which, twenty years ago, would have fetched 13l. He (Sir Thomas) would himself very much like to get 13l. each for his heifers, but not in a depreciated currency, which would not mend his gains, for, according to the worthy gentleman's own shewing, the currency was now enhanced one half, consequently 6l. 6s. now in real gold, was nearly as much as 13l. in a paper currency, which was the grand remedy which he called upon parliament to apply to our difficulties, and which,

over and over again, he and all who argued with him tried to shew, was all that was wanted to remove them. He remembered, when in parliament, doing a thing which he was ashamed of, all his life afterwards. (*Cheers and laughter.*) He had agreed with a great majority of the House of Commons in voting that a 1*l.* note and one shilling were of the same value, the same thing as a guinea! Mr. Vansittart, the Chancellor of the Exchequer, told them it was, and they were blind enough to believe him, because generally speaking, it was so believed, and no question had then arisen as to the quantum. What (said Sir Thomas) could make me such a blockhead (*great laughter and cheering*) I cannot now imagine. Mr. Vansittart was a man of considerable talent; but if he were again Chancellor of the Exchequer, and I were a member of the House of Commons, I would rather see him hanged than follow him. (*Laughter and cheers.*) If I have a sovereign in my pocket now in 1835, I know its value here and everywhere else, the gold standard being the same nearly all the world over; but if I have a bit of paper in my pocket, I know not how to estimate its worth. And here, in a powerful appeal, the Hon. Bart. called on the meeting to take care what it did. The character of Englishmen stood high, all over the world, and we could not be too wary how we acted on the subject of the currency, lest we should impair that enviable estimation in which we were held for national virtue and moral integrity in every civilized country. Some say the evil which prevails lies with the monied interest, others with the commercial and manufacturing; but I advise you, as an old stager—(*cheers*)—not to be misled by fine speeches and dazzling tropes and metaphors, but to be governed by the dictates of an honest spirit, and of sound good sense. One would suppose by the the arguments of some persons that they thought wheat alone was to pay the whole of the interest of the national debt, and furnish the revenues of the state. Does wheat, at 37*s.* a quarter, do this? One of the main averments in the resolutions is grounded upon this fallacy. It seems as if put forward to dazzle and mislead. It says, because 100 years ago wheat sold at 38*s.* the qr., and about 20 years ago it sold for 83*s.* and now that it sells for 32*s.* per qr., therefore the currency has done all this. And further it leaves you to infer that you must therefore be totally unable to pay the interest of the national debt, which, one hundred years ago, it says, was 100 millions only; then, twenty years again, it was 600 millions; and now that it is 800 millions, I will ask, Gentlemen is the interest of the national debt paid by the sale of wheat? Are there no other means to raise it? The argument must mean this, or it means nothing. Surely, gentlemen, never was there so poor an attempt at deception—it looks dazzling in the eye—it lies in a nutshell. You know it does. Did you not ever hear of such things as the *customs*, and the *excise*, and the general taxes? And does not the monied man as well as the farmer, eat, drink, and lie down on a taxed bed? Indeed, they feel the taxes so much sometimes, that they cannot sleep for thinking of them. (*Cheers and laughter.*) Our revenue arises from these customs and excise, and general taxes, and therefore is it fair to put the taxation of the farmer so prominently forward as being the only distressed party in the country? Nevertheless, I do not say that you are not to go to the legislature and ask for such relief as it can afford. Parliament is composed of men of honour and property, and they will consider and deliberate to do what is right, and we are bound to use their credit for that inclination, for, as I have said before, they are elected by the people. (*Cheers.*) The alteration of the currency by repealing Peel's bill now, would give you no more relief than to any dealer in coffee, snuff, and tobacco. The hon. bart. said some of the means of relief rested with themselves, such as a more careful mode of expenditure, a lowering of rents to a fair degree—a different course of cropping. If wheat won't pay, try flax; he had known one hundred acres this last year grown, and the farmers had been well paid. [Here a farmer asked the hon. bart. where they were to get dung? and he received for answer, that if he would hire him (Sir Thomas) as his bailiff,

he would tell him where. This created a good laugh.] The hon. bart. then concluded by calling on the meeting to leave out all the resolutions after the fifth, and said, "if you do this, you will do a wise thing, and will not only ensure respectful attention with parliament, but will attract attention in other parts of England, to what has been done in West Somerset, and thus by simultaneous proceedings produce a more powerful effect; but if you persist in the delusion, of following the currency, as the only cause of your distress, and will not take my advice, I will not march through Coventry with you. (*Cheers and laughter.*) You must take your own course, and when you get to the foot of the legislature, your petitions will only create their mirth and not their sympathy. Gentlemen, I have, I trust, replied with some argument as well as declamation to those who have preceded me, and I conclude by saying, "petition Parliament by all means, for what they can do, but avoid to ask for follies which they cannot grant."

This address of the hon. bart. was received with great attention, and effected a complete alteration in the opinions of many, and was much cheered.

E. B. PORTMAN, Esq. was received with warm demonstrations of respect on seconding the amendment. The hon. gentleman observed, that it was the duty of every one who had especially directed his attention to the subject, to come forward at this juncture, and contribute to the common stock of information according to the best of his experience and ability. This was by no means a new subject with him. He had fought in parliament side by side with the hon. bart. who had just so ably addressed them, and though hopeless of success in contending for the interests of agriculture, had persisted night after night until they were at length left in a snug minority of nine. Mr. Portman adverted to the low price of produce, and to the question of the currency as applicable to the relief of the suffering farmers, and contended that the return to a paper currency ought to be deprecated by every honest man, and by no one more than the agriculturist himself. Mr. Portman argued that the fostering of the question in Parliament would necessarily lead to disastrous results. A demand for gold would instantly ensue—the landlords must look to their tenants for the supply; those who could obtain it must meet its enhanced value, and such as were in arrear must inevitably sink in their landlord's solicitude for his own preservation. Almost every interest except that of agriculture, has now recovered from the blow inflicted by the sudden return to cash payments, and it appeared, therefore to him, unwise to urge upon the attention of Parliament the consideration of a question, from which, not only no good could arise, but which if thus untimely pressed might invalidate the claims to respect, and defeat such means of relief as the legislature had it in their power to bestow. The hon. gentleman then went into some details as to the operation of the currency to show that the gold standard was the true criterion by which to adjust the value of every description of marketable goods, whether merchandize or farming stock, and having now come back to that standard, we might expect our markets for farming produce to be as steady as they were for the hundred years between 1697 and 1797, during which the average of wheat was from 5*s.* to 5*s.* 6*d.* the bushel. All are agreed in one point—the universal depression of produce, and that it is impossible for farmers to go on at present prices. Parliament cannot interfere between landlord and tenant. They must adjust their debtor and creditor accounts in that spirit of fairness and kindly feeling towards each other, which it is their mutual interest and bounden duty to adopt. Their interests are identified. The one cannot prosper while the other is in adversity, but can the man who industriously tills his farm with his best efforts, support himself and those associated with him in his rural labours? At the present prices, were the land his own, in very many instances he certainly could not. But if parliament can effect no good in providing a better market for your produce, it might relieve them in another way; the abundant harvests for the last few years, for which he sincerely thanked heaven, had, in

co-operation with large quantities of produce from Ireland, thrown down the markets; the Irish grower sent over his produce under advantages which we had a right to call upon the legislature to investigate and adjust, so as to place both the Irish and English grower on equal terms. In Ireland they were exempt from several burthens which weigh heavily on the British cultivator. The Irish are not compelled to support their poor; and though bound to pay their tithes, yet, unlike the English farmer, who honestly meets that claim, the Irish cultivator avoids it by every stratagem in his power. If the population of England require fifteen or seventeen millions of quarters of wheat to meet its annual consumption, how can it be wondered at, when Ireland by increasing annual supplies at last pours into our market her three millions of quarters in addition to the produce of harvests, each for four years being equal to our average consumption! (*Hear, hear.*) Then (said Mr. Portman) let us go to parliament and honestly tell them our grievances, which he was sure would command the liveliest sympathy and attention; and let us ask firmly and respectfully for a full and unrestricted inquiry into the cause of our complaints; let us urge them in terms which will come upon them with the efficacy of an order to set about an immediate examination into our case, and forthwith to apply a remedy; let us point out the peculiar disadvantage which oppress us, not with a view to throw impediments in the way of the prosperity of other interests—(*applause*)—but to show the unfairness of being obliged to contend with the same class of interests which, from local position, are exempted from burthens peculiarly weighing upon us. The hon. gentleman then adverted to the necessity of introducing poor laws into Ireland, and contrasted the better arrangements in respect of the poor in the north of England with those in the South; in the North, a pauper, and consequently a poor rate, were hardly known; we had mismanaged and demoralised our poor, and had no right to seek in general taxation for that relief which the examples elsewhere showed we might, by a better system, accomplish for ourselves. Our manufacturers at Manchester now wanted hands, and he had seen an advertisement for one hundred; he hoped, therefore, that our poor would find employment without emigrating. The hon. gentleman concluded an admirable address which repeatedly elicited applause, by giving his opinion that high prices must not be looked for, and recommended every tenant honestly to state his condition to the landlord, and by mutual concessions to adjust their interests with feelings of beneficency, and sympathy for each other on terms of well considered justice.

E. A. SANFORD, Esq. M.P. on rising, was greeted with very great applause. The honourable gentleman observed, that he considered they were much indebted to those gentlemen who had been the original promoters of the meeting, for having afforded the inhabitants of that neighbourhood an opportunity of calmly and openly discussing a question, which now appeared to engross a large portion of public attention. The views of those gentlemen had been laid before the meeting with great clearness and intelligence, but they had been most ably answered by the eloquent and lucid statements of his honourable friends, Sir T. Lethbridge and Mr. Portman, and he indulged a hope that the proceedings of that day would tend to remove any impression which might exist in that neighbourhood, that we were to expect relief, by a depreciation of our currency, from the distress now so grievously oppressing us, as Agriculturists. Opposed as he had been to the manner in which the change from a paper to a metallic circulation had been effected in 1819, and sensible of the misery which had been produced by the alteration, still, having now, it may be hoped, passed through the most severe portion of the trial, he could not consent again to place the country in so fearful a position, as might arise from a recurrence to depreciation; but would rather hope that parliament would use our past experience as a warning never again to allow the government to tamper with the currency. The nation, however, had a full right to demand of parliament an unrestricted and searching enquiry into the effects that

change had produced, and for such an inquiry he had always voted. The reason alleged for refusing it had ever been, that parliament ought not to allow the inquiry, unless it was prepared again to make an alteration, as unreasonable expectations might thereby be excited and very serious mischief created. The force of this argument he did not allow, and he was still prepared to support a full and entire inquiry. He had stated on the previous day that he feared it was not in the power of the legislature, to ensure them a better price for their wheat, and this opinion was founded on the fact, that the amount of duty now to be paid on the importation of foreign corn is greater than the price of the grain when sold in our markets; it must act therefore as a prohibition, and proves that the present low price could only proceed from a superabundant supply of our own growth, and although parliament was bound to protect them from undue foreign competition—with the competition of home-grown corn, it could not interfere. Still he considered however difficult, if not impossible it might be for parliament, by any enactment, to give them a more remunerating price for their wheat, yet it was bound to endeavour to lighten those burdens which peculiarly affect the agricultural interest, and he sincerely hoped another session would not be allowed to pass by without a commutation of tithes having been effected. He thought also that the Irish landlord, and the Irish farmer ought to be placed on an equality with their fellow countrymen in England, who ought not to be subject to burdens from which they were exempt: he therefore felt a hope that ere long a provision for the poor would be legalized in Ireland, and such a measure should have his constant support. (*Cheers.*) It was true that the labouring people of that fine country could be living in the most abject distress, surrounded by abundance which they had assisted in creating, but in which, from extreme poverty, they were unable to share, being compelled to export the produce of their labour to the already overstocked markets of England; for this grievance the agricultural population of this country had a right to ask of parliament a remedy. It was a source of great satisfaction to him to find that his opinions were entirely in unison with those of so large a portion of his constituents as had that day been assembled. Should it be their pleasure to address the legislature in accordance with the resolutions which had then been adopted, their petition should have his warmest support, and he knew he might also state for his hon. friend and colleague who was unhappily prevented from attending the meeting, that he also would most heartily support it. The hon. gent. then begged to take that opportunity, it being the first time since his return from abroad that he had met so large a number of his constituents, of expressing how deeply he felt the kindness which had been shewn him by re-electing him in his absence. It was not in the power of language to acknowledge in terms sufficiently expressive of his feelings how highly he valued the confidence they had reposed in him, and how greatly he felt the debt of gratitude increased by the generous and spontaneous manifestations made in his favour when he was in a distant country. Such kindness deserved, and would throughout his life excite in him the strongest desire to shew that he was not unworthy of it; and in whatever manner he could promote the interests of the electors of West Somerset, whether in or out of parliament, there was no personal sacrifice from which he should shrink in testifying the sincerity of his esteem for them, and gratitude for their conduct. (*Cheers and continued applause.*)

Sir T. LETHBRIDGE'S amendment having been put and carried unanimously, the meeting, after voting thanks to the chairman for the exemplary manner in which he had sustained his duties, separated at half-past four o'clock.

*Resolved,*

1st.—That as agriculture is a grand source of the wealth of nations, no country can be in a prosperous state whose agriculture continues for any length of time to bring loss and ruin upon those who are engaged in it.

2nd.—That this meeting therefore views with the utmost alarm and apprehension, the long continued dis-

press and increasing difficulties under which the agricultural interest of this country labours.

3rd.—That this continued depression which has already brought total ruin upon many thousand farmers, and has reduced almost to a state of insolvency a large portion of those who yet retain their stations, will, if remedial measures be not promptly adopted, effect such a further destruction of agricultural capital, as cannot fail to be productive of the most ruinous consequences to the landed interest.

4th.—That it becomes the imperative duty of all persons who are interested in the prosperity and welfare of the country, and particularly of those who are more immediately connected with the landed interest, to promote a prompt, diligent, and *unrestricted* enquiry into the cause of such extensive and increasing distress, and to urge, by every constitutional means, the redress of a grievance, which is gradually undermining the strength and resources of the nation; and is calculated to lead to the most serious crisis that this country has ever experienced.

5th.—That though successive governments have endeavoured, by a reduction of taxes, to diminish the excessive burthen unnecessarily thrown upon the people, the existing taxes demand for their payment more corn and other produce of the land than was required during the most expensive period of the late war; and this meeting believes that no reduction of taxes which can be effected under present circumstances, will afford any substantial relief; and that the only means of restoring the present, and securing the future prosperity of the country, will be found in the equitable distribution of those vastly increased local burthens which now press almost exclusively upon the land.

6th.—That these resolutions be printed and published, and that they be inserted in the principal journals of the West of England—that a subscription be entered into for the purpose of defraying the necessary expenses, and that the chairman be requested to carry these resolutions into execution.

7th.—That a petition, embodying the substance of these resolutions, be prepared; and that E. A. Sanford, Esq., be requested to present the same to the Commons House of Parliament.

1831. 1832. 1833. 1834. 1835.

	1831.	1832.	1833.	1834.	1835.
	qrs.	qrs.	qrs.	qrs.	qrs.
Bettely .....	...	...	...	...	2829
Maynard .....	740	827	941	1671	2828
Mann, James .....	...	1056	1332	1757	2750
Ball and Co .....	6184	5088	3516	4107	2687
Cox, John .....	2302	2979	2371	2146	2499
Hodgson .....	4206	3522	3870	2080	2414
Williamson .....	2259	2136	2010	2261	2264
Satchell .....	2503	3117	1906	2515	2147
Griffiths, P. late Whitmore .....	2146	1530	1063	1693	2120
Ing .....	1824	1598	1624	1743	2108
Hill and Rice .....	2910	1748	1974	1963	2012
Sherborne and Co .....	...	...	1152	1236	2031
Masterman .....	1701	803	1830	1816	1877
Nicholls and Co .....	3995	444	2726	2339	1461
Collyer, late Young, J. and B. ....	2105	1750	2078	1666	1432
Hume, G. ....	1081	955	975	1427	1256
Yerey and Co .....	...	...	814	1110	1208
Chapman, A. ....	522	435	435	462	1191
Collins, J. ....	...	953	889	1303	1105
Young, Charles .....	634	810	938	1078	1066
Kerry and Co .....	422	1107	1219	1044	1023
King, late E. Smith .....	1633	...	621	567	1016
Clarke, Charles .....	814	857	1006	1003	1006
Boreham and Co .....	1552	1083	999	1185	976
Blogg, William .....	603	107	436	915	968
Plummer .....	...	174	391	427	867
Buckley and Co .....	901	719	801	793	838
Manvell .....	752	713	924	873	834
Honeyhall .....	...	...	269	471	830
Clarke, S. ....	722	841	876	938	793
Mantel and Co .....	1157	840	914	850	757
Mann, Joel .....	871	788	730	745	735
Holt .....	1113	754	717	791	731
Jenner .....	...	202	355	529	734
Turner, John .....	674	584	640	677	709
Braithwaite .....	...	...	614	753	708
Clarke, Robert .....	545	719	780	747	706
Addison .....	756	590	596	653	671
Hood .....	...	...	571	488	671
Abbott, Edward .....	691	...	525	634	654
Harris, Robert .....	...	...	451	490	557
Thompson, George .....	598	604	641	589	553
Mattam .....	911	642	745	762	538
Turner, R. ....	98	128	218	341	531
Wicks .....	...	...	419	492	527
Collins, William .....	205	176	254	441	519
Wright .....	245	256	405	470	519
Hagan .....	...	...	331	...	506
Woodward .....	527	594	511	485	502
Lock .....	...	59	259	432	496
Holloway .....	...	...	492	469	486
Uford .....	...	...	...	203	472
Thurlby .....	184	234	303	230	469
Wells .....	...	...	...	220	468
Reynolds, late Aldridge .....	583	380	370	359	447
Higgs .....	904	537	464	511	447
Blogg, B. ....	603	681	594	752	424
West .....	...	...	179	255	406
Farquharson .....	382	...	883	657	403
Lloyd .....	479	468	448	411	384
Cowell, late Tizard and Co. ....	...	487	658	558	381
Clarke .....	...	...	402	431	357
Lindsey .....	386	332	321	328	319
Bury .....	...	...	...	549	286
Pugh .....	171	167	227	241	284
Brace .....	66	90	145	143	261
Griffiths, J. ....	...	35	142	179	253
Jones, Evan .....	585	463	337	375	248
Aainstock .....	20	229	239	240	241
Olley .....	230	206	218	226	239
Mseton .....	215	161	142	224	234
Jaekson .....	...	...	...	163	234
Prosser .....	66	99	133	217	217
Smith .....	...	...	...	214	209
Turner, R. and W. ....	911	816	716	525	200
Tubb .....	...	...	...	80	200
Cooper, William .....	241	...	443	...	199
Easton .....	141	241	245	237	199
Powditch .....	...	72	178	192	192
Craddock .....	...	...	...	62	173
Hacker .....	...	...	...	73	172
Turner, W. S. ....	230	206	197	188	172
Down .....	...	183	168	193	164
Stirling .....	...	...	...	319	162

THE QUANTITY OF MALT CONSUMED BY THE UNDERMENTIONED BREWERS OF LONDON AND VICINITY, from 10th October, 1831, to 10th October, 1835.

	1831.	1832.	1833.	1834.	1835.
	qrs.	qrs.	qrs.	qrs.	qrs.
BARCLAY and Co .....	97198	96612	93175	99974	106098
Hanbury and Co .....	50721	58512	58497	74982	78087
Whitbread and Co .....	49713	53541	50067	49105	55230
Reid and Co .....	53109	44420	40810	44210	49430
Combe and Co .....	34681	36948	36076	35438	36922
Calvert and Co .....	30525	32812	31433	31460	33263
Hoare and Co .....	24102	26821	25407	29796	31525
Elliott and Co .....	19444	20061	19899	25009	28728
Meux and Co .....	24339	22062	20718	26161	24376
Taylor and Co .....	21545	21735	21115	20835	23855
Charrington and Co .....	10531	9618	15617	18197	19213
Steward, Head, and Co. ....	8116	6872	...	...	...
Goding and Co .....	16307	14874	14279	15256	16312
Gardner .....	6666	5904	7471	11429	14699
Thorne .....	1445	2543	5136	8496	10913
Brieheno .....	5637	5732	7120	9950	9762
Courage and Donaldson .....	8116	7607	7516	8079	8790
Goding, Thomas .....	9987	8971	7630	8224	7618
Wood and Co .....	5469	5560	5547	7602	7320
Hazard and Co .....	...	6126	6203	7094	6544
M'Leod .....	1656	2947	4296	5179	5360
Fickell .....	9123	5331	5113	5291	5218
Harris, Thomas .....	4773	4780	4540	1940	4964
More .....	4048	3020	2911	3508	4187
Halford and Topham .....	2535	1040	1890	4713	4130
Male .....	...	...	...	...	3650
Richmond .....	4534	4322	3633	3281	3466
Staines .....	3785	3503	3256	3520	3268
Staines .....	2235	1832	2163	2266	3106

The remainder of the firms being enumerated as having consumed less than 150 qrs. of Malt, we have not particularized them,

## RELIEF OF AGRICULTURAL DISTRESS.

It is very gratifying to find that there is an increasing disposition among landowners and occupiers to exclude the currency question from any inquiry which may be entered into on the subject of agricultural distress. Meetings are daily taking place, which we regret our limits will not permit us to notice: there is one, however, to which we invite especial attention, as being one of the most important, if not the most important, which has hitherto been held, and which will be found reported at great length in another part of our magazine; we allude to the meeting of landholders and farmers at Taunton, in Somersetshire, on Saturday the 28th ultimo. This meeting presented a body of between six and seven hundred persons, the majority consisting of landowners and land occupiers. Landlords and tenants were there met together for the purpose of considering the best means which could be adopted for obtaining relief from that distress under which most persons admit the tenant farmer especially to be suffering at this time. The currency was, as usual, introduced, and would have proved a stumbling block, had not the good sense of the meeting avoided it. According to the report, Mr. Falkner was the only person who went at length into the subject, with a view to show that the present low prices were attributable to our money system, and that nothing short of a depreciation of the currency could possibly restore high prices, which he considers absolutely necessary to uphold the agriculture of this country. His speech was by no means calculated to bring conviction home to the mind of any man who was previously unacquainted with, or unprejudiced upon the subject. So far from it, in our opinion he betrays throughout a want of confidence in himself, and particularly in the following observations;—he says, “I feel very confident that the state of the currency is the seat of the present disorder of the farmer's affairs, and that none of the topical remedies which have been suggested will give him any efficient relief. *At least nothing less than the removal of all the burthens which now press directly or indirectly upon him.*” Here then is a direct admission that a removal of those taxes which press upon the farmer will afford him relief. The advocates of a depreciation one and all agree that its tendency would be to occasion a rise in prices. A rise in prices must be beneficial to landlords as well as tenants, inasmuch as it would enable them to obtain higher rents. The landlord, therefore, who opposes any measure tending to produce a rise in prices must be blind to his own interest, by resisting a plan calculated to increase his rent-roll. So long as the number of landlords who advocated relief to the tenant farmer by a reduction of rent and taxation to meet the reduced price of agricultural produce was small, it was easy to set them down as an isolated body of men, posses-

sing crotchety notions at variance with the positive experience of practical men; but now that we find the most opulent and intelligent landowners at almost every meeting, deprecating any steps to occasion an artificial rise in prices, when we find the depreciation of the currency advocated from the year 1819 up to nearly the present moment by several journals conducted with great talent and ability, at length abandoned, even by the *Herald* itself, it is not too much to conclude that it would be prejudicial to the general interests of the country, and therefore injurious to the agriculturists themselves, to make such an attempt. At the Taunton meeting Sir T. Lethbridge, Mr. Portman, and Mr. Sandford, all considerable landowners, deprecated any tampering with the currency, although it might possibly lead to a temporary improvement of their rent-roll. Sir T. Lethbridge ably and eloquently pointed out the injustice which must result from a return to a depreciated currency. But, says the tenant farmer it is utterly impossible to pay the present rent with wheat at 4s. 6d. per bushel. We do not doubt that such is the case in most instances, and the remedy, say we, is an instant reduction of rent. By the tenant, a farm must be regarded in the same light as a wharf, a yard, a mill, or warehouse applicable to a specific purpose. He must calculate all his outgoings as near as may be; he must estimate the probable amount of his crops at existing prices; and he should pay to his landlord only so much for rent as may remain after paying his outgoings, retaining a proper per centage for capital invested, and supporting himself and his family. If nothing remains, so much the worse for the landlord; it will not be a novel occurrence. Numerous instances could be adduced in which the amount of the poor-rate was so large as to leave no rent, and the farm has been let rent-free. In these cases, had wheat been at 8s. per bushel, instead of 6s., the land would have afforded a rent; so, if the poor-rate had been 2s. per acre instead of 20s. Rents must be reduced to the level of prices, and Parliament must remove all the burthens to which the land is particularly liable. The peculiar situation of the tenant, which precludes him from moving his stock, &c., from one farm to another, as furniture or stock in trade may be removed from one house to another, leaves him in a great measure in the power of his landlord, who, in scarcely any instance, reduces his rent so as to correspond with the proportionate decline in the value of produce. Thousands and tens of thousands of farmers have been reduced to beggary, and compelled to leave their farms, their last shilling having been taken for rent, who, if they had held by a corn instead of a money rent, would have at this time been supporting their families in comfort and respectability. Landlords should follow the example of Mr. Gould, which is thus noticed in the *Taunton Courier*:—

A very equitable and benevolent principle prevails



in the arrangements of farms belonging to J. Gould, Esq., Chairman at the great Agricultural Meeting at Taunton. On letting an estate, he goes over it with the proposed tenant, acre by acre, and both agree upon what ought to be the produce. The rent is then fixed according to the immediate market price; but if a decline takes place, the rent is lowered accordingly in the same proportion. This seems an amiable conformity with the precept, "Live and let live."

## BONDED CORN.

TO THE EDITOR OF THE MARK LANE EXPRESS.

Plymouth, Dec, 3 1835.

In the extract from the Times which appeared in your last paper, the objections advanced against the proposed measure for manufacturing foreign wheat into flour and biscuit for exportation are of so feeble a character, that if no better can be found they will almost amount to an argument in favour of it. They are stated to be reasons urged against it by "the trade." Now it is well known that with the exception of a few owners of bonded warehouses who profit by a system ruinous to their neighbours, "the trade" in general are strongly in favour of the measure from a conviction of the benefit to be derived from it.

It is stated as the main ground of objection to it, that gross frauds would be practicable under it. As the writer has not stated the nature of the frauds which he anticipates, or in what way he supposes they could be effected, it is impossible to meet him in detail, but whoever reads attentively the plan proposed for carrying the measure into practice, which appeared in the *Mark Lane Express* of Oct. 19 must see, that fraud to any considerable extent would be impossible. In fact the bulk of the article in proportion to its value would of itself be a safe guard against it, and there would be no possible advantage from attempting it commensurate with the risk. Besides the bare possibility of fraud is no argument against the enactment of a just and necessary law. The laws of the customs and excise, are very liable to evasion, which is proved by almost every day's experience, but the legislature does not therefore cease to enact them. Let the penalties as regards corn be severe and rigidly enforced and there will be no frauds of any importance.

A similar measure to that now suggested is in operation in regard to sugar under bond which is allowed to be refined under certain regulations for exportation, foreign metallic ores are also allowed to be taken out of bond for the purpose of being smelted, and there is no reason why the same system should not be adopted with regard to foreign corn without prejudice to the revenue or the agriculturist.

Another suggestion against the measure in the article referred to is, that it would be impossible for persons in this country to compete with foreigners in the supply of our colonies, since the charges in transporting the wheat hither would make the cost to the English manufacturer 15 per cent. beyond what the foreigner would have to pay. Now supposing this difference to exist, it would be more than compensated in the saving of time and expense to the British ship-owner, in having his vessel laden at home instead of going to Hamburg and ports in the Baltic for her cargo. Besides it may be expected that the superiority of British skill and capital will neutralize this advantage possessed by the foreigner, and let it be recollected that the Baltic and even Hamburg are generally inaccessible during a great

part of the winter, while the trade might still be going on from this country to the West Indies and South America. But the best answer to this objection is the fact before our eyes, that a great trade in this line has been for years carried on in the Islands of Guernsey and Jersey. These Islands being exempt from the operation of our corn laws this branch of trade is becoming of great importance to them, and from being found so profitable is rapidly increasing, steam-mills of great power are erecting with a view to its extension, and it is an instance of peculiar hardship and injustice as regards the people of this country, that they should be denied a privilege enjoyed by a small section of their fellow subjects who are far less burthened with imposts than themselves.

Let the people of this country have the same opportunity of trying it, and if it should not succeed, they will derive the satisfaction of having brought the matter to the test of experiment.

But the objector in warning us against the effects of competition, seems to overlook one most important feature in the case, namely, the advantage we should often possess over the Americans in the manufacture of flour, who it is well known export upwards of a million of barrels annually, chiefly to our West India Islands, and South America. At the present time the price of wheat in America is quoted at 44s to 48s per quarter, while wheat under bond, equally good, may be bought in this country at about 26s to 28s per qr. and of course could be rendered in the shape of flour at least 35 per cent. below the American price.

Yet with these facts before us, we are persisting in the gross absurdity, of tying up our own hands, with manifest injury to all classes of the community, merely from deference to the chimerical fears of the agriculturists, who in truth, are themselves severe sufferers by it, inasmuch as it keeps dormant, and wasting away in bonded corn, an immense capital, a great part of which would otherwise be at this moment invested in English corn, and tend to counteract the present depression.

W. C.

AGRICULTURAL DISTRESS.—At the great annual court of the Duke of Bedford, for his manor of Hardwicke, on Monday, after dinner the subject of the prevailing agricultural distress was, of course, a prominent feature in the conversation. The usual complaints were made against the government and Parliament for not affording relief; when Mr. Carpenter, of Mount Tavy, himself a large landed proprietor, on his health being drank, asked how they could apply to Parliament for relief when there were no taxes to complain of which bore exclusively on agriculture, and pronounced the only true remedy to be a reduction of rent. "Rents must come down," said Mr. Carpenter, and the sentiment was applauded by all present.—*Falmouth Packet*.

FOUNTAIN TREE.—There are few rivulets, and only three springs, in the island of Ferro, one of the Canaries; and these are on a part of the beach which is nearly inaccessible. To supply the place of fountains, however, nature bestowed upon this island a species of tree, supposed to be nearly allied to the *laurus indica*, possessing properties unknown to trees in all other parts of the world. These fountain trees were of moderate size, and their leaves were straight, long, and evergreen. Around the summit a small cloud perpetually rested, which so drenched the leaves with moisture, that they constantly distilled upon the ground a stream of fine clear water. To these trees, as to perennial springs, the inhabitants of Ferro resorted, and were thus supplied with a sufficient abundance of water for themselves and for their cattle.

## GLOUCESTERSHIRE AGRICULTURAL ASSOCIATION.

The Annual Show of the Gloucestershire Agricultural Association took place on Thursday, Nov. 26th, at the New Market, which was fitted up in the most commodious manner for the occasion. We believe we may safely aver that no exhibition of the kind ever gave greater satisfaction as to the quality and quantity of the stock produced. It was computed that nearly nine hundred persons attended, and amongst the company we observed many of the first rate breeders and feeders from the adjoining counties, as well as from distant parts. The Judges who kindly acted upon the occasion were Mr. John Turner, of Noke, near Leominster, and Mr. James Walker, of the Park, near Malvern, who were engaged the whole of the preceding day in awarding the premiums, and we have great pleasure in stating that their decisions gave greater satisfaction than is usual in such matters.

### DAIRY STOCK.

To Mr. John Price, of Pool House, Hanley, for the best dairy cow, (Hereford) ..... £8 0  
 To Mr. William Woodward, of Bredon's Norton, the second best ditto (short horn)..... £4 0  
 Miss Strickland, of Apperley Court, Mr. William Jones, of the Sheephouse, Mr. Niblett, of Haresfield, and Mr. Morris, of Maisemore, contended also for this prize.  
 To Mr. William Woodward, of Bredon's Norton, the best pair of heifers under 4 years old (short horn) ..... £5 0  
 Mr. John Price, of Pool House, and Mr. Pike, of Mytton, were also competitors.  
 To Miss Strickland, for the best pair of heifers under 3 years old (short horn) ..... £5 0  
 Mr. John Price and Mr. William Woodward contended also.  
 To Mr. William Jones, of the Sheephouse, for the best pair of heifers, under 2 years old (short horn)..... £5 0  
 Miss Strickland, Mr. J. Price, and Mr. Pike, entered also.  
 To Miss Strickland, the best bull, under 3 years old, (short horn)..... £8 0  
 No competition.  
 To Mr. Joseph Stallard, of Redmarley, the best bull of more than 3 years old (Hereford)..... £10 0  
 Miss Strickland, Mr. John Price, and Mr. Edward Barnes, also entered.  
 This premium was the gift of Messrs. Wells, Ferris, and Witts, the Judges of last year.

### Mr. Baker's premium.

To Mr. John Price, the best bull, cow, and offspring, (Herefords) ..... £10 0  
 Mr. William Jones and Mr. Edward Barnes entered also.

### FAT CATTLE.

*Premium—the gift of W. L. Lawrence, Esq.*

To Mr. Polhill, of Eyford, for the best fat ox (short horn)..... £10 0  
 Additional as breeder..... £2 0  
 Mr. John Crump, of Hasfield, Mr. Pike, of Mytton, Mr. John White, of Abloads Court, Sandhurst, Mr. D. S. Hayward, of Frocester, Mr. Edward Barnes, of Tirley, Mr. Thomas Brunson, of Cheltenham, and Mr. Walters, of Barnwood, competitors also.

The Judges particularly commended Mr. Walters's Hereford ox, and the oxen generally in this class.

To Miss Strickland, for the best fat cow, (short horn)..... £8 0  
 As breeder also ..... £2 0

Mr. Brown, of Minety, Mr. Peacy, of Chedglow, Mr. Edward Barnes, of Tirley, Mr. Niblett, of Haresfield, and Mr. William Woodward, of Bredon's Norton, were also competitors.

The Judges expressed their admiration of the whole of the fat cows exhibited for this premium, and desired

that it might be said that their selection was made with difficulty.

*Premium of J. W. Walters, Esq.*

Mr. Charles Nind, of Haresfield, near Winchcomb, for the best fat heifer, (Hereford) £10 0  
 Bred by Mr. William Doe, of Ditchford Hill, Worcestershire.

Mr. William Priday, of Longford, also showed for this premium.

### SHEEP.

To Mr. William Hawkins, of the Hawthorns, for the three best long wool ewes ..... £5 0  
 Mr. John Crump, of Hasfield, and Mr. William Slatter, of Stratton, also entered.  
 To Mr. Joseph Hall, of Coates, for the three best long wool shear hogs..... £5 0  
 Mr. William Hawkins also entered.  
 To Mr. William Slatter, of Stratton, for the three best long wool theaves..... £3 0  
 Mr. William Hawkins, Mr. John Crump, and Mr. Thomas Hall, also entered.  
*Premium, the gift of C. W. Codrington, Esq., M. P.*  
 To Mr. Thomas Hall, for the best long wool ram ..... £5 0  
 Mr. W. Slatter entered also.  
 To Mr. W. Jones for the best short wool ram, ..... £5 0

No Competition.

### PIGS.

To Mr. John Beach, of Redmarley, for the best fat pig ..... £2 0  
 Mr. John White and Mr. D. S. Hayward, also contended.

### HORSES.

To Mr. Thomas Hall, of Througham, the best cart stallion ..... £5 0  
 No competition.  
 To Mr. Brown, of Minety, for a cart mare and foal ..... £5 0  
 No competition.

*Premium, the gift of C. W. Codrington, Esq., M. P.*

To Mr. Webb, of Haresfield, for the best cart mare, rising 3 years old..... £3 3

### CHEESE.

To Mr. William Hawkins, for the best hundred weight ..... £3 0  
 To Mr. Leonard, of Water End, the second best ditto ..... £2 0

### MECHANICS.

To Mr. Anslem Bailey, of Churcham, for a skim plough..... £2 0

### LABOURERS.

To Samuel Newman, recommended by Mr. Joseph Stallard, of Redmarley, the first premium, for having lived with him twenty years, and brought up nine children, without parochial relief ..... £3 0  
 To Samuel Aigne, recommended by Mr. Wm. Woodward, of Bredon's Norton, the second premium, for having brought up seven children, without parochial relief.. £2 0  
 To Hannah Davis, recommended by C. B. Smith, of Whaddon, for having lived for eighteen years as dairy maid in his service ..... £2 0

### THE DINNER, AT THE KING'S HEAD.

At half-past four o'clock nearly one hundred gentlemen sat down, the President of the Association, the Right Honourable Lord Segrave, in the chair; the Secretary, John Kemp, Esq. Vice President. Amongst the company were the Hon. Craven Berkeley, M. P., C. W. Codrington, Esq. M. P., E. Holland, Esq. M. P., W. Goodrich, Esq., W. L. Lawrence, Esq., J. W. Walters, Esq., W. Polhill, Esq., E. Hopkinson, Esq., H. N. Trye, Esq., J. C. Hayward, Esq., D. J. Niblett, Esq., &c. &c. After the cloth was removed upwards of thirty gentlemen joined the party.

A number of appropriate toasts were drank and the evening passed off with the greatest good humour and conviviality.

## HORSEMANSHIP.

## THE RESTIVE OR RESTY HORSE.

No description which ever yet appeared on paper has given a correct idea of the subject under consideration ; and for the best reason in the world, namely, that those who have written upon it were most profoundly ignorant of what must constitute its very essence, *practical knowledge*. There are various degrees of restiveness in horses : the first arises from a trifling degree of obstinacy of disposition, which will manifest itself in the following manner:—If, on returning from a journey, the rider should attempt to reach home by a different road from that to which the horse has been accustomed, and which the horse suspects does not lead to his stable, he will testify symptoms of unwillingness to proceed according to his rider's wishes, even to the extent of rearing; but, if pulled round, will go on without further trouble. Many horses, good tempered and willing in general, will show disobedience to this extent. I rode, for two years, a good little Irish horse, which would occasionally rebel in this way, and which, nevertheless, was, on the whole, a pleasant horse to ride.

There are others which will carry this disposition to a much greater extent, will resort to disobedience oftener, and are consequently more troublesome, and more dangerous.

The next degree of restiveness arises from a lazy, bad disposition. I will exemplify it. Seven or eight years ago, I accidentally purchased a thorough-bred grey mare for a trifling sum. I met with her in a large town in the North of England, and she (like most restive horses) went quietly and even willingly in the street, and so long as she entertained no suspicion that it was intended to take her far from the stable. I resided at the distance of several miles, and sent my servant the following day, to fetch her home. As soon as they reached the outskirts of the town, the mare refused to carry him further; and the man, not being a superior rider, dismounted and led her. This circumstance, however, he did not mention to me. In the stable, this mare was as quiet and as good tempered as possible; it was not till after a lapse of several days that I got upon her back, and had not proceeded one hundred yards before I began to suspect her disposition. She pointed her ears forward, breathed hard, and was prepared to stare and affect to be frightened at any object which came in her way. However, I did not let her perceive that I noticed these indications of vice, or we should have come to battle sooner, as an animal of this description very soon discovers if the rider be timid or awkward. We had proceeded about four miles, when she thought proper to shy at a post, started and turned suddenly back. I twisted her round several times, gave her the steel once only, and she went on.

About a mile further, she refused to pass a stable-yard; I resorted to the same expedient and with the same success. I was enabled to ride her afterwards with little trouble; but, as she possessed neither sufficient speed nor power for my purpose, I sold her. This animal's restiveness proceeded entirely from a cunning and lazy dispo-

sition; but she was not the less dangerous on that account.

A friend of mine, a few years since, after bargaining for a fine chestnut mare, reserved the condition, that I should ride her a few miles. She went unwillingly, and when about two miles from home, refused to proceed further. I sat quietly on her back; and, in the course of a few seconds, she began to move stern foremost, and continued this retrograde motion for about twenty yards, when I twisted her round several times, placed her head in the direction I wished to pursue, and gave her the steel very freely. About two miles further brought me to an inn by the road-side, when she made a rush to the stable-yard, and endeavoured to crush my leg against the wall: this I frustrated by bending her head to the wall, where, however, she endeavoured to remain: she hung like a dead weight, and appeared as sulky and as savage as possible. I adopted those modes and manoeuvres which the reader will find described under the head, Management of the Restive and the Vicious Horse, and reached the end of my journey. As I expected, this mare came home without manifesting restiveness, or vice of any kind. She was a very dangerous brute, and a bad goer into the bargain. I have often heard it very thoughtlessly and very ignorantly asserted, that restive and vicious horses, when once reduced to obedience, generally evince superior powers of speed and strength; or, in other words, are superior animals; which is quite a mistaken notion, as the qualities just mentioned must depend on animal organization: there must be the requisite form to produce these effects.

Many restive horses will go well enough in company. Some years ago, a dealer offered me a very fine-looking horse at what I thought a very moderate figure, or price, and I was disposed to purchase him; but made a previous trial, the *sine qua non*. The animal appeared well calculated for hunting, and he was represented as perfect in the business. On going to meet the hounds with him, the dealer's brother accompanied me, on another horse; and although the animal on which I was mounted manifested no unruly disposition as we proceeded to the fixture, there was something in his manner which excited my suspicion, which, indeed, is the case with most, if not all, restive horses. A hare was soon found; and the horse went well, and took several fences in good style. At length the dealer's brother and myself became separated, when, as I expected, the horse in question displayed—not the cloven foot—but a most villainous disposition. The next jump he refused; and although I ultimately forced him over or rather through, I was brushed out of the saddle by a young and pliant oak. However, I never quitted the bridle; and, having re-mounted, was anxious to proceed. I reached the next fence within about thirty yards, when the animal refused to go at it: a battle was the result; and though, after much trouble and punishment, I forced him up to it, I could not induce him to rise: he blundered through it. There the matter ended: I returned the horse. But it frequently happens that a restive horse will go well with hounds. A friend of mine had a restive brute, one that kicked, on

mounting, tremendously, and was altogether of a savage disposition; yet, when the fit of kicking was over, no horse could go better with hounds.

The last restive brute which I possessed, was a Friend Ned mare, well and powerfully formed, and an excellent hunter. She was the most cunning and the laziest animal upon which I ever sat; and her vicious habits arose from those dispositions. When I purchased this mare, she was very low in condition; and although I gave her a gallop, prior to riding her home, she made no signal which excited my suspicion. I allowed her to go very gently home; and was not surprised at her sluggishness, which I concluded arose, in a great degree, from want of condition. It so happened that business took me from home, and I did not ride her again for several weeks. In the interim she had been well fed; and, as I afterwards learned, had thrown my servant several times in her exercise. I mounted her again early one morning, not entertaining the slightest idea of the pranks she was about to play; but I had not ridden many hundred yards before I met the mail coach, when she instantly turned short round and galloped in the direction for her stable. The trick was performed so suddenly, and I was so unprepared for it, that she had galloped twenty yards before I was prepared to oppose her. On placing her head in the right direction again, she affected to be much alarmed at the coach: she ran sideways, kicked and plunged, and exhibited all those vicious and dangerous antics for which horses of this temperament are remarkable. I now became fully aware of the disposition of the animal with which I had to deal. After passing the coach, she affected to run away; and, as the road was clear, I let her go, sitting firmly upon her, and having her well in hand. She soon slackened her pace, and dropped into a trot; and she would soon have dropped into a walk, had I not given her to understand that in this I should not indulge her. I trotted her on smartly: she placed her ears pointing forward, an evident manifestation of ill-will; and every now and then made a sudden start, or rather *side-jerk*, as if she took fright at a stone, a heap of dirt, a stump, or any thing which happened to present itself. It will be as well here to remark, that this lazy brute knew the mail coach as well as her rider; and that either at it or the other objects just mentioned, she was no more alarmed than myself. It was all affected, under the impression that she would thus, by alarming or throwing her rider, be enabled to return home; and had she been suffered to return, she would not have made the least hesitation, had she met fifty coaches. Indeed, had I suffered her to proceed at her own pace (about three miles an hour), I might have accomplished my journey with the bridle loose on her neck, as she would have gone as quietly and as safely as possible. However, I wished to proceed at the rate of eight or nine miles an hour, which she was very unwilling to perform; and, as she kept playing her tricks, on coming to a bye-lane, I turned into it for the purpose of fighting the battle fairly. The lane was little frequented, was sandy, and destitute of walls or other objects which could place me in

danger. I took her fast by the head, put her into a gallop, and compelled her to increase her pace by the very free administration of the steel. For some time she made her *side-jerks* most viciously; and on all these occasions she received the spurs in return, as severely as I could give them. We thus proceeded about a mile, the mare gradually giving up or submitting, till at length when I pulled up she was completely beaten. The punishment she had received was severe, and she went as quietly and as submissively as possible for the remainder of the journey. I am no advocate for coercive measures except where they become indispensable: this was one of those cases.

By way of illustration, I will here observe, that, some years prior to this period, I had a fine bay horse (by Champion) remarkably powerful and uncommonly high-spirited and playful. He, being in high condition, would dance and caper, and play pranks enough to alarm a timid horseman, particularly by the cover side, when drawing for a fox; but it was mere frolic and play; he had not a particle of vice in his composition; he was an excellent tempered animal. It would have been cruel to have punished him for a display of his frolicsome disposition, as the moment the fox went away, all was right.

The mare above-mentioned I rode for one season with the hounds: she jumped remarkably well, could go a good rattling pace, and was the best *creeper* I ever saw, a circumstance arising entirely from her extraordinary cunning and lazy disposition. But she was an unpleasant animal to ride: she was continually manifesting an obstinate unruly temper: if you wished to take your own line of country, she would rebel against such a proceeding; and, in fact, before she could be ridden with confidence or pleasure after hounds, it became necessary to administer a similar punishment to that already described.

This mare was a very greedy feeder; no creature could be quieter or better tempered in the stable: her object was to eat as much as possible and avoid labour. A child might ride her, if the bridle were laid loose on her neck, and she allowed to proceed at her own space. Such was her antipathy to move along at any thing like speed, that when pressed forward, she would throw her fore legs about in such a manner as to *speedy-cut* and come down.

#### THE VICIOUS HORSE.

Of course what has been stated in the few preceding pages might have been placed correctly enough under the present head, since restiveness is a vice of the worst description; but as there are vicious horses of a different temperament, I have chosen to ramify the subject for the purpose of more clear elucidation.

The celebrated horse Lottery is vicious, in the sense it is here intended to be understood. He possesses an unruly, savage temper, both in the stable and out of it: he would worry his groom and throw his rider. He will bite, kick, and plunge; and, in consequence, his running was always uncertain. He was one of the finest and the fleetest racers that ever appeared on the turf; and when he happened to be in temper for running, beat every opponent with great ease. As like

produces like, many of his stock have inherited the bad temper of the sire; and on this account I should always decline breeding from a vicious or restive animal on either side.

Lottery indicated a vicious disposition from earliest life; but, having, in his exercise, thrown the lad who rode him, he galloped off, and was not secured without difficulty: this circumstance rendered him more unmanageable: so much so, indeed, that his running could never afterwards be depended on: whence his name, *Lottery*, being originally called *Tinker*.

Orthodox, a very uncertain racer, seemed to unite the qualities of the restive and the vicious horse. On being brought to the post to start, there was a glaring timidity of expression in his eye, which was very remarkable, and which could be compared to nothing which ever fell under my observation. He evidently entertained a most inveterate antipathy to the severity of the race-course, and frequently tried to avoid it by bolting.

Mameluke, like Lottery, was naturally vicious: and his running, therefore, like that of the latter, could seldom be relied on.

Wellington was originally good tempered. I saw him when a yearling, and never saw a better tempered animal: he was very improperly managed, and became vicious: when first brought on the turf, he ran as kindly as possible, but became very uncertain afterwards.

Vicious horses vary in disposition; and some that are dangerous in the stable are pleasant enough on the road, the turf, or the field. Mayfly was very vicious in the stable, but I never saw him run unkindly. Clinton was quiet enough in the stable, but would frequently rear and plunge on the course, and generally started in a savage unruly manner. Clinton possessed more than ordinary cunning. He would carry his groom quietly; but when the jockey came to mount him for the race, he would plunge and rear, and try to unseat his rider, in which I have seen him more than once succeed. He ran several severe races, wherein the whip and spurs were freely administered: whenever, therefore, he observed the silk jacket approach, he seemed to be well aware that the whip and spurs might follow.

What, for the sake of distinction, may be called a *restive* horse, will be uniformly found to possess a superior degree of cunning, and they resort to a variety of unpleasant, provoking, and dangerous tricks, from a thorough laziness of disposition. The *vicious* horse will rear, kick, or plunge, from a fiery or bad temper: such animals are generally vicious in the stable; while the *restive* horse very seldom shews either vice or bad temper except when put to work. The *restive* and the *vicious* horse are distinguishable by a peculiar expression of countenance: the eye of the latter will indicate bad temper, and this sinister expression is very often assisted by a peculiar movement of the ears; in the eye of the former will be discovered a degree of intelligent cunning, which will be vainly sought in a horse of any other temperament or disposition.

Amongst vicious horses must be classed those which are apt to run away; a vice which uniformly arises from inefficient breaking or improper

treatment; and when once a horse has played this prank, he will try to repeat it.

Generally speaking, vicious horses appear to inherit a bad temper from nature. Bad tempered horses may be often rendered obedient and submissive by proper treatment; but when animals of this description fall into the hands of ignorant passionate men, they become vicious. High-spirited horses will become vicious in such hands.

I scarcely ever saw a vicious or restive horse that had not a broad forehead.

Race-horses which manifest an unruly disposition are frequently castrated, which has sometimes the wished-for effect, but fails in many instances.

A vicious horse is never to be trusted; and although such animals are not uncommon on the race-course, their proper place is the off wheel of a stage coach.

#### *Instructions for the Management of Restive and Vicious Horses, as well as for the Rider's Conduct in all dangerous Situations.*

In the first place, let it be well impressed upon the mind, that the horse possesses much greater strength than his rider, and that, consequently, in all our contentions with him, we should meet his power by scientific skill, in which case, we are sure to acquire the ascendancy with little risk or danger; but if force be opposed to force, the horse immediately understands the nature of the contest; he will dispute the matter stoutly, he will place the rider's neck or limbs in jeopardy; and, if he ultimately yield, it will prove but a drawn battle, which the animal will seldom fail to renew on the first favourable occasion. When the efforts of an unruly horse are met by the requisite skill, he does not understand the mode by which he is frustrated; he therefore loses his confidence, and submits.

Of all vices in a horse, rearing is the most to be dreaded. We shall be told by grooms and others that the most effectual method of curing a horse of this dangerous vice is to slip off, pull the animal over backward, and administer punishment while he is on the ground. I have seen this method successfully practised; and I am inclined to think that it will answer the purpose in all cases where it can be effectually accomplished. But it is not easy of accomplishment, unless by a masterly horseman, and a mode which cannot safely be recommended in general. It must also be recollected that a vicious horse, after being completely subdued by one person, will seldom fail to dispute the point with a strange rider. This is the most unfortunate part of the business, and which renders all animals of this description uncertain and dangerous.

In the first place, I would never advise any person to purchase a vicious horse; since, whatever good qualities the animal may possess, they are neutralized in a great degree by his vices, while the use of him is always attended with danger. But when it so happens that a person finds himself in possession of a horse of this description, if he feel desirous of trying the experiment of reducing him to obedience, he will find the following instructions well calculated for the purpose.

When a horse is addicted to rearing, kicking, bolting, plunging, and the like, the modes of horsemanship which I have described in preceding numbers must be brought into action, steadily and forcibly applied, in which the advantage of good hands will be strikingly conspicuous.

The operation of the hands is intended to prevent and deter an unruly or vicious horse as much as possible. The rider's arms must be pressed firmly to the body, the reins separated and taken into both hands, the hands a little up. In this position, the rider should not pull at the horse, unless the latter attempt to force the hands and get his head; on the contrary, the horse should have liberty to move forward, but not to get his head down, since, with his head in that position, he would be enabled to kick most violently; while, with his head held well up, he is prevented from kicking with any degree of violence, and he can only make a bolt upon all fours, something like the awkward jump of a horse at a standing leap when his head is confined, but not quite so rough; for, there being no bar in the way, the horse does not attempt to jump *perpendicularly* (if I may be allowed the expression) but forward, evidently intending to force himself out of the rider's hands, and spring from under him. Therefore, when you perceive the horse inclined to play these tricks, you, as a matter of course, prepare yourself for the encounter in the manner just described, applying both hands to the reins, &c. The body must be kept upright, but very flexible, so as to accompany every movement or action of the horse, and be thus prepared to repel every effort he may make (the corresponding motion, so frequently mentioned, can never be too strongly impressed on the mind of the rider). Your balance will be assisted by the close adherence of the thighs; the legs kept close to the horse, but not severely pressed till you feel the necessity; for the horse will be in alternate motion with his fore and hind legs, and you know not whether he will rear or kick. If he lifts his fore legs, thrust your rump out behind, by which you are prepared if he rears; as the fore feet come to the ground, slip your breech under you, and you become ready for his kicking or springing forward, the legs being in a situation to grasp at the instant, while a steady hold with the hands operates as a restraint upon the horse, and keeps him from falling.

Every unruly or vicious horse will be found to adopt or put in practice his own peculiar mode of offensive or defensive operations: some rear, others kick, some turn short to the left, others to the right; some run sideways against a wall, some refuse to do what they are required, others will only offer battle when they perceive they have the advantage of situation. But it is not possible to enumerate all the stratagems to which a horse will resort for the purpose of foiling or throwing his rider. However, of all the means resorted to by the horse for the accomplishment of his purpose, *rearing* is the most dangerous: a rearing horse will sometimes rise so unexpectedly and so rapidly, that the rider has very little notice or time to prepare himself:—some of them will rear so high as to be in danger of falling backwards; but a horse addicted to this violent rearing is scarcely ever

known to kick; the rearing, therefore, is what you have to guard against, and when he takes you unawares, your body must instantly incline forward close to his neck, your hands forward, on each side, so as even to clasp him round the neck, should that be rendered necessary—and it will where a horse resorts to such desperate rearing.

Nor are horses very easily cured of this very dangerous vice; that is, if they be viciously inclined, and determined rearers. Some will rear from playful excitement, but this amounts to nothing, as they never rise to any alarming height.

When a determined rearer is playing his vicious pranks, an active and a thorough horseman may, when the horse's fore legs are in the air, slip off, on one side, (keeping the rein in one hand) and pull the horse over backward. This operates most powerfully in subduing the horse, and he will seldom give you an opportunity of repeating it; that is, he will be careful how he rears again with the same rider. But such an experiment should never be attempted by any but an expert and clever horseman, one who feels perfectly conscious of his ability to perform it with safety to himself. And after all, it only remedies the evil as far as relates, to the rider who performs it; since if a determined rearer, after having been thus subdued, passes into the hands of another person, he will generally have recourse to his old but not forgotten tricks.

A person, named Godwin, who resided at the village of Daresbury, in Cheshire, purchased a vicious rearing horse; but as the animal was well calculated for a hunter in all other respects, and Godwin being a good horseman, he took the horse into the fields in order to induce him to commit the fault, that he might have a proper opportunity to administer the remedy. Godwin threw the horse backward, and while the animal was on the ground, he kept him down for some little time, during which he applied severe correction. Godwin mounted again, and the horse went as quietly as possible. This man rode him after Sir H. Mainwaring's hounds, and no horse could go more steady, and few could perform so well. He was purchased by the gentleman just mentioned, and came into the hands of W. Head, the huntsman, when he refused obedience, and again took to rearing:—I never recollect having seen a more vicious or determined rearer. The huntsman, being a good horseman, contrived to subdue him, but not till after a number of struggles for the mastery had ensued between them, as Head did not resort to the dangerous expedient of pulling him backwards. I afterwards saw this horse carry the huntsman very steadily, but evidently more from fear than good will, as was apparent by the expression of his eye. I believe the horse was quiet in the stable, which is the case with many similarly unruly horses.

In preference to the dangerous experiment of pulling a rearing horse backward, I recommend the adoption of the following method:—whenever you perceive the horse's inclination to rear, separate your reins and prepare for him: the instant he is about to rise, slacken one hand and bend or twist his head with the other, keeping your hands low. This bending compels him to move a hind leg, and of necessity brings his fore feet down.

Instantly twist him completely round two or three times, which will confuse him very much, and completely throw him off his guard. The moment you have finished twisting him round, place his head in the direction you wish him to proceed, apply the spurs sharply, and he will not fail to go forward: if the situation be convenient, press him into a gallop, and apply the spurs and whip two or three times (but not more) severely. The horse will perhaps not be quite satisfied with the first defeat, but may feel disposed to try again for the mastery. Should this be the case, you have only to twist him, &c. as before, and you will find that in the second struggle he will be much more easily subdued than on the first occasion—in fact, you will perceive him quail under the operation. It rarely happens that a rearing horse, after having been treated in the way described, will resort to his tricks a third time. But, on going into other hands, and having another rider, he will be very likely to have recourse to rearing.

All vicious horses have a favourite side, which they are prepared to defend, and they therefore must be attacked on the other.

It has been already observed, that a horse addicted to rearing high, seldom, if ever, kicks; and, on the contrary, a horse given to violent kicking, is scarcely ever known to rear. If you follow the directions given in the fifth paragraph of this article, he will not be able to kick, or at least only in a trifling degree; and finding himself foiled, he will not long continue the battle. In this case, twisting the horse round will have the desired effect; and indeed there are few cases of unruly horses where it will not: to accomplish which you must twist him round on his weak side, as he will be prepared for you on the other, and you would not be able to move him round; but in no case correct a horse beyond the just measure of punishment, let it also be well-timed, and administered without passion—lest you provoke him to further resistance. Whatever feeling influences the rider's mind, it will not fail to have a corresponding effect on that of the horse; and, consequently, cruelty, anger, and revenge, will operate most powerfully against that concord which should subsist between the horse and his rider. With an unruly horse, the rider should be as cool, as firm, and as philosophic as a Stoic. The moment the battle is over, let the horse and his rider become friends: the horse, being ashamed from defeat, will be thus soothed and brought into good temper; and, as all provocation has ceased, he will feel no disposition to renew the contention.

**PRESERVATION OF POTATOES.**—A farmer in the neighbourhood of St. Alban's, an extensive potato-grower, has lately discovered a cheap and simple mode of preserving that valuable root. A pit is dug the required depth, the bottom of which is lightly spread with gas tar, over which is placed a layer of tanner's bark to the depth of three inches; the usual quantity of wheat straw is then laid over the top. By these means he has this year preserved two pits; the one has recently been opened, the produce of which, from its soundness and freshness, has been justly praised by his neighbours. It is likewise worthy of mention that the bark after this process, proves an excellent top dressing for wheat, even superior to soot.

HOPS.

AN ACCOUNT OF THE DUTY ON HOPS OF THE GROWTH OF THE YEAR 1835, DISTINGUISHING THE DISTRICTS, AND THE OLD FROM THE NEW DUTY.

DISTRICTS.		DUTY.		DISTRICTS.		DUTY.	
		£	s. d.			£	s. d.
Barnstaple....	28	16	0	Brought forward.....	128914	15	10
Bedford.....	142	18	6	Northampton.....	0	8	6
Cambridge.....	26	2	4	Oxford.....	26	10	2
Canterbury.....	98975	9	8	Plymouth.....	5	0	6
Chester.....	0	16	2	Reading.....	8	1	0
Cornwall.....	13	14	3	Rochester.....	144681	8	6
Derby.....	30	17	4	Salisbury.....	2464	10	0
Dorset.....	16	0	9	Salop.....	0	2	10
Essex.....	2131	19	2	Stourbridge.....	1083	15	0
Exeter.....	14	15	8	Suffolk.....	791	17	2
Gloucester.....	0	6	10	Surry.....	3	17	4
Grantham.....	3	4	4	Sussex.....	127458	14	4
Hants.....	4386	1	10	Uxbridge.....	9	13	2
Hereford.....	22734	11	10	Wales, Middle.....	95	4	2
Hertford.....	57	19	6	Wellington.....	31	11	4
Lincoln.....	350	3	4	Worcester.....	3480	7	11
Lynn.....	0	18	4				
Carried forward.....	128914	15	10	Total.....	109955	18	3

Old duty, at 1d 12-20ths per lb.....£235,207 2 11½  
 New duty, at 3d 8-20ths per lb.....173,848 15 3  
 Total.....£409,055 18 3

G. F. COTTRELL, First General Accountant,  
 Excise-office, London, Nov. 27, 1835.

IMPORTATIONS OF FOREIGN GRAIN AND FLOUR INTO THE UNITED KINGDOM DURING THE LAST SEVEN YEARS.	
From Oct. 1, 1828 to Oct. 1, 1829.	From Oct. 1, 1829 to Oct. 1, 1830.
1,829	1,830
1,830	1,831
1,831	1,832
1,832	1,833
1,833	1,834
1,834	1,835
1,835	1,836
1,836	1,837
1,837	1,838
1,838	1,839
1,839	1,840
1,840	1,841
1,841	1,842
1,842	1,843
1,843	1,844
1,844	1,845
1,845	1,846
1,846	1,847
1,847	1,848
1,848	1,849
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1,992	1,993
1,993	1,994
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1,998	1,999
1,999	2,000

## AGRICULTURAL MEETINGS.—WHAT MUST THE FARMERS DO ?

(To the Editor of the Yorkshire Gazette.)

SIR,—The various agricultural meetings which are now holding, and have lately been held, have excited considerable interest, and the cry is, that the farmers are bestirring themselves; and so they are, when compared with the listless inactivity they manifested, in anything wherein their interests were concerned, some three or four years ago; but after all they are nearly powerless. Their weakness consists in this, they have no unity of purpose—they have no head. Scarcely two societies are based upon the same principles;—scarcely two agree as to the nature or extent of the relief they want. I make these observations in consequence of the refusal of the York Agricultural Association to send delegates to the proposed Aylesbury Meeting, because I think that a want of mutual communication between the various associations, and a knowledge of their views, feelings, and principles, are such serious defects, as to paralyze the exertions of the whole.—The Marquis of Chandos has, indeed, by his indefatigable exertions, proved himself to be “the farmer’s friend,” and the agricultural interest has every thing to expect from his support, provided his efforts are stoutly and perseveringly seconded. From previous letters which I have addressed to you, (and here I beg to express my thanks for your readiness in giving publicity to anything likely to prove beneficial to the Agricultural interests,) it will be remembered, that my opinions of agricultural distress, and its remedy, were, that much of it rested with the landowners themselves, and that the destruction of the large-farm-monopoly, was the principal (though not the only) means by which our distress may be alleviated. The increase of the poor-rates, and consequently of the expense at which the farmer raises his corn;—the diminished consumption of farm produce, and the undue influence of the large farmers on the markets, I have stated, are the causes of our depressed condition, and the results, in a great measure, of the system of letting large farms.

At a recent meeting of the Manchester Agricultural Society, I am glad to find this subject was introduced by J. Forenby, Esq., of Everton, in a speech replete with sound reasoning and good sense; and which at once evinced a deep interest in the welfare of Agriculture, and an extensive practical knowledge of its wants and prospects. To that speech I refer the farmers, and will just quote the conclusion. “The conclusion he drew from these facts was, that it would be advisable, where it was practicable, to divide large farms into small ones, and this important consideration he wished to press upon the attention of the landowners present.” To this we find a sort of interrogating reply, by a Mr. Dixon, who is represented to have inquired—“if large farms were to be divided into small ones, where would be the men of capital, reading, and intelligence? On the contrary, his opinion was, that if farms were made sufficiently large to require and induce the introduction of persons of intelligence and capital, agriculture would be much more improved than by making large farms into small ones.” Now if these assertions are correct, what relief would dis-inheriting the small farmers, and sending them to the poor-house afford to agriculture; for to the poor-house they must go if their farms were taken from them. It might possibly favour the monopolists, but it would terribly affect the welfare of the community, and add to the present agricultural burdens. But is there no intelligence, no reading, amongst the small

farmers? What folly to suppose this! There are ignorant persons among them, certainly, but there are certainly as many in proportion, and more, amongst the large farmers, who frequently commit their concerns to a hireling bailiff. But he inquires about capital. Now the temptations which large farms hold out to persons to take them above the extent of their capital have been the ruin of thousands, and in short the result has been, that scores of farms are thrown into a state of ruinous sterility, which had they been apportioned out so as to meet the capabilities of small capitalists would have been abundant and productive, and have afforded an independent livelihood, and constant employment to hundreds of families. But all their “capital” would never have been able (supposing large capitalists would engage in agriculture) to maintain the vast numbers of homeless small farmers, which this consolidation of farms would throw upon their support.

But Mr. Dixon must never have considered his position, when he says, “the making of small farms into large ones” would “require and induce the introduction of persons of capital and intelligence.” Where, I beg leave to ask, would they be induced to come from? Would they leave manufacturing, their trading, or their commercial professions to improve agriculture? The small capitalists he would certainly exclude; he admits it. But who engaged in any profitable employment, would leave it for any agricultural speculation? And if they should, what improvements are we to expect from persons unacquainted with the very theory of agriculture. His plan would send to their parishes those who understood and had been bred up to farming occupations, and introduce ignorant inexperienced persons, who would destroy the very vestiges of British agriculture. But this is not a question of improvement, but of the wealth and existence of the agricultural community.

But we now come to the question—what must the farmers do? Let them rally round a head, and let them endeavour to impress upon the landowners the evils of the large farm system. It is not high rents, it is a poor rate of from 2s 6d to 3s in the pound, and which is equal to 5s and 6s in the pound, when farm produce was selling at double the price at which it is going at present, and the less consumption of farm produce, both caused principally by the ruined small farmers, and diminished demand for labour, which produces our distress.

I trust this subject will be entered into at your meeting at York, (for although it is on the day of the publication of this paper, yet this will be read by the principal part of the farmers, ere they assemble) and if it appears to be necessary I have no doubt but the landowners, ever ready to do their utmost to render a service to agriculture, will adopt the plan of dividing large farms, to the extent of one hundred and fifty acres each. I remain, your’s,

A Practical Agriculturist,  
Yorkshire, Nov. 10th, 1833. W. E. N.

PATENT HORSE SHOES.—A newly-invented horse-shoe has just been invented by Mr. Gregory, formerly of this town, and late of Ilminster, veterinary surgeon, which promises to be of vast public benefit. A patent has been obtained for it in concert with another person. The shoes are produced by steam engine operation, at the rate of three thousand per hour, and are sold at two-pence each! (being about one-fourth the general cost of a horse-shoe!) An intelligent coach proprietor of this town affirms, that having tried them on horses over a rough road, he has found them to last longer than those of ordinary manufacture.—*Taunton Courier*.



## THE LANDOWNERS AND THE CORN-LAWS.

MR. EDITOR,—I have read, very attentively, Earl Fitzwilliam's Second Address to the Landowners on the Corn-laws. This subject is of vital importance to all those who are so unfortunate as to have their capitals vested in tillage, as well as to the landowners themselves. To a certain extent the interests of both are the same, and many of the arguments used hinge upon expected good or evil to the present occupiers of the land, as must naturally be the case in discussing this question—a question which demands the deepest consideration, for its importance is second to none; and I am feelingly convinced of the truth of Mr. Burke's remark, that "it is dangerous to make experiments on the farmer, whose trade is a very poor one, and whose capital is much weaker than is generally imagined." I propose to examine the strength of his lordship's reasoning, particularly as the authority of his high rank and individual respectability may possibly give more weight to his opinions than his arguments might gain; I mean with those well-meaning persons who have not much considered the subject, and with that large class who are predisposed to his lordship's views by their own separate interests.

It does not seem to be his lordship's intention to recommend a free trade in all the products of industry, nor does it appear that he contemplates any protecting duty at all for corn, but merely "such a duty as may be fairly levied for purposes of revenue." Now, surely this is very unreasonable in the present state of things. Almost all writers on political economy freely admit the just claim of the English grower to such a duty on imported corn as would "countervail the peculiar burdens to which he is subject." Mr. Ricardo allows also a drawback on exportation, "which he must have to place him in a fair state of competition in the foreign market, not only with the foreign producer, but with his own countrymen, who are producing other commodities." (Protection to Agriculture, page 53.) This is clearly justice only, and no favour, so long as the peculiar burdens remain; but it would be better to obviate the necessity for all this by taking them off, if possible (as the aggregate amount of them might be matter of dispute), and so to equalize general and local taxation, that every class might bear its fair share. If the above scheme (of Mr. Ricardo's) were adopted for the grower of corn, no other class of producers could justly claim any *protecting duty* at all, except on the proof of their *peculiar burdens*. It is well known, however, that almost every home-made commodity is protected, at present, by duties varying from 15 to 60 per cent. on the importation of similar articles; but this is seldom mentioned, and all the odium of *monopoly* is thrown on those connected with the land. I scarcely know what to think of the noble earl's serious proposal to the landowners to surrender *all corn-laws*. I have always considered "that the restrictions on the import of foreign corn were part of a whole system of restriction, devised and continued for the purpose of encouraging both domestic produce and domestic manufacture; that the grower of corn is no more a monopolist—no more a gainer by protection than is the watchmaker, the hatmaker, the shoemaker, the glover, the manufacturer of paper, of silk, of brass-work, of woollen, of cotton, of porcelain, of carriages, of everything. Destroy the whole system of protection and prohibition and even then you will have to consider whether the burdens upon the land are not unfairly laid—whether the produce of the

land, malt for instance, is not taxed in a degree which, although the tax is paid by the consumer, unduly encourages the consumption of other articles, to which, but for the tax, malt would be preferred. Is it just that the land should bear so large a proportion of the expense of maintaining the roads, and of administering criminal justice, when the large towns, the congregation of masses in manufactures, contribute so much more than the land to the production of crime?" "I contend, then, that before you determine to take off the restriction on the import of foreign corn, you ought to look at the burdens to which the landholder is subject, and at the difference of degree in which those burdens, whether local or public, press on the landed proprietor and the manufacturer respectively. Consider the land-tax, the malt-tax, and the payment of tithes—for tithes are admitted, by all political economists who have written on the subject of free trade in corn, to be a tax peculiarly burdensome, and for which the land is intitled to equivalent protection." "The amount of poor-rates paid in 1823, which, though it may refer to a somewhat remote period, will yet show the proportionate pressure of that impost upon land and upon trade. The total amount of poor-rates paid in 1823, in England and Wales, was 6,703,000*l.* Of this, dwelling-houses paid 1,762,000*l.*; the land 4,602,000*l.*; and mills and factories only 247,000*l.*—namely, one-eighteenth part of the payment of the land. I ask, therefore, can it be said, after such a statement, that the local burdens are fairly apportioned between the landed and manufacturing interests? And have not the proprietors of the land a right to claim, on this head alone, that degree of protection for their property, which is equivalent to the excess of contribution to which the land is subject."—(Sir R. Peel's Speech in the House of Commons, March 19, 1834.)

The theoretical objection to restrictive laws in general, is this, that they may sometimes interfere with the natural direction of capital, and thereby tend to diminish the sum of national profits; still protection is allowable so far as to compensate for any peculiar burdens, either on the land or manufactures. The question of general free trade, on the equitable principles of Mr. Ricardo, would be a fair subject for discussion, if there was a chance of obtaining a trade really free in everything (corn included.) There are certainly some objections to the *present system of corn laws*, pointed out by his lordship, such as a tendency to encourage the employment of English capital in speculating exclusively in foreign corn; also to raise the average price for the whole year (including foreign and English corn) to the *consumer*, more than the average price to the *home grower*. They excite much odium at home and abroad, and therefore afford no safe ground of security or confidence to those interested in their continuance; still an unrestricted free trade in corn would be unjust, both to the landowners and to the present occupiers, who cannot withdraw their capitals. It would be unjust and impolitic; for by opening our ports, under the present circumstances of Europe, we should not obtain a trade in corn *really free*, as the restrictive systems which prevail in France, Spain, Portugal, &c. would not allow of "reciprocity" in the corn trade. France, for instance, permits the exportation of her corn *only until the price reaches 4*9*s per quarter, and then it entirely ceases*; and our own corn would certainly never be admitted into France, unless her prices were such as to indicate scarcity. This is not a free trade; and shall we permit other nations to send their occasional surplus corn here, *whether wanted*

or not, whilst they will never take any of ours, however cheap, unless they may choose to do so? Such a trade in corn would be not only unfair to our growers, but it would subject us, as Mr. Malthus well observes, "to more cruel and distressing variations than the most determined system of prohibitions." (See Malthus' Grounds of an Opinion, &c., page 12 to 15; see also Huskisson's Letter to a Constituent, *passim*.) His lordship is under a great mistake as to the present state of the English farmers, and the effect which the fall of price has had on their capitals. I refer him to the reports of the two last parliamentary committees on agricultural distress, particularly that of August, 1833. His lordship says, "the average is now 40s. per quarter, and the occupiers of the soil have ceased, for many months, to reap the benefit which they were taught to expect from the protecting statute, nevertheless they are in a situation quite as prosperous as when wheat was at 6s." I ask, how can this be? Have the rents, tithes, poor-rates, price of labour, and other outgoings, fallen in proportion? Have all the various commodities required in the consumption of the farmer's household fallen equally? Certainly not; nor will they so for a long time, if ever; and during the transition, the farmers' capital must melt away. Corn is relatively low, and the occupiers of the soil are far from being as prosperous as when wheat was at 6s. The assertion seems like a cruel mockery; it shows, at least, an utter disregard of facts, and a great love of theory. His lordship evidently expects permanent low prices from a repeal of the corn-laws, and yet he thinks the alteration in the value of land will be "exceedingly trifling," and that "the fall of rents will not be great, except in a few cases." Now I ask, did not the doubled war-prices of corn double the rents? and if corn fall permanently to the old prices, must not rents fall to the old standard too?—nay, lower; for as taxation, general and local, cannot fall equally, how can rents be kept up even to the old standard? They are not yet at that standard, but probably 30 or 40 per cent. higher, having been fixed on the basis of 6s per quarter for wheat. I always admired and praised the (supposed) disinterested conduct of those landowners who, like his Lordship, advocate a free-trade in corn; but if they really expected nearly the same rents, and to have corn and the produce of the land cheap at the same time, no such praise is due to them, for then they would gain by it. But this is idle and absurd; for with a free trade, the English grower could not recover from the consumer, as heretofore, by an addition to the price of his produce, the amount of those burdens and taxes, direct and indirect, which affect him peculiarly, as compared with his foreign competitor; and this must, in the end, fall on rent. A little reflection on the nature and causes of rent will show, that if prices fall with only average crops, rents must fall in proportion, unless, indeed, improved methods of tillage are discovered, so as to make the capital and labour applied more effective; and without this, falling rents must be accompanied by the abandonment of the least productive soils. His Lordship thinks that none but the inferior soils will be thrown out of cultivation; and "these lands," he says, "are either unusually sterile, or unusually expensive to cultivate." First, as to sterility, I assert that they afford as much produce as the average returns of the corn-exporting countries, as stated by Mr. Jacob—namely, eightfold. Sterility, therefore, is not the cause why they cannot be kept in tillage. Some of them afforded a profit fifty years ago, with prices as low as at present; such prices will not do now,

because they are become "expensive to cultivate;" but this is entirely the effect of increased, direct and indirect, taxation, which has the same effect as sterility precisely. If these lands were naturally more "expensive to cultivate," or naturally more sterile, than foreign lands; or if the English cultivators possessed less skill or industry than foreigners, then, indeed, the reasoning, and attempted illustration, by a comparison of old expensive machinery about to be superseded by new, would apply to the case; at present it does not, since the best machinery may be made expensive by taxation. The whole of the argument here is a misrepresentation, and unjust towards the owners and cultivators of such lands. If even one class of land should be driven out of tillage by foreign competitors, who carry less weight (of taxation) the owners of it will be unjustly treated. His Lordship seems to think cheap corn, however produced, the *summum bonum*; but it is not so much cheapness, as the ability to purchase, which is desirable. Look at Ireland and Poland. If corn is made cheap by importation, and the demand for labour and wages should fall more than corn, certainly nothing would be gained by it. "The history of the country for the last 170 years clearly proves, on the one hand, that cheapness produced by foreign import is the sure forerunner of scarcity; and, on the other hand, that a steady home supply is the only safe foundation of steady and moderate prices." (Huskisson's Letter to a Constituent; Chichester, 1814, pages 7 and 8). Again (pages 10 and 11), "I admit, that if unlimited foreign import were now again allowed, bread might be a little, though a very little, lower than it now is, for a year or two; but what would follow? The small farmer would be ruined; improvements would every where stand still; inferior lands, now producing corn, would be given up, and return to a state of waste; the home consumption, and brisk demand for all the various articles of the retail trader, which contributed so much, even during the pressure of war, to the prosperity of our towns, especially those which are not connected with manufactures or foreign commerce, would rapidly decline; farming-servants, and all the trades which depend on agriculture for employment, would be thrown out of work; and the necessary consequence would be, that wages would fall more rapidly than the price of bread. Then comes some interruption to the foreign import, coinciding with the decay of agriculture at home, and corn is suddenly forced up again to a famine price." Unlimited free import of foreign corn must certainly cripple the English grower, and all connected with land, under the present weight of taxes. Now, one-third of the whole population are directly employed on the land, and many more are dependent on it for a living; perhaps, altogether, two-fifths of the people; can it then be the interest, the permanent interest, of the monied, manufacturing, and other classes, to ruin such a large portion of the people? The cry of the large manufacturing capitalist for cheap corn means low wages; and it may suit his temporary purpose; but his interests are not so inseparably connected with the welfare of the country as those of the landowner and of agriculture. His Lordship seems to dislike the idea, that "low prices are inconsistent with the national welfare;" but facts are stubborn things; and it seems to be proved that low prices are invariably followed by an increased rate of mortality, and *vice versa*, amongst manufacturing "operatives" as well as agricultural labourers. ("Inquiry into the Expediency of the Existing Restrictions on the Importation of Foreign Corn, 1833, by John Barton). And why should this surprise us? It is written

"Man shall not live by bread alone." Many other things are necessary to him, and as the price of corn, *cæteris paribus*, regulates wages, low corn must make low wages; and the labourers' power to purchase other necessities is less than before: his command over corn is the same; but his command over other things is less; therefore his situation is decidedly worse. I have said that the price of corn, in like circumstances, regulates wages, and that when corn is relatively low, the receiver of wages suffers, because his command over every thing but corn is less. It is certain also, that the price of corn chiefly regulates rent, and when corn is relatively low as compared with other commodities, the receiver of rent must suffer; because, although his command over corn remains the same, yet his command over other things, and especially luxuries, is less than before, and he must suffer proportionally more than the receiver of wages, inasmuch as he spends a smaller proportion of his income on corn, and the produce of land; indeed, the proportional expenditure in these things is, probably, in the *inverse ratio* of income. The landed gentlemen residing in the country may, "as expenders of income, be more benefited by a reduction of the price of provisions, especially of grain, than the other classes of equal fortune residing in, or near, the metropolis," as consumers; but as producers and sellers (through their tenants) they must be still more benefited by a rise in the price of provisions, and especially of grain; for this must cause a rise of rent, and thereby increase, on the whole, their power of purchasing. Why have the landowners of late gone to reside on the continent so much? To get cheap bread and meat? No; but to obtain those comforts which they have a right to expect, and which they always had, until *hoc us pocus* changes of the currency, and other tricks, transferred to the tax-gatherer and mortgagee that portion of the produce of their estates which used to be *their share in the form* of rent. Will cheap bread and meat at home bring them back? No; but falling rents will drive away more of them; all, perhaps, except those Leviathan landlords—" Ces grands propriétaires, qui peuvent se croiser les bras, et qui n'ont d'autre affaire que leurs plaisirs, leurs revenus sont si grands qu'ils excèdent tous les besoins; mais leur nombre est toujours petit comparé à la totalité." (J. B. Say.)

Before we decide whether cheap corn and low prices, in general, would be beneficial to us, we should consider the peculiar state of this country. "During the twenty years beginning with 1794, and ending with 1813, the average price of British corn per quarter was 83s.; during the ten years ending with 1813, 92s.; and during the last five years of the twenty it was 108s. In the course of these twenty years the Government borrowed near 500 millions of real capital, for which, on a rough average, exclusive of the sinking fund, it engaged to pay about 5 per cent. But if corn should fall to 56s. a quarter, and other commodities in proportion, instead of an interest of 5 per cent., the Government would really have to pay an interest of 8, 9, and for the last 200 millions, 10 per cent. This can only be paid by the industrious classes of society and the landlords—that is, by all those whose nominal incomes will vary with the variations in the measure of value. The nominal revenues of this part of society, compared with the average of the last five years (ending 1815) will be diminished one-half; and out of this nominally reduced income they will have to pay the same nominal amount of taxation." (Malthus' Grounds of an Opinion, &c. &c., pages 38 and 39.) "If we consider with what an increased weight the taxes on tea, sugar, malt, &c.,

would in this case bear on the labouring classes of society, and what proportion of their incomes, all the active, industrious, middle orders of the state, as well as the higher orders, must pay in assessed taxes, and the various articles of the customs and excise, the pressure will appear to be almost intolerable. Indeed, if the measure of value were really to fall, as we have supposed, there is great reason to fear that the country would be absolutely unable to continue the payment of the present interest of the national debt. Even if the price of corn be kept up by restrictions to 30s. a quarter, it is certain that the whole of the loans made during the war, will, on an average, be paid at an interest very much higher than they were contracted for, which increased interest can of course only be furnished by the industrious classes of society. I think that very much the largest mass of the people, and particularly the industrious orders of the state, will be more injured than benefited by this measure." (The Opening of the Ports, pages 40 to 42). Whether we open the ports or not, much of the above described suffering must now be our lot; for the "sound currency" people, with their allies and supporters—the vampire-race of loan jobbers and Jew money-dealers have outwitted, and deluded, the owners of real property, to the great injury of the producing classes, and the permanent degradation of the landed and agricultural classes in particular. The interested, selfish, and cunning advocates of free trade amongst the monied, commercial, and manufacturing classes, must be highly delighted to have as an ally a large landed proprietor of his Lordship's high rank and character, but how must they *laugh in their sleeves* at his Lordship's *simplicity* in supposing that "the alteration in the value of land will be *exceedingly trifling*," and that the "fall of rents will not be great, except in a few cases, after a repeal of all Corn Laws!" But the dull perception of the landed and agricultural people is well known, and their patient endurance not less so. Sir Robert Walpole, in his time, compared them to sheep, who always came very quietly to be shorn; the manufacturers, he said, were like pigs, if he touched but a bristle of them they were all in an uproar, and then there was, he said, "more cry than wool!" His Lordship asserts that there exists at this time "general prosperity" amongst the industrious classes; but as he asserts at the same time, that farmers are quite as prosperous now, with wheat at 40s. per quarter as when it was at 64s., which is notoriously unfounded, the former fact is doubtful; indeed how can "general prosperity" exist when so large a body as the agriculturists are going to ruin! The following is a curious passage:—"We have for some years been so much accustomed to hear of the Corn Laws as a sort of national code, that many of us imagine that the system is as old as the common law and the constitution itself, and that it forms, as it were, part and parcel of our political existence; while, on the other hand, the more experienced must be perfectly aware that it is of recent introduction and novel in England." Now what is meant by this? Surely not, that all Corn Laws are of recent introduction and novel in England, as the uninformed reader might suppose; if so, I refer him to a "Compendium of the Laws passed from time to time for regulating and restricting the Importation, Exportation, and Consumption of Foreign Corn, from 1660; printed for Ridgway, 1833." Perhaps it means only that the *present form of Corn Law* is of recent introduction; but, as now worded, it is calculated to mislead the ignorant and unwary, and it ought to be more explicit. I cannot imagine why his Lordship should confine his efforts to ob-

tain free trade in *corn only*, instead of taking up the broad principle of general free trade, on the plea that the capital and industry of the people might be employed to the greatest advantage; this would be more plausible, but would prove, I fear, visionary also. If free trade is to begin with corn, as some propose, justice requires the previous removal of all peculiar burdens on the land; even now it is suffering from unfair competition with untithed, unratred, and comparatively untaxed, Ireland, Canada, Man, and Channel Islands. Should the general good of the nation be found *clearly* to require the partial evil of sacrificing (by free import of corn) a large portion of the land-owners, farmers, and their labourers, be it so; but at present the evil only seems certain, and the expected good, contingent. The adoption of abstract theories frequently disappoints expectation. Should the "stern path of duty" demand the sacrifice, we must submit; but let not his Lordship expect to convince either landlord or farmer that it is for *their good*. By a debtor and creditor account of a farm, as it stood seven years ago, and for the past year, I might easily show that farmers are not now *nearly* "as properous as when wheat was at 6s. per quarter," and might prove the necessity for a large reduction of rent with low prices; but I fear our modern economists pay more attention to theories than to facts and experience. Political economy is a noble science; but our present professors of it seem likely to bring it into disrepute. It was said, I think by one of the ancients, "that there was nothing, however absurd, which had not been asserted and maintained by some one of the philosophers;" this remark seems equally applicable to our present race of *psuedo* philosophers. As one proof, among many, I refer the reader to a whimsical production, called "An Address to the Farmers of the United Kingdom, on the Low Rates of Profit in Agriculture and Trade, 1831," by R. Torrens, Esq., M.P.—a writer, who has occasionally proved himself capable of better things.

I am, Sir, your obedient servant,

TERRÆ FILIUS.

West Sussex, Nov. 24, 1835.

## THE MALT TRADE.

The following is an extract from the Appendix to the Fifteenth Report of the Commissioners of Excise Revenue Inquiry:—

TO SIR HENRY PARNELL, BART., CHAIRMAN.

"Twickenham, Sept. 10.

"MY DEAR SIR,—I am afraid that the evidence which I gave on the question of the malt duty did not seem quite so clear as I could have wished it; and I am fain to trouble you with a few lines in explanation, relying on your goodness to excuse me. The desire of government must, of course, be to levy the tax upon every quarter of malt which is made, and with equal fairness to each trader. For this purpose it has imposed certain restrictions upon the trader, and appointed particular gauges to be taken, whereby the tax or duty is estimated. In despite of these restrictions there is abundant evidence to prove that fraud is frequently practised: and it would be most desirable if such alterations could be made in the manner of charging the duty, that it might be levied with greater certainty to government, and at the same time hold out less inducement to the trader to practise fraud. To obtain this I would at once take off all restrictions in the manner of working grain. I would let the maltster use his own judgment, and if he could, out of one

quarter of barley make two quarters of malt. It cannot matter to government how much the maltster makes of his barley, provided he pays regular duty for every quarter of malt. Besides, the present restrictions have this injurious effect:—the trader does not like to be deprived of the use of his judgment, and be told that he shall only work corn in such or such a manner, although his experience may have pointed out a way to him, by which, without defrauding the revenue, he might procure greater profit to himself. I do not say such is the case, but every man likes to use his own judgment in his own affairs. Take off then all restrictions about liquoring the corn on the floors and so forth, (let the Excise officer still continue to gauge the corn, if that would be any satisfaction,) and let the duty be levied when the malt is made, that is on the last day on which it will be on the kiln, as near as possible to the time of its being thrown off. For this purpose a book might be kept at the malt-house, in which the maltster should be compelled to enter the hour in which he means to throw the malt off the kiln, and let the penalty for his omitting so to do be treble or five times any of the present penalties. The maltster should give twenty-four hours' notice of his intention to throw off the kiln, and during that twenty-four hours the officer should come to gauge the goods—leaving, if the maltster so direct it, a copy of his charge. The allowances to be made for heat and roots must be a matter of consideration, but I should think about twelve per cent. I cannot see any objection to this plan; the government would, it appears to me, ascertain with greater precision the actual quantity of malt made, and the trader would not have opportunities of practising fraud. The room into which the malt would be thrown from the kiln should be adapted to the size of the kiln, and separated from the room where the malt would be stowed away or kept for sale, by a partition of four or five feet in height. The partition should not be higher, as it would inconvenience the labourers in throwing the malt from what might be termed the shifting-room. Care should be taken that no other malt be in the shifting-room, except that thrown from the kiln. Let the penalty for throwing off from the kiln, without such twenty-four hours' notice, or of sprinkling malt already thrown off be five times the amount of any present penalty.

"I must now endeavour to prove that the *present system of charging the duty by different gauges on the floors and in the cistern is incorrect*. The gauges on the floors at one period allow one-third, and at another one-half. I will not say much about those gauges, for in my opinion the maltster can even now work his corn so as to get what increase he wishes; the restrictions only make it a little more difficult. The gauge in the cistern causes the incorrect charge, for the state and quality of the barley and the heat of the atmosphere will affect the rise or swell of the corn when in cistern. I will make the calculation by my cistern. I generally put in steep forty quarters, and the depth of corn, in inches, is twenty-eight; the rise to be in proportion with  $1\frac{1}{2}$  per cent., should be about five inches and six-tenths, whereas it is generally between six and seven inches, and sometimes eight; when it rises eight inches I am charged two quarters, three bushels *more* than I have steeped; and if it only rose five inches six-tenths, I should be charged three bushels *less*. If, in the first case of my cistern rising eight inches, I wished to overcome the extra charge of two quarters three bushels, I should be obliged to force the corn to work on the floors, and strive for increase, which would be injurious to me as the consumer of malt; in the latter case of its only rising five inches six-tenths, the closer I worked the less duty I should have to pay. I will place the calculations in juxta-position that you may be able to see at once the different results, calculating the first rise of my cistern, not at the extreme of eight inches, but the more general one of seven inches, and work accordingly for increase, but still for as small an increase as would be consistent with my interest as a consumer. My next calculation will suppose the cistern to rise five inches six-tenths, and work the corn closely.

*First Calculation, Cistern rising 7 inches.*

In.	Qrs.	In.	Qrs.
25	give	40	35
		give	.....
		Deduct allowance of 17½ per cent.	50 6-8
			9 4-8
			41 2-8
41	2-8	increase within 72 hours to	63
		Deduct one-third	21
			42
63	increase afterwards to		80
		Deduct one half	40
			40
		Cistern charge	41 2-8
		First charge on floors	42
		Second do. do	40
			3/123 2-8

Divided by 3, to make charge for duty... 41 3-4  
or 1 quarter 3-fourths more than was steeped.

*Second Calculation, Cistern rising 5 inches 6-10ths.*

In.	Qrs.	In.	Qrs.
28	give	40	- 33 6-10
		give	.....
		Deduct allowance of 17½ per cent.	48
			39 3-8
39½	increase within 72 hours to		60
		Deduct one third	20
			40
60	increase afterwards to		70
		Deduct one-half	35
			35
		Cistern charge	39 5-8
		First charge on floors	40
		Second do. do	35
			3/114 5-8
			38 5-8

or 1 quarter and 3-eighths less than steeped.

“Surely that calculation proves that the error in the present system is in the cistern charge. It may be true that in the first calculation I got the increase of one quarter and more, and therefore pay no more duty than I have made malt; still it is injurious to me as a consumer, and forces me to work the corn for increase, and which I otherwise would not. This very *compelling* the trader to work for INCREASE appears to hold out some inducement to the not strictly honest to attempt fraud, and even the fair trader must use his best endeavours to convert his quarters of barley into as many possible quarters of malt, leaving the sagacity of Excise-officers to make a correct or erroneous charge. In my case, who work for weight, not increase, the paper which I left on my examination proves that I am overcharged; if my plan were adopted I expect that better malt would be made, and, from want of temptation, less fraud practised; still there are some who would attempt fraud, and in this way, either by throwing the malt from the kiln before the officer came to gauge, or by sprinkling malt already thrown off; in either case heavy penalties should be enforced, and the officers of excise use the greatest vigilance. It must be considered that porter or brown malt is worked in a different manner to pale malt, of which I have been treating, and therefore some alterations would be requisite in this plan, but the system might still be adopted. The present law makes a great distinction between malt, and porter or brown malt.

“I commence malting for the season about the middle of October; and, should you desire it, shall have great pleasure in keeping correct gauges of the corn from the time I steep till the time I throw off the kiln, and send the result to you; at the same time I fear, that the trouble which the perusal of this letter will cause you will make you wish that you had not trusted

to examine me at all; but if on the other hand there should by chance be any idea contained in it, which you may be able to turn to some useful purpose, I shall be amply repaid for writing it, and believe me,

Yours, very truly and faithfully,  
G. B. COLE.

ON DRILLING, OR DEPOSITING THE SEED IN LINES.

(From Sinclair.)

The system of drilling, or placing the seed of grain and other vegetables, in regular rows, by machines invented for that purpose, is no new discovery. It has been practised from time immemorial in the East Indies, and has likewise been long known in Spain. The introduction of that mode of sowing into this country, is justly attributed to the celebrated Tull, who founded it on the erroneous doctrine, that tillage, even without manure, would produce an endless succession of abundant crops. That theory is fortunately abandoned; but the practice of drilling, being now established on sound principles, and sanctioned by experience, is progressively increasing, much to the advantage of the farmer.

In discussing the subject of drilling it is necessary to make a distinction between leguminous, or green, and culmiferous, or grain crops.

DRILLING LEGUMINOUS, OR GREEN CROPS.

There is no question, but that the culture in rows is best calculated for them, because, 1. It carries off the extra moisture in wet soils;—2. it exposes more surface to atmospheric influence, by which the soil is ameliorated;—and 3. it gives an additional opportunity for the vegetation, and the destruction of weeds.

Beans should be drilled, not only on loamy soils, but even on strong and rich clays. When drilled, from the manner in which the plants grow, the pods are placed on the stem from the root upwards, and of course they must derive essential benefit, when filling, by the admission of air through the open space left between the drills. The soil is likewise meliorated by the hoeing, and weeds are effectually destroyed.

Drilling for turnips is likewise greatly to be preferred. The superior facility afforded by the drill culture, of simplifying and expediting hand labour; the advantages of applying recent and moist manure directly to the seed,—the more regular and correct adjustment of the number of plants to be left on a given space; and the more equal admission and circulation of air among the plants, entitle the drill system to a decided preference.

Potatoes, also, ought to be planted in rows by all farmers, whatever plan gardeners or cottagers, on small patches, may adopt. There ought to be a distance of from 24 to 30 or even 36 inches between each row, so that the fibres which nourish the plants, may not be disturbed by the hoeing, for if they are injured, the stems will be puny, and the bulbs few and small. Drilling is greatly preferable to dibbling potatoes, as appeared from an experiment, expressly made to ascertain the advantage of each mode of culture.

The drilling of carrots has not been found to answer in Suffolk; but it has succeeded in the experience of Mr. Butterworth and others, in Scotland, and of M. Chateaubieux, in Switzerland, with very wide intervals. This useful plant can thus be cultivated with profit, on soils where otherwise it would hardly be practicable; the drills furnishing an artificial depth of soil, in which this root can be raised. Four-

teen inches between the rows is recommended as the proper distance.

In regard to peas, whether sown with a mixture of beans, or not, drilling is to be preferred to the broad cast system, though the hoeing is attended with difficulty, owing to the plant falling so early down upon the surface. The rows ought to be from 20 to 27 inches asunder, and the intervals repeatedly hand-hoed. Any weeds that may grow among the peas may be pulled up by the hand. It has been found that peas properly drilled, and carefully hoed, were at harvest, nearly as clean as the beds of a garden, and the produce, both of grain and of haulm, quite satisfactory; whereas the head-lands, which had been sown broad-cast, had a miserable crop of grain, thinly scattered among a multitude of annual weeds, and scarcely worth reaping.

As to tares, they are sometimes drilled, particularly when sown in spring, but broad-cast is the more general practice, when sown in autumn. When drilled the rows should be fifteen inches apart; and in strong tenacious clays, this crop when repeatedly hand hoed, is said, in dry seasons, to be more profitable than beans.

#### DRILLING CULMIFEROUS OR CORN CROPS; WITH OBSERVATIONS ON THE ROW CULTURE, FOR CROPS OF GRAIN.

The question, whether it is most expedient or profitable, to raise culmiferous crops, according to the broad cast, or drilled system, has agitated the agricultural world for a number of years; and as it is a point, respecting which there still exists a great diversity of opinion, it may be proper here to detail the arguments on both sides, that the reader may be enabled to form a decided opinion, which ought generally to be preferred; and in what particular cases, either the row, or the broad-cast system of culture, ought to be adopted.

The arguments against drilling are, 1. That it is not likely to be profitable on a small scale, on account of the expense of the machinery for the different operations of sowing, hoeing, &c.—2. That these operations must often occasion delays, incompatible with the hurry of an extensive autumnal or spring sowing, at least in wet seasons, and on wet soils, however little it may be felt in dry seasons, and on dry soils;—3. That it is not so well calculated for steep lands;—and, 4. That the grain is more liable to be shaken by winds, and the harvest to be later on drilled fields, than on those which are sown broad cast, and, consequently, that it is not so well calculated for a windy and a northern climate.

Some other objections were formerly urged against drilling, which the recent improvements in the system have effectually removed. For instance, it was anciently the practice to earth up the plants, the consequence of which was, that in rich soils, the vigour of the soil was exhausted on the stems or foliage instead of the fruit; and though the straw was strong and abundant, the grain was often defective in quality, or greatly diminished in quantity; whereas, now, it is a maxim in the school of Holkham, "That white straw crops will be injured, if earthed up upon any soil."

It is likewise urged, that it might not be practicable in many districts, to find a sufficient number of labourers to hoe the drills, were all the crops on a farm to be subjected to that process. But in the present state of the country, with an overflowing, and unemployed population, a new source of occupation to the peasantry would be most desirable, provided their employers were remunerated for the expenses they incurred; and where there is a

scarcity of male labourers, women and boys have, in many agricultural districts, as in Gloucestershire, been taught the art, and have been found most expert at hoeing.

It has further been urged, against the use of the drill machine, that where seed has been steeped, and encrusted with lime, as a preventive of the smut, the lime destroys the brushes, and impedes the regular delivery of the seed. But this objection is easily removed, by using crops, instead of brushes, or by steeping the seed in a solution of the sulphate of copper, in a manner to be afterwards described, in treating of the diseases of grain, (see the *Addenda*); and the seed, in that case, might be sown in a few hours after the solution has been applied, without lime, and with a certainty of preventing smut.

It is also contended, that the drill machine does not answer where the soil is too full of small stones, which may prevent the coulters from sinking to proper depth, so that the seed may not be sufficiently covered, to produce an abundant crop; but Mr. Wilkie of Wimpole maintains that there is no difficulty in drilling stoney land provided a proper drill machine called "a clever drill" is made use of. The levers can be "weighted" at pleasure, and thus will answer in almost any soil, however stony, because that sort of soil is generally loose below, and better to drill on than even heavy cloddy land. The seed also will stand a better chance of being covered.

The introduction of the drill system is, by many of the most distinguished agriculturists, considered to be the most important of all modern improvements, and to be well entitled to universal adoption. It is principally recommended on the following grounds: 1. That the broad cast system is a less perfect, and a less economical mode of cultivation, than that of drilling, for the seed can neither be deposited in the soil, with the same exactness in regard to depth, regularity, or proportion, nor be so placed, that the crop can afterwards be improved in its progress to maturity;—2. That in light soils drilling has the important advantage of giving the grain a good hold of the ground, and of giving all the seed the same depth of soil, by which the frost is prevented from throwing out the plants in spring, or the wind from loosening the roots, after the stem gets high, or when the ear is filling;—3. That the plants of wheat in drills protect each other through the winter, and hence, that a field in drills will be more forward in spring, and sooner ready at harvest, than a field sown broad-cast;—4. That by the improved practices in drilling, the use of manures, (rape cakes in particular), is both encouraged and economized, so as to diminish the quantity necessary, and to increase its powers, by bringing it into immediate contact with the plant; and that a heavy crop of drilled corn, where the weeds are thoroughly destroyed, will be found much less injurious to the fertility of the soil, though raised with less manure, than the same crop grown broadcast, with a greater quantity of manure, but encumbered with weeds;—5. That it gives an opportunity for cleansing the ground, even when the crop is growing;—of completely extirpating annual weeds;—of checking the growth of root weeds;—and of preventing weeds in general, from being injurious to the crop;—6. That if the land is not hoed, but hand-weeded, less damage will be done to the crop, by the weeder's feet passing between the rows of plants, than by treading upon them, as must inevitably be the case, when working promiscuously over the ground;—7. That the progress of the

grain, after the sower has worked upon the soil, is attended with the most beneficial effects:—3. That drilling is peculiarly calculated for inferior soils, and brings their produce more nearly on a footing with that of fertile land, than could otherwise be obtained;—9. That the pulverization of the soil, between the rows of autumn or winter-sown wheat, is of the greatest benefit to the clover seeds sown in spring, and that the admission of air between the rows is of use to the corn crops, as well as to the grass seeds sown with it;—10. That drilled crops of white corn, from the greater strength of their straw, are less apt to lodge, or to be beaten down in wet seasons; and are much less subject to other casualties, in particular to the diseases which wheat is unfortunately liable;—11. That the expense of cutting down a drilled crop in harvest is uniformly less than one which is sown broad-cast since three reapers will do as much work in the former case, as four in the latter;—12. That drilled crops are more equal in growth, and that in general they produce a cleaner, and more regular sample for the market;—13. That drill crops can be harvested to more advantage, and sooner conveyed to the barn or to the corn-yard, than if they had been produced under the broad-cast system, in which less attention is paid to the destruction of weeds;—14. That drilling may be of use in regard to the grub, and other vermin, for that the hoeing in spring, the treading of the hoers, and the stirring of the soil by the hoes, must give a check to their depredations.

In regard to any saving of seed, which by some is considered an advantage, Mr. Coke of Holkham is decidedly of opinion, that such an idea is founded on erroneous principles, and that any economy of that sort ought not to be attempted. It is indeed of use to have the roots matted together, provided that there is substance enough in the soil to nourish the plants; and it is found, that wheat thrives best on a firm and compact bottom, which prevents the roots from being long and straggling.

Innumerable instances might be brought forward, of heavy crops having been produced under the drill system, by those who have bestowed much care in trying the experiment; and it has often answered, even on a greater scale, when properly executed. But its success must depend upon the intelligence, attention, perseverance and capital of the farmer.

As it has been carried to the highest perfection, and cultivated to the greatest extent on the farm and on the estates of that distinguished agriculturist, Mr. Coke, of Holkham, it may be proper to give a short account of his practice. He uses the Rev. Mr. Cooke's drill, which is drawn by a single horse, and sows six rows at a time, and an acre in an hour. His wheat he sows at nine inches asunder, his barley at six inches three quarters. The quantity of seed which he sows per acre, is three bushels of barley, and six of oats. In regard to wheat, the average quantity which he prefers, is four bushels per acre. By depositing such a quantity of seed, there is no occasion to earth up the plants, for the sake of promoting tillering. On rich soils, it is the practice to draw the drills from north to south, because the rays of the sun when in his greatest altitude striking directly between the rows of corn have a powerful effect in strengthening the straw, and by absorbing the damp from the earth become a powerful auxiliary in preventing mildew. On poor soils, on the other hand, the lines should be drawn from east to west, if the nature of the ground will admit of that plan being followed.—Cooke's fixed drill-harrow is used once in spring, the hand-hoe is used twice, the land

is cleared of weeds, but the soil is not earthed up, nor accumulated against the corn. The hoeings cost about twenty pence each per acre. The largeness of the crops, particularly of barley and oats, raised even on poor land, under this system, is hardly to be credited; and they are sometimes also of a superior quality.

## RESULTS OF THE SPAYING OF COWS.

By M. LEVRAT.

(From the *Veterinarian*.)

The VETERINARIAN for August last contains a memoir on the castration of cows, accompanied by several cases. These cases, however, were drawn up a very little while after the operation, and could only indicate the immediate effects of it. It may be useful, now that more than a year has passed, to describe the present state of the animals.

The cow which was operated on in June 1833, yields, when she is at grass, the same quantity of milk that she gave on the preceding year.

The second, operated upon in November 1833, gives when at grass, eleven *pots* (qy. quarts) of milk.

The third, spayed in December 1834, yields, when at grass seven *pots* and a half.

The fourth, operated upon in March 1834, gives more than nine *pots*. This cow, that was mischievous, and difficult to milk, seemed to be cured of her vicious habits by the operation; but she soon became as bad as ever, and is obliged to be hobbled in order to be milked.

Two of these cows shewed symptoms of œstrum as before. In one of them it was not periodical, as in other cows; the other, that had, as already related, a large yellow mass in the place of the left ovary, has been at heat several times. She has gone to the bull, which has quieted her for awhile, but the heat has returned at irregular intervals.

May not these facts lead us to believe, that the ovaries have only a secondary influence on the development of the œstrum, and that the uterus exerts the principal influence in the production of it.

In neither the one nor the other of these cows did the milk undergo any alteration in quantity or quality during the period of œstrum; while in cows that have not been spayed there is always a change to a greater or less degree.

As to the quality of the milk from cows that have been spayed, M. Francillon says, that it yields more and better cream than before.

The cow of M. Perdonnet, operated on in January 1834, continues to give when at grass, the same quantity of milk which she did at the time of the operation; but the milk, which had lost its cream for a few months after the operation, is now become richer than it was before. She has been at heat once only, and her milk did not undergo any change at that time.

*Rec. Sept. 1835.*

The Sussex Ox, bred by Mr. J. Fuller, lately of Mays Farm, and exhibited by his son, Mr. P. Fuller of Loughton, which obtained the first premium in class 1, at the Lewes Fat Stock Show, on Tuesday last, attracted the greatest attention, and was universally admired for the beauty of its symmetry. It was purchased by Mr. Henry Myrtle, butcher, of St. James's Street, Brighton.

## THOUGHTS ON THE EXTENSION OF DRAINING.

(From the Quarterly Journal of Agriculture.)

There is perhaps no circumstance which so obtrusively forces itself on the attention of the agriculturist as he travels along the highways of Scotland as the neglect of draining. In arable as well as in pastoral districts, among mountains as well as on the plains, this neglect is very striking. Many a field under the plough presents dark spots or blotches on the face of its acclivities, or still darker bands or patches on its more level parts; and many more fields in pasture show unequivocal symptoms of hidden water by the growth of semi-aquatic plants which varigate their surfaces in lines and clumps. Perhaps it would be too strong to assert that there is not a thoroughly drained *farm* in all Scotland, but there is no hazard in the assertion that a thoroughly drained *parish* does not exist in it. Startling as this intelligence must be to the agriculturists of England and Ireland who have long been accustomed to hear the husbandry of Scotland lauded as the most perfect system of agriculture in the world, it is no news to many farmers in Scotland. Full well they know that much improvement has yet to be effected by draining, and that in its train alone follows every other improvement. Far be it from our intention to depreciate Scottish agriculture. It is the most perfect system in existence. And it has made Scotland to be admired and envied by the world. Much of this perfection and state of admiration and envy in which Scotland is held must be attributed to draining partial as it has been. Though silent and secret in its operations, like wholesome medicine, draining has renovated the constitution of the soil, and suffused a healthful bloom over the face of the country. But since partial draining has effected such great and pleasing effects, what may not be expected for Scotland from thorough draining! The humidity and variability of the climate, operating upon the inferior soil which occupies a large surface of this country, must always render draining a desirable improvement. Indeed, with these pre-existing evils, it is difficult to conceive that period when draining should be overdone in Scotland. It is probably impossible, even by draining, entirely to counteract the effects of these never ceasing evils, but it is not impossible to ameliorate a humid climate and a bad soil by judicious draining. With draining, as hitherto executed, the climate is much drier and milder than it was half a century ago. Agues and miasmata are diseases now unknown to our rural population. The recent mildness of the winters, the absence of frosts and snows of long duration, and the presence of hibernal vegetation, indicate less ability in the soil to emit those dank exhalations which return in rain and snow from the atmosphere in its changeful flittings over our narrow island. This theory is at least as philosophical as the ascription of our gentle winters to the abruption of the polar ice. Those vast fields and mountains of ice may no doubt affect our climate generally with their frigid influence, and if that influence is commanding, it should be strongly felt in the ensuing winter, for the whale ships have this summer been unable to penetrate their barriers. But changes of climate are often partial, as may be witnessed in situations which are exposed to or sheltered from particular aspects. There is therefore no unreasonableness in ascribing even a general change of climate to extended

and simultaneous ameliorations of soil over a whole country. Were draining extended to its utmost pitch of ability, it is impossible to anticipate the exact degree of favourable change which the climate would experience; although the obvious connexion existing between the climate and the soil, would warrant the anticipation of an important change. But which of them possesses a prevailing influence? The climate certainly influences the soil. The humid climate of Scotland renders the soil humid. And the dry climate of Egypt doubtless renders its soil dry. But is the influence reciprocal? The influence in this case as cause and effect is not so obvious. But, at least, does not a dry soil produce a less humid climate? We say so, and the general belief so tends. May not the excess in drought of the Egyptian soil and of the great sandy deserts in Africa, prevent rain falling in those countries? We say so, and the fact can be scientifically explained. No farther proof, then, is required to induce to the belief, that were draining prosecuted till the soil of Scotland were rendered dry, the climate of Scotland would be less humid by the change. At least this much may be safely asserted, that effectual draining would render a humid climate less noxious to every kind of crop; and such degree of security ought to be a sufficient inducement to drain extensively and effectually. But an examination into the manner that humidity affects the soil, will enable us to ascertain how draining first ameliorates the soil and then the climate.

When rain falls on the ground, part of it runs off into ditches and thence into rivers; but the greater part is absorbed. Plants consume much of this absorbed water; some of it descends into the bowels of the earth, and some only as far as the superior strata of alluvium and rock, by which it is repulsed to a lower level, where it afterwards finds its way to the air in springs through the cultivated soil, and thence into rivers; but a greater proportion of it only descends as far as the subsoil, which, if impervious, retains it. That which makes its appearance in springs is generally easily led away in drains made for the purpose. Much skill and capital have been expended in this species of draining in this country. The benefits are, that few *springs* are now to be seen on cultivated land, and it is likely those benefits will be permanent. What flows into rivers is ready to be evaporated again into the atmosphere from the ocean, and returned to the earth in rain; but that which is retained under the soil on impervious layers of earth remains to effect incalculable mischief. While hidden water remains, manure, whether putrescent or caustic, can impart no fertility to the soil; the plough, the harrow, and even the roller, cannot pulverize it into a fine mould; the grass can contain no nutriment for live stock, as the finer sorts disappear, and their places are usurped by coarse aquatic plants; the stock can never receive a hearty meal of grass or straw from land in such a state; they are always hungry and dissatisfied, and of course remain in low condition; the trees acquire a hard bark, stiffened branches, and soon become the prey of numerous parasites; the roads in the neighbourhood are constantly soft and rutted; the ditches and furrows are either plashy or like a sponge full of water,—suitable receptacles for the new, and the frog; the circumambient air is always damp and chilly, and from early autumn to late in spring the raw hoar-frosts meets the face like a wet cloth morning and evening; in winter the



frosts incrusts every furrow and plant with ice, not strong enough to bear one's weight, but just weak enough to give way to every step, while the snow lies lurking in crevices behind the sun till late in spring,—fit feeding ground of the woodcock and snipe; and in summer mosquitoes, green flies, midges, gnats, and gadflies torment the cattle, the labourer and his horses from morning to night, whilst the sheep get scalded heads and eaten up by maggots during the hot blinks of sunshine. Would that this were an exaggerated picture! It may be seen in part, if not in whole, in every parish in Scotland. Look in the mountainous region of the Highlands, into the extensive sheep walks of the Lowlands, into the Lammermuirs, Pentlands, Ochils, Campsies, and Sidlaws, nay, into the cultivated plains of every county, and part of this picture will somewhere present itself to the view. Look into every one of the counties of Scotland, and see the many thousands of acres which require draining on every hand, and which are lying in the *dead throw* for want of it. Even in the choicest spots—for the richest portions are but spots in size in this favoured land—favoured by Providence in the industry, skill, and prudence of its inhabitants—draining would act as a charm. The Carse of Gowrie is flooded with surface water in winter, and so is Berwickshire; and in East Lothian which contains a great proportion of naturally dry and rich soils, the stronger land will scarcely grow red clover for want of draining. The lands lying on both sides of all the roads leading from Edinburgh to Glasgow, to Ayr, to Dumfries, to Kelso, to Perth require extensive draining. In a word we repeat, that the eye cannot be turned round in any direction without falling upon land that would be greatly improved in fertility by effectual draining. This sweeping accusation could be easily substantiated by many particular references; and its vindication rests on the incalculable loss which agriculturists incur by neglecting thorough draining.

After reflecting on these statements, it will be acknowledged that draining has not been prosecuted in this country even to the extent which it might be, and far less to the extent that would amply repay its cost. The cost would no doubt be considerable; but if it were executed in a substantial manner, we maintain that the increase to the first crop would repay the whole expense to the farmer, be that what it may. But the tenant ought not in justice to bear the whole expense of such a fundamental improvement of the land. The landlord should at least share alike with him, and lessen the burden to each.

The kind of draining which would be most effectual, is not difficult to choose. The greatest obstacle to fertility, is the stagnant water spread extensively upon a retentive subsoil; and the only kind of draining which is efficacious for its removal, is not the very deep and distantly placed drains, which are admirably suited to the removal of springs or *spouts*, as they are called, whether superficial or deeply hidden, but the more shallow drain frequently repeated, for *deep drains at considerable distances cannot draw water at those distances from impervious subsoils*. The depth and the distances between the drains, depend entirely on the imperviousness of the subsoil. But it is easy to fix the *minimum* depth. No kind of drain, on any pretext, ought to have a *smaller depth of stones than eighteen inches* nor a *smaller depth of earth above them than one foot*, so that *no drain should be less than thirty inches in depth*, nor need the *maximum* of

shallow drains exceed *three feet*. The width should allow a man to work freely in them. The distance between the drains has been fixed at the breadth of a ridge, that is in every furrow. Where broad ridges are used in clay land, such as in the Carse of Gowrie, the distance is often too great to do much good. Where it does not exceed fifteen or eighteen feet, according to the tenacity of the subsoil, the distances may be considered proper. Much has been urged in favour of making the drains, up and down the declivity. We confess we see no particular charm in the perpendicular position, on the contrary, we see many objections to it. We hold it to be a maxim in draining, that rapid descents of water in drains is incompatible with the maintenance of good workmanship. Water descending rapidly any where gutters the ground, and so it will in any drain. Besides, the perpendicular position is not the most favourable for intercepting the water in its descent; because it is very rare that a declivity presents only one declination, it is almost always attended with two, one up and down, and another from side to side in the horizontal direction. Down such a declivity the water will take a diagonal direction, guided by the degree of the lateral declination. Now, it is as obvious as any demonstration in dynamics, that drains placed in parallel lines declining down the face of a declivity, having a twofold declination, that is diagonally, will afford a much more easy passage for a current of water, than any other direction. The more easy the egress of the water, the more gently will it run away, and the more effectually will it dry the land. The only reason for placing drains up and down is, that the furrows are so placed; but it would be better to make the ridge run diagonally, than allow water to run quickly in a drain in a perpendicular direction. Small round stones, or broken stones, should in every case be preferred to tiles, and they should be carefully placed by the hand. It is only where stones cannot be obtained, but at great labour and expense that tiles should be used. Many tiles which we have seen in this country are not trust-worthy. They are either too much or too little burnt. We have seen a night's frost break the whole tiles laid down for a drain. Luckily they were broken before they were used; but why are such spongy tiles sold to deceive the public? There is no doubt that many drains have already been formed with such tiles, for the disposal of which, the tile-maker ought to be amerced in heavy damages. Good tiles will last for ages. Tiles have been taken up in Lincolnshire whose age is unknown. Tiles should never be laid in clay land without soles, for in time they will assuredly sink into it. Stones should, if possible to be obtained, be always placed above tiles to retain them in their places, and the remainder of the drain filled with stones, dried peats, gravel, or such like porous substance, especially in clay land, otherwise the clay will bind over the tiles in a few years.

This species of draining possesses the advantage of being applicable to every kind of soil; and it will certainly relieve any soil which is afflicted with stagnant surface water. If generally practised, it would effectually drain the whole country, and remove the chief obstacle that exists to perfect fertility of the soil. Were the soil thus fertilised the produce of the country, whether in corn, straw, green crops, or pasturage, would be increased manifold. Wheat and live-stock would then be so abundant, and of course cheap, that every labourer would be enabled to consume wheaten-

bread and butcher-meat; and constant employment be provided for agricultural labourers for many years. Nor is such a national scheme of improvement chimerical. Many proprietors possess the means, many farmers have yet the means of accomplishing to in their estates and farms, and those who have not, should be assisted by the state. Much public money it is feared, is thrown away on doubtful expedients, and much applied to pernicious purposes, which if employed in draining the land, would increase its resources beyond credibility. One sheep additional kept, or one quarter of corn more raised, on an acre would add millions a year to the wealth of the country.

### ADDRESS TO THE LANDOWNERS OF ENGLAND ON AGRICULTURAL DISTRESS AND ITS REMEDY.

MY LORDS AND GENTLEMEN,—The period has now arrived when apathy is absolute wickedness, and when neglect of the duty you owe to your countrymen is at once both hazardous and dangerous. The fact can no longer be concealed from you or from me, that a crisis is at hand; your interest—nay, your very existence as men of property and standing, is at stake; you are hemmed in on all sides, the rich and overgrown manufacturer on the one part, and the impoverished farmer on the other; and, in fine, all England has its eyes upon you, to see what line of conduct you will adopt in this emergency.

The farmers, who have been the stay and safeguard of this nation; whose loyalty has been proverbial, and whose adherence to the religion, laws, and customs of their country have in evil times rendered them the scoff of every traitor; who have supported you at all times to a man, when they knew well, often, that all you aimed at was political ambition; who have, when called upon, filled the ranks of your yeomanry troops for the protection of the country, and this at much expense, and without a murmur; in fact, who have stood by you constantly, upheld you against all sedition and rebellion, and were ever your best, warmest, and most devoted friends,—these men, I now tell you, if you do not already know it well, are on the point of individual bankruptcy and universal ruin.

Year after year the crisis has been approaching them nearer and nearer; the prospect, instead of brightening, is gloomier than ever; they have been *hoping against hope*; they have beheld their neighbours, one by one, sinking into despair and beggary, and have felt ruin at their gates and their very hearths; their capital has sunk to nothing; their comforts have become lessened; their labour, their toil, their anxiety, their studied and niggardly economy, has availed them nothing;—yet still they have continued their trust in *you*, their hereditary protectors; they have relied on *you* to the latest moment, and have ever carefully abstained from all illegal and improper combinations, and from all acts of outrage and violence.

Yet with what good reason might they rise up to a man against *you*, the landowners of England, and accuse you, openly and before God, for all their miseries and misfortunes?

They know well that for centuries you and your ancestors have had the privilege (which they do not call in question) of retaining and possessing the soil, and they think you owe them, at least, gratitude for their care in tilling it under you. They know, moreover, that for centuries you have had almost irre-

sponsible legislative power—at least, have been but little opposed—in all your political measures; and seeing therefore that, notwithstanding this, you have been unable to protect them and yourselves, they are now wishful for you to try some *new plan*, independent of legislature, and which shall come at once, and in a direct manner, from *your* pockets into *theirs*!

Seeing, also, that the manufacturing interest has arisen, prospered, flourished, and obtained power, without your assistance at all—nay, almost in direct opposition to your wishes; and that our great merchants have become as princes of the earth, with but little of your aid, and chiefly by their own worth and enterprise, they are ready to accuse you (knowing they are themselves not inferior in industry or honesty either to the manufacturer or the merchant) at once of wilful blindness, or, what is equally hurtful, of wilful ignorance, in managing and conducting their affairs.

If they had been a rash, unthinking, extravagant, and speculative class of men, they might in this case have gained conviction by experience, and have been led to reproach *themselves* for their present degradation and misfortune. But the fact is, my lords and gentlemen, that there is no tenantry in the world more exemplary than that over which you have the honour to possess power. They are a class of people who are to the utmost degree careful and economical in all their expenditure; they can accuse themselves of no extravagance in their domestic arrangements; their houses are frugally and humbly furnished; they labour themselves, and their wives, their sons, and their daughters are likewise made serviceable in all farming or household labours; they never give rich banquets, nor attend theatres, nor ride about in chariots, with rich liveries, like their upstart neighbours, the manufacturers. Nay, on the other hand, they are miserably poor—they have lost all heart and spirit; in spite of all their efforts, and their desire *merely* to live, they are unable any longer to maintain their ground, and are yearly in dread of a workhouse or a prison.

This, gentlemen, is no exaggerated statement; *it is the truth, and nothing but the truth*. I call upon you, then, to inform the British nation, from your places in the House of Peers or Commons, how it is that the farmers, an integral interest of this realm, are thus rapidly retrograding to the position of the mere *husbandman*; whilst the manufacturer is wallowing in wealth, and revelling in the greatest abundance!

Each year the King's speech (which is, in truth, the Minister's speech), congratulates the country on the manufacturer, and laments the poverty of the agriculturist. Whig, Whig-Radical—Tory, or Ultra-Tory Administration, it is all the same in this respect. Yet, year after year, the evil remains without a remedy. You gain your seats in the House of Commons by the sole efforts of the farmer, and yet, with an insolent effrontery (which in this day will no longer answer), you wade through the session in defiance of him; offer him no apology for blighting his hopes and thwarting his desires; institute no inquiry into the cause of his distresses, even though every other minor subject is eagerly canvassed, and innumerable expensive commissions are allowed, for no earthly purpose whatever, save of impoverishing the nation; and what is worst of all, you openly mock at his entreaties, and insult his poverty with contumely and scorn.

Suffer me then to instruct you, as briefly as my present letter will allow, on the present possible means, of *immediately* improving the condition of the farmer. I will not attempt to beat about the bush,

but will endeavour to strike home to you at once. I will canvass no merely political gew-gaw, which you get up for election purposes solely, but will inform you, if you will listen with patience, of some useful but unwelcome and unpalatable truths, which it will do you good to hear and attend to. At the same time, allow me to premise, that I for one have no interest whatsoever in the present discussion: I never received one farthing of profit from any one of you, nor from the farmer either. What I do now is faithfully and humbly in the love and service of my countrymen.

I may premise then, generally, that one of the chief and pressing causes of the farmers' present distress, originates in the extremely low and unremunerating price of corn. The production is clearly too great for the consumption. This may arise partly from the circumstance, that during the high war-prices, great quantities of the old primitive grasses, *i. e.* the old pastures, were hastily ploughed up, in order to allow the farmer the highest scale of profits. Wheat was the order of the day, and every thing was sacrificed to its growth. The consequence is, that *now*, when corn is too abundant and therefore low in price, and when grass land would be far more profitable, the farmer feels unable to remedy himself, for he does not possess the capital, and therefore cannot afford the number of years, necessary to allow his lands this necessary change of produce.

Great quantities of land were also then enclosed; and in addition to this, the increased skill of the farmer has enabled it to produce an infinitely greater abundance than formerly. Yet when we consider the increased number of manufacturing operatives in large towns—their increased wages—and consequently their increased demand for the necessaries of life, this ought to be no argument; but it is to be feared (though Poulett Thompson refused the inquiry) that an immense quantity of corn is yearly imported into this country from Guernsey, Jersey, the Isle of Man, and other places.

Be it remembered also, that the English farmer has but a very small chance of contending with the *Irish* and the *Scotch* farmer in the market.

In these other countries labour is extremely cheap, and taxes of the various kinds that press on land much smaller. A Scottish labourer but seldom sits down to flesh meat; his chief food is milk and oatmeal; he uses but little of beef, bacon, cheese, ale, tea, cakes, and other little luxuries, which the poor of England think necessary; poor rates, moreover, are next to nothing (and then do not fall in a direct way), highway rates are small; and, altogether, his yearly expenses (I mean such as are of a *necessary* kind), are but one-half those of the English farmer. The same argument applies to the Irish farmer. Thus it is that he can afford to sell infinitely cheaper than we can, and is better remunerated by small prices, or at least is better able to bear a cheap market, than the English farmer.

The poor laws in England, again, under which Scotland and Ireland do not suffer, were here introduced by Queen Elizabeth, for the protection of the sick, the aged, the idiot, the blind, and deformed, but have in latter years been perverted to the most nefarious and disgraceful purposes.

The improvement of roads in England has also entailed a greater highway rate.—Again, the diffusion of luxury—among all classes—force the farmer, do as he will, into an increase of his expenditure.

Take the question then as you will, the farmer's burthen is every way increased—his power of meeting the landlord, at present prices, is every way dimin-

ished—and year by year his prospects, instead of improving, become darker and more alarming.

One fact must ever be borne in mind. *Fifty years ago*—(before the French war, and all those other lug-bears, which the speculative writers and the House of Commons' theorists conjure up to mystify and perplex us) corn was selling at a *higher price* than *now*—for then it was in the market at above 40s.

Yet at the present moment our national debt has got an increase of 1,000,000,—our rates of different descriptions are *trebled*,—and the rent of land is at least *double*. Can it be wondered then that the farmer is starving, and his prospects in ruin? Let this state of things go on, and England must sink into the dust before other nations—her farmers will become common labourers under certain great masters—the infamous vassalage and villainage system will be renewed—the villages will all sink into decay, and only two orders will exist in this once happy country, *the very rich, and the very poor*. But, my lords and gentlemen, this state of things shall never be, if England is but true to herself, and the farmers select for themselves proper champions. You must remember, the truth must fall upon you in your privacies, that intellect and civilization are rapidly progressing; that the mists are falling from the eyes of the ignorant all over the world, and that man is now awakening to a consciousness of his own individual dignity and majesty. Can you trample him into the dust then, and he not rebel against it? *Mere* politicians, whether of one set or the other of the aristocracy, may blind us for a season; may amuse us at an election; may delude us with fictitious hopes; but believe me, the day is coming when truth and justice are to be scrutinized, and when your conduct to the poor farmer will be eagerly looked into.

You may hoodwink the farmer, by long and tedious discussions which amount to nothing—you may make long speeches and hard divisions on a malt tax, which, after all, is but a *local* good, and, at any rate more beneficial to the landlord than the tenant—with long poor law inquiries, which are all false and futile save in their glaring cruelty and injustice—with long arguments about the salvation which must accrue to the farmer, from a silver currency, which is but the crotchet of one man—and you may *talk*, (why not *act*?) loudly about the benefit which must result from an agricultural inquiry, and also institute agricultural associations which also are more for the landlord's benefit than for the farmer's; but, after all this delusion is past, the truth *must* come out—aye, and it will be sounded in your ears as with a voice of thunder—“EVERY LANDLORD IN ENGLAND MUST REDUCE HIS RENTS!” “That is the question!” That is the farmer's panacea—his salvation from ruin, and the only boon which the landlord can offer him. This it is which will at once relieve his wants—afford him that capital of which he has been plundered—allow him to pay his rents and taxes with greater ease—give him equality of comfort and wealth with the tradesman—and make the farmer, as hitherto, the boast and pride of this great country.

Your election promises are as nothing—words are at all times easy offerings—but it is by your deeds, as I before hinted, that the electors must judge of you. In fine, if they will take the advice of a well-wisher, they will only vote at the next election for that man who promises in the first place to reduce his rents, and afterwards to exert himself in the House of Commons for a commission to enquire and examine into the lands of Great Britain, towards a just and equitable rental being established.

Again, it is not by returning a 5 per cent. or a 10 per cent. discount on your land, that good can be done, which you can withdraw as you please, either from pique or avarice, and which at the best is but a crumb to a hungry man;—no, it is by meeting the farmer half way, and joining with him in an honest manner, in the losses arising from depreciation of produce. This is but justice, and what the farmer has a right to demand. But you will ask, how is this great sacrifice to be borne?

I answer at once, *by reducing your expenses*; by moderating those terrific extravagances and consuming luxuries, which a London residence, and London prodigality, with all your continental abominations entail upon you; by reducing the superabundance of our overgrown establishments, your servants, your horses, and your chariots; by ceasing to vie with one another in the madness of your pleasures and debaucheries; by limiting altogether your rich wines and gorgeous entertainments, your blandishments of theatres, operas, hells, clubs, race courses, and all those other monstrous luxuries, to which your incomes give you no right—and which, be it ever distinctly borne in mind, are wrung from the sweating forehead and agonizing privations of your impoverished tenants.

If you will not do this, the work of beggary and destitution must continue. I trust, however, that wisdom and truth will influence you; or if you refuse, in conclusion, I warn you, that every market town in England shall have a FARMERS' UNION. They must all link together under one central head, they must be organized and united together, (and when did oppression *not* produce union?)—they must all to a man give up their farms, and throw themselves on their country—and they must heard injustice in his den! Such things I fervently hope may never be; *you* can hinder it.

Finally, my lords and gentlemen, ponder well on these things, and believe me your firm friend and faithful servant,  
PHILO-AGRICOLA.

Guisbrough, Yorkshire, Nov. 16, 1835.

### COPY OF A LETTER ADDRESSED TO THE CHAIRMAN OF THE CAM- BRIDGESHIRE FARMERS' ASSO- CIATION, AND OF HIS REPLY.

Kirby Hall, Boroughbridge, Oct. 17.

Sir,—As a member of the Boroughbridge Agricultural Association, I take the liberty of addressing you, and hope that, though an utter stranger, you will consider me justified by the importance of my subject.

The society to which I belong has, in common with all others in this part of the country, had its attention forcibly drawn to the great and increasing depression under which the agricultural interest is at present labouring; and as the first step towards the removal of any evil is to ascertain with certainty its cause, a resolution was passed at our last quarterly meeting, requesting members of the society to procure all the information possible on the subject; such information to be communicated and discussed at our next meeting (Jan. 1836.) With this end in view, I have addressed myself to you, as presiding over the society which has the reputation of being the most extensive and active of all that have been established of similar description throughout Great Britain, and shall feel greatly obliged by an answer to the following queries:—

1st. What are the causes of the present ruinously low prices of agricultural produce?

2nd. What measures hold out the greatest probability of permanent relief to the agriculturist?

I assume that the distress which is pressing so heavily on the northern, cannot be unknown to the midland counties, and that the attention of the Cambridgeshire Association has been specially directed to matters so vitally affecting the interests of all proprietors and occupiers of land. If this should not be the case, or if you should consider the communication of a stranger as undeserving of reply, I shall be sorry to have given you the trouble of reading the above from, Sir, your very obedient servant,

H. S. THOMPSON.

To the Chairman of the Cambridge-  
shire Agricultural Association.

Duxford, Cambridgeshire, Oct. 30.

Sir,—I feel much flattered by the compliment which, through me, you are pleased to pay to the Agricultural Association over which I preside; and it gives me great pleasure to find that our exertions here to produce amongst our brother farmers throughout the country an acquaintance with the cause of our common distress, are not likely to be altogether unavailing.

It would be needless to enter into the various matters which have led us to believe that we cannot with justice attribute our present deplorable situation to high rents, to over production, to superabundant population, or, indeed, to any other of the theories of modern political economists; they may, indeed, in some places and upon some occasions, have assisted to promote it—we are free to admit that they have undoubtedly done so—but they are not the evil, nor can we look to any alteration in circumstances affecting *them* for its *efficient* remedy.

To proceed, however, to answer your questions in the order in which they are proposed in your letter. You ask, first, "What are the causes of the present ruinously low prices of agricultural produce?"

This question, we contend, will admit of but one answer—that answer we assert to be as obvious as cause and effect can possibly be. I will endeavour to condense it in a few words: we say then, that any abstraction from the circulating medium of a country, in other words, any contraction of its currency,\* must compel a reduction in the value of whatever is the produce of labour in that country, by a sum equal to the amount of that abstraction: thus, if there be fifty thousand quarters of wheat in the market to sell, where there are two hundred thousand pounds to purchase them with, wheat will necessarily be worth twice what it would fetch if there were only half two hundred thousand pounds in the pockets of the buyers, wheat being a perishable commodity, of daily consumption, and one which must be sold; and therefore we argue that, as it is capable of proof that the existing circulating medium of this

\* The wisecracks who have bored us to death about the "wholesome state of the currency" are beginning to be ashamed of the intolerable nonsense of such clap-trap fustian. Why, the whole gold in circulation does not amount to an *eighth part of one year's taxes!* If they really meant us to have a metallic currency, why did they not at once apply the sponge? They were guilty of just as great an act of dishonesty in arbitrarily reducing the value of the fee-simple of every man's estate one-third, and we might then not only have had the wholesome currency they talk about in good earnest, but a free-trade too, possibly without mischief.

country is less by one hundred millions\* than it was in 1818, the whole of that sum is taken from the value of the produce of British industry: hence, not the low price of wheat only and of every thing else, the product of labour, and of labour itself, but hence also the other obvious and mischievous result—the enormous increase of the national debt and of the taxes; because, though the figures representing the amount of them may remain the same, it takes double the quantity of corn, &c., to pay them with that it required twenty years ago.

With regard to your second question—"What measures hold out the greatest probability of permanent relief to the agriculturist?" Knowing the disease, we almost necessarily know the cure:—we believe that nothing can produce permanence in prices, or give us remunerating ones, but a circulating medium much more extended than the present, to be regulated in its amount by the amount of the national debt, and to be kept as nearly as possible at a stated sum; such extension to be produced either by legalizing every where the tender of the Bank of England note and the re-issue of small notes by the country bankers as well as by the Bank of England, or by re-coining the metallic currency, so that a sovereign of the value of twenty shillings should at most be not more than two-thirds of the size of the present one: there would, perhaps, be this additional advantage attending the adoption of the latter expedient, it would have a tendency to bring English absentees (of whom there are a great many thousands) home again; millions of money annually sent abroad would, probably, be spent in this country, and, nationally considered, nobody would be damaged by the change but the mere money-owner, whose business it is to reduce the price of every thing to the lowest farthing, and who is now fattening upon what he has already accomplished in this way, to the ruin and starvation of every body else.

This is the remedy; but as useful and powerful auxiliaries of a measure of this kind, *protection* must be granted to British industry; so long as we have a national debt, which, by the way, will not be very long-lived if we continue to go on as we do, the means must be granted to the people of paying it. Our manufactures therefore, our shipping interests, and, in short, all the industrious and producing classes of the country, whatever be their denomination, and of course including the farmer, must be effectually protected from unfair foreign competition by adequate duties, or if need be by total prohibition. The immediate consequence of adopting measures of this nature would be good prices, good profits, and good wages; the great thing for us to consider is how to accomplish objects so desirable to the whole nation; to us no better plan suggests itself than that of uniting all the farmer's societies throughout the empire, and showing ourselves in such force that the Legislature—whoever may happen to be at the head of the Government—may be compelled to entertain the subject, and to do us that indispensable and obvious justice which the smallest portion of common sense should have long ago dictated; for ourselves we have resolved to

support no candidates to represent us in Parliament who are known to entertain views of an opposite kind, and if all the societies in the country were to act upon similar principles, we should not see motions like those of the Marquis of Chandos and Mr. Cayley, in the last Session, treated so unceremoniously as they were.

I am happy to say that since I received your letter two others have reached me—one from East Suffolk, and the other from Buckinghamshire—requesting deputations from the society of this county to attend meetings at Framlingham on the 3rd, and Aylesbury on the 12th, and it is my intention to be present, if possible, at both.

I would have given your letter an earlier answer, but I thought it right before doing so to submit it to the Committee of our society.—I have the honour to be, sir, your obedient servant,

WM. THURNALL.

To H. S. Thompson, Esq.,  
Kirby Hall, Boroughbridge.

### EARLY ŒSTRUM, AND IMPREGNATION IN A HEIFER.

By Mr. W. A. CARTWRIGHT, *Whitchurch.*

(From the *Veterinarian.*)

In my last letter to you I said that Mr. Wilson informed me that a Mr. Robert Grindley, of Penley, had had a heifer that calved when she was about fifteen months old, and that she died in calving. I have this day seen Mr. Grindley, who says that this heifer of his was of the pure Durham breed, and could not be more than *twelve months* old when she calved.

When hulled she must have been feeding at the pail, and impregnated by a bull of his neighbour's (Mr. Griffiths) that had broken out of his pasture, and was at least nine score weight a quarter. He also says that the heifer *did not die in calving*, but that the calf was a very large one, and ably extracted, with great difficulty, by Mr. Hampson, veterinary surgeon, Ellesmere, who was some hours in cutting it away. She is now doing very well and in calf again, and Mr. G. believes she will not be above two years old ere she next calves.

A Mr. Knight, who resided some years ago in this town, had a heifer that brought a calf when she was fourteen or fifteen months old.

Being at D. Poole's, Esq., of Marbury Hall, the other day, I was mentioning these circumstances to the cowman there, who said that they had, two or three years ago, a Maux calf, not above three or four months old, that was frequently shewing a desire for the bull, and which was during the winter time. She was not allowed any intercourse with the bull until she was older, when she conceived.

I am, from the facts mentioned in this and my last letter, inclined to think that the circumstance of calves seeking the bull, and becoming impregnated at so early a period, is not so rare a fact as we might be led to imagine, and have little doubt but many similar cases will be sent for your insertion.

In the manufacture of English cheese rennet is commonly employed to coagulate the caseous matter; but in the manufacture of Dutch cheese muriatic acid is employed, to which, it is said, its pungency and freedom from mites are to be inferred.

* Bank of England circulation less in 1832	
than in 1818.....	9,719,260
Country Banks, ditto, ditto.....	19,000,000
Bills of Exchange, ditto, ditto.....	87,000,000
	115,719,260
Allow for gold and silver.....	15,719,260
<b>Total deficit .....</b>	<b>100,000,000</b>

## RUTLAND AGRICULTURAL CHRISTMAS SHOW.

The Annual Christmas Show of this truly useful Agricultural Society was exhibited in the Riding House at Oakham, on Tuesday, Dec. 1, and never since its establishment has it produced one on an equality with the present. The animals shown were of the very first description, comprising oxen, steers, cows, heifers, sheep, and pigs. The number of visitors exceeded that of any former year,—the receipts for admission at sixpence each amounting to 33l 10s 6d. The prize beast of the first class (to Stafford O'Brien, Esq.) was surrounded during the whole of the day by a host of competent judges, who expressed the greatest admiration of the proportions of the animal,—nor was the second prize (to the Marquis of Exeter) without its admirers; indeed, all declared that they never witnessed a better exhibition of cattle, nor so many that really deserved premiums. About three o'clock, the members and friends of the society retired to a sumptuous

### DINNER.

prepared by Mr. H. Stimson, at the Crown Inn.

Sir Gerard Noel, Bart., the president of the society, officiated as chairman, and Stafford O'Brien as vice; and amongst the company present we noticed G. J. Heathcote, Esq., M. P., H. Handley, Esq., M. P., Hon. Col. Lowther, M. P., E. W. Wilmot, Esq., Henry Dawson, Esq., Henry Wilson, Esq., R. W. Baker, Esq., J. E. Jones, Esq.,—Bevan, Esq., Augustus O'Brien, Esq., J. Wetheral, Esq., &c. &c.

After the usual loyal toasts had been drank, Mr. Smith, of Burley, the Secretary, was called upon to read the award of the Judges (Mr. Stokes, of Kingston, Warwickshire, Mr. Bennett, of Bickerings Park, Bedfordshire, and Mr. Farrow, of Loughborough, Leicestershire,) which was as follows:—

**CLASS I.**—To the feeder of the best Oxen or Steer of any breed or weight, under five years of age, without restriction as to feeding.

The first premiums of 15 sovs. to Stafford O'Brien, Esq., of Blatherwycke Park, near Wansford, a 4 years and 6 months old Hereford Ox, bred by himself, and fed by him on oil-cake, beam-cake, turnips, carrots, and hay.

The second premium of 7 sovs. to Lord Exeter, of Burghley, near Stamford, a under 3 years and six months old Durham Steer, bred by his Lordship from Archibald, dam by Emperor, and fed by him on oil-cake, bean and barley flour, carrots, Swedish turnips, and hay.

The other competitors in this class were R. W. Baker, Esq., of Cottesmore, near Oakham; and Mr. John Smith, of Heckington, near Sleaford.

**CLASS II.**—To the feeder of the best Oxen or Steer of any breed or weight, under five years of age, that shall not have had, from the 1st of February, 1835, to the 1st of August, oil, oil-cake, corn, pulse, seeds, or meal of these.

The first premium of 10 sovs. to R. W. Baker, Esq., of Cottesmore, near Oakham, a 4 years and 2 months old Durham Ox, bred by himself, and fed by him on grass, hay, turnips, carrots, oil-cake, and bean-flour.

The second premium of 5 sovs. to Mr. S. Cheetham, of Hambleton, near Oakham, a 3 years and 10 months old Durham Steer, bred by Mr. J. Wilkinson, of Lenton, near Nottingham, and fed by him on hay, clover, tares, and vegetables only, previous to the 1st of August, and subsequently oil-cake and bean-meal.

The other competitors in this class were Mr. Hotchkiss, of Edenham, near Bourne; and Mr. C. Smith, of Burley, near Oakham.

**CLASS III.**—To the feeder of the best Oxen or Steer of any breed or age, under 90 stone, that shall not have had, from the 1st of February, 1835, to the time of showing, oil, oil-cake, corn, seeds, or pulse of these.

The first premium of 7 sovs. to Mr. C. Smith, of Burley, near Oakham, a 3 years and 10 months old Hereford Steer, fed by him on hay and carrots.

The second premium of 3 sovs. to Mr. Hotchkiss, of Edenham, a 3 years and 10 months old Twin Steer bred by himself from a bull of his own, and fed by him on vegetables only.

The other competitors in this class were R. W. Baker, Esq., of Cottesmore; Mr. R. Healey, of Loughton, near Falkingham; Sir John Palmer, Bart., Carlton, near Rockingham; and Mr. John Fryer, of Hambleton, near Oakham.

**CLASS IV.**—To the feeder of the best Oxen or Steers of any breed or weight, under five years of age, that shall not have had, from the 1st of February, 1835, to the time of showing, oil, oil-cake, corn, pulse, or meal of these.

The first premium of 10 sovs. to Mr. H. J. Rudkin, of Langham Lodge, near Oakham, a 3 years and 11 months old Steer, bred by Mr. John Almond, of Langham, and fed by him on grass and vegetables only.

The second premium of 5 sovs. to R. W. Baker, Esq., of Cottesmore, a 4 years old Ox, bred by the Earl of Lonsdale, from Mr. Baker's bull Gainsborough, and fed by him on grass only till 19th of October, since then upon carrots, turnips, hay, and clover.

The other competitors in this class were Mr. Hotchkiss, of Edenham; Sir J. Palmer, Bart., of Carlton, and Mrs. Eaton, of Ketton, near Stamford.

**CLASS V.**—To the feeder of the best Cows or Heifers of any breed or weight, under five years of age, without restriction as to feeding.

The first premium of 7 sovs. to R. W. Baker, Esq., of Cottesmore, a 4 years and 10 months old Durham Heifer, bred by himself, and fed by him on grass, hay, turnips, carrots, oil-cake, and bean-meal.

The second premium of 3 sovs. to Sir J. Palmer, Bart., of Carlton, a 4 years and 8 months old Heifer, bred by himself, and fed by him on grass and turnips only.

The other competitor in this class was Mr. H. J. Rudkin, of Langham Lodge.

**CLASS VI.**—To the feeder of the best fat Dairy Cow, above five years of age, that has calved twice at least at their full time, without restrictions as to feeding.

The first premium of 7 sovs. to Mr. Needham, of Water Newton, near Warsford, a 7 years and 9 months old Cow, bred by himself from a bull of his own breeding, and fed by him on oil-cake, grass, turnips, cabbages, and clover.

The second premium of 3 sovs. to Mr. Hotchkiss, of Edenham, a 10 years old Cow, bred by himself from a bull of his own, and fed by him on about 4 cwt. of oil-cake and Swedish turnips, since the 1st of August.

The other competitor in this class was Mr. John Coverley, of Castle Byham.

**CLASS VII.**—To the feeder of the best long-woolled fat Wether Sheep, one year old, without restriction as to feeding.

The first premium of 7 sovs. to Mr. Wm. Pawlett, of Barnack, for 3 under 20 months old Leicester Wethers, bred by himself, from rams hired of Mr. Pawlett, of Tinwell, and fed by him on vegetable food only, viz. clover, turnips, cole, cabbages, and carrots.

The second premium of 3 sovs. to Mr. H. Stimson, of Oakham, for 3 under 23 months old Leicester Wethers, bred by himself, and fed by him on turnips, cabbages, 2 stone of oil-cake, and one bushel of beans.

The other competitors in this class were Lord Exeter, of Burghley (highly commended); E. W. Wilmot, Esq., of Pickwell; and Mr. C. Bowman, of Greatford.

**CLASS VIII.**—To the feeder of the best long-woolled fat Wether Sheep, one year old, bred within the limits of this Society, that have not at any time eaten oil, oil-cake, seeds, corn, pulse, or meal of these.

The first premium of 5 sovs. to Mr. Wm. Pawlett, of Barnack, for 3 under 20 months old Leicester Wethers, bred by himself, from rams hired of Mr. Pawlett, of Tinwell, and fed by him on vegetable food only.

The second premium of 3 sovs. to Mr. R. Smith, of Burley, for 3 under 20 months old Leicester Wethers, bred by himself, from rams hired of Mr. R. Garratt, and fed by him on clover, cole, and carrots.

The other competitor in this class was E. W. Wilmot, Esq., of Pickwell.

**CLASS IX.**—To the feeder of the best long-woolled fat Wether Sheep, two years old, fed within the limits of this Society, that have not at any time eaten oil, oil-cake, seeds, corn, pulse, or meal of these.

The first premium of 7 sovs. to Mr. Painter, of Burley, for 3 under 31 months old Leicester Wethers, bred by himself, from rams hired of Richard Cresswell, Esq., and fed by him on grass and vegetable food only.

The second premium of 3 sovs. to Mr. Burgess, of Ridlington Park, for 3 under 31 months old Leicester Wethers, bred by himself, and fed by him on vegetable food only.

The other competitor in this class was Mr. Bradshaw, of Burley (commended).

**CLASS X.**—To the exhibitor of the best pen of five breeding Ewes that have suckled lambs up to the 1st of July, 1835, and that have been fed on grass and seeds only for six months previous to the time of showing.

The first premium of 5 sovs. to Hon. Colonel Lowther, M. P., of Cottesmore, for five Leicester Ewes, bred by himself, and fed by him on grass only, at his Barleythorpe estate.

The second premium of 3 sovs. to E. W. Wilmot, Esq., of Pickwell, for five Leicester Ewes, bred by himself, and fed by him on grass only, and suckled their lambs until the 20th July, 1835.

The other competitors in this class were W. Sherrard, Esq., of Langham; Mr. R. Smith, of Burley (commended); and Mr. Hayes, of Wisenside.

**CLASS XI.**—To the feeder of the best fat Pig of any breed or age, weight under 20 stone.

The first premium of 5 sovs. to Mr. T. Chapman, of Whitwell, a 31 weeks old Pig, bred by himself, and fed by him on wheat flour, and a little barley-meal.

The second premium of 2 sovs. to Mr. W. Stimson, of Oakham, a 42 weeks old Pig, bred by himself, and fed by him on barley-meal.

**CLASS XII.**—To the feeder of the best fat Pig of any breed or age, weight under 20 stone, bred within the limits of this Society.

The first premium of 3 sovs. to Mr. J. Stimson, of Oakham, for a 52 weeks old Pig, bred by the Rev. H. Finch, and fed by him on meal, &c.

The second premium of 2 sovs. to E. W. Wilmot, Esq., of Pickwell, for a 14 months old Pig, bred by himself, and fed by him in the straw-yard with the other store pigs; had neither milk, corn, or flour, until Nov. 1st, 1835; since then it has been fed on barley-meal.

The other competitors in this class were Mr. Hayes, of Whissendine; and Mr. T. Lester, of Manton.

**CLASS XIII.**—To the owner of the best Cart Stallion from any county, that will attend at Oakham once a week during the season of 1836, and covers many mares as may be offered to him, (not beyond a reasonable number, and at a reasonable price).

A premium of 10 sovs. to Mr. D. Housin, of Muscom, for an 11 years old brown Cart Stallion.

Mr. Billing's, (of Histon,) 9 years old Cart Stallion allowed to be the second and succeeding horse, in case Mr. Housin neglects the restrictions of the society.

The other competitors in this class were Mr. J. Berridge of Ingersby; R. W. Baker, Esq., of Cottesmore; Mr. Hefelkin, of Edenham; Mr. Stapleton, of West Deeping; Mr. Goodwin, of Ayston; and Mr. King, of Seaton.

*Offered by E. W. Wilmot, Esq., of Pickwell.*

To the Labourer in Hu-bandy who has brought up the greatest number of children without parochial relief, and can produce the best character for his employer.

The first premium of 3 sovs. to Thomas Barfield, of South Luffenham, who has worked upon the farm (now in the occupation of Mr. W. Springthorpe) for 59 years, has brought up a family of nine children, is now in his 71st year, and has never received any parochial relief.

The second premium of 2 sovs. to John Faulks, of Langham, labourer, who has brought up five children, with a sick wife, without parochial relief; has worked upwards of 40 years upon the farm now in the occupation of W. Sherrard, Esq., of Langham, and still continues to do so.

The third premium of 1 sov. to W. Chamberlain, of Burley, labourer, who has lived and worked upon the Burley Park Farm, near Oakham, for 39 years, is 51 years old, has brought up eight children, and has never at any time received parochial relief, and still bears an excellent character.

The following competitors were highly commended by the Stewards:—Thos. Henfries, of Eagleton; John Freeman, of Ketton; and Zachariah Wright, of Cottesmore.

*Offered by Mr. Robert Smith, of Burley.*

To the Shepherd, whose master is a member of this Society, who had raised on the 1st of June, 1835, the greatest number of lambs, in proportion to the number of ewes put to the tup on the farm, not less in number than fourscore.

The first premium of 2 sovs. to William Grettton, shepherd to E. W. Wilmot, Esq., who raised from 200 ewes put to the ram, 243 lambs.

The second premium of 1 sov. to John Speed, shepherd to Mr. Bradshaw, of Burley, who raised from 100 ewes put to the ram, 118 lambs.

The other competitors were Wm. Weston, shepherd to Mr. Clarke, of Burley; C. Conson, of Burley, shepherd to Mr. C. Smith; John Harrow, shepherd to Mr. Painter, of Burley; and John Wright, shepherd to Mr. Burgess, of Ridlington Park.

*Also by Mr. R. Smith.*

A Silver Medal to the breeder of the best pen of ewes in Class 10, to the Hon. Col. Lowther, M. P.

**SWEETSTAKES.**—A Sweetstake of 2 sovs., for the best Beast of any breed, age, or weight, was won by Stafford O'Brien's, Esq. Hereford Steer, shown in Class 1.—Competitor, Lord Exeter's Red Steer, shown in Class 1.

A Sweetstake of 1 sov., for the best Sheep of any kind, breed, or age, was won by E. W. Wilmot's Shearing Wether. Competitors, Lord Exeter's and Mr. Bowman's Shearing Wethers, all in Class 7.

A Sweetstake of 1 sov. for the best pen of five breeding Ewes, as in Class 10, was won by E. W. Wilmot, Esq.—Competitor, Mr. R. Smith, of Burley.

**EXTRA STOCK.**—Sheep were exhibited by W. Sherrard, Esq., of Langham; Mr. Wm. Pawlett, of Barnack; Mr. Bowman, of Greatford; Mr. H. Stimson, of Oakham; and Mr. R. Smith, of Burley.

Mr. Lester, of Manton, exhibited a fifteen months old Pig, which was supposed to weigh 50 stone; another was exhibited by Mr. Hayes, of Whissendine.

The CHAIRMAN gave "Prosperity to the Rutland Agricultural Society."

Sir G. HEATHCOTE said, he hoped they would excuse him breaking through the regular routine of toasts, when they heard the health he was about to propose, and think with himself that it was seasonably brought forward, and he was confident that it would be drank with the greatest plaudits; he alluded to their excellent President:—they had all known him for many years in the various capacities in which he had officiated in this county—as an upright honest and independent representative,—a liberal landlord,—and the munificent patron of agriculture. He was sure they would all cordially join with him in wishing that he might long continue to fulfil them, and that they might have many opportunities of seeing him preside at these anniversaries, he gave "Sir Gerard Noel, Bart."

Sir GERARD NOEL said, he should not have presumed thus early to rise to address them, were it not for the extreme compliment which had been paid him, and to prevent an ebullition of enthusiasm which had not been paid to the far more worthy toast which had preceded. He felt it his duty, whilst he held the presidency of the present company, to enforce the order of the Society, and he therefore desired that there might be no rising or cheering. He thanked them for the honour they had conferred upon him, which had been done with as much cordiality as his small merits deserved—that of serving the interests of the Society.

Toast—"The Vice Presidents of the Society."

Col. LOWTHER returned thanks for himself.

G. J. HEATHCOTE, Esq., M. P., said, as his hon. friend had only spoken for himself, it became his duty again to address them. He felt deeply the kind manner in which they had received the toast, and tendered them his best thanks. It was one of his most pleasing duties to come amongst them at these annual exhibitions, as he was convinced these societies were of the greatest possible value, both in an agricultural and moral point of view. In an agricultural point of view, it excited a competition for the production of the finest cattle; and in a moral point of view, it brought the landlord and tenant together in honourable competition, and rewarded the moral and industrious labourer. The interests of the landlord and tenant were the same, and he hoped that good landlords would always meet with good tenants, and that good tenants would meet with good and liberal landlords. (*Cheers.*) By the rules of the society, he was not allowed to touch on any political point, and he would merely say that he wished them better times and better prices, and that those times might speedily arrive. He hoped they would have the same success as they had to-day in the wider field of Smithfield, where most of the cattle which had been shown would go, and concluded by wishing them a happy return of the day.

The CHAIRMAN said the next toast which he would give was the Judges, Messrs. Stokes, Bennet, and Farrow. He would just add, that their judgment had been given with such propriety and impartiality as to meet with the full approbation of the successful candidates, and those who had not been so fortunate.

Mr. BENNETT returned thanks.—They had been exceedingly gratified in attending this exhibition, and though his own residence was sixty miles distant he had come with the greatest pleasure. If the society continued to prosper as it had done during the last two or three exhibitions, it would soon be, if not the very first, the second in the world. He could speak with more certainty if he were acquainted with the societies of Manchester, Liverpool, &c., but within his knowledge it was surpassed by none excepting Smithfield, and he must acknowledge that that show was chiefly indebted to Oakham for its primest cattle. He felt flattered in having an opportunity of thus coming amongst them, to witness so good an exhibition of stock, and such a good exhibition of good old English faces.

Toast—"The Stewards of the Society."

E. W. WILMOT, at the request of his associates, rose to return thanks. He said, they had fearlessly and honestly exerted their best efforts for the interests of the society,—and they took it as an earnest that their efforts

had been successful, and as a great gratification to themselves,—when they saw the superior stock which had been exhibited to-day, the number of people assembled to witness it, and the respectable assemblage of gentlemen who had met them at dinner. He was convinced, more than ever, that exertion and unanimity were only wanting to make them the rival of the greatest society in the world. He wished particularly to impress on their minds that the meeting to settle the bill of premiums would be in January,—and he earnestly requested that all would attend so as the subject might be canvassed by all parties, and then they would not fail of having such a bill of premiums as would give satisfaction to all,—and he hoped, the next time, if possible, they might have better success than to-day. In the name of the Stewards, he begged to thank them for the honour they had shown them, and returned their best thanks.

The CHAIRMAN gave “the Secretaries and Treasurers,” and Mr. H. J. RUPKIN, of Langham Lodge, returned thanks; after which “the Successful Candidates” were given, coupled with the name of Stafford O’Brien, Esq.

STAFFORD O’BRIEN, Esq., returned thanks. Though he felt greatly honoured by being the successful candidate at this year’s exhibition,—he felt it a far greater honour to preside as Vice-President at this meeting. (Cheers.) He alluded to a book recently published by Mr. Baker, who had kindly sent him a copy, and though he agreed with that gentleman in his opinion that there was a great quantity of the primest cattle bred in the county of Rutland, yet he differed with him when he alleged they were also reared here. He knew the county of Rutland, perfectly well, and had passed over he might say every acre; and he did not think the county at all adapted for the rearing of cattle, when brought in competition with Durham, Hereford, and several other counties he could mention. No place, however, he agreed with Mr. Baker, was able to compete with them in the breed of sheep. That gentleman (Mr. B.) had been the greatest advocate for the interests of agriculture, that the county could boast of,—and under his active, energetic, and enterprising direction the Society had made a rapid improvement, and he now, without any exception, considered it the first in the world, as, since its establishment, it had borne off the first prizes for five successive years at Smithfield, two of which he had the honour of obtaining himself. Under this opinion he confided to Mr. Baker the 15/ which had been awarded to him, as the first premium, to be applied by that gentleman to the best interests of the society. (Loud cheers.) He concluded by proposing a toast which the worthy president was wont to drink with the greatest zest, and which he was sure he would not now let pass by without adding his tribute of applause; he gave “the Ladies of the County of Rutland.” (Loud applause.)

The CHAIRMAN gave “the unsuccessful candidates, and also the Grantham, Leicester, Lincoln, and other societies, and success to them in fellowship with the Rutland Society.”

H. WILSON, Esq., of Harlaxton, as a member of the Leicester Society, returned thanks, and said, it would be highly gratifying to the Leicester Society, if the Stewards, or other gentlemen, would favour them with a visit at their next show.

Mr. SHIELD, of Frieston, near Grantham, acknowledged the compliment paid to the Grantham society, and expressed his wish that some of the members of the Rutland Society would attend their next show, to convince them that they were not able to compete with this county. His wish was to see such a show as would enable the small farmer, and even the honest labouring man, to compete with the more wealthy farmer—where a man could compete without being at any extra expense in feeding. As it was, they came here now loaded with oil-cake, and all sorts of artificial feed, which precluded the poor farmer from a fair competition.

Mr. BENNETT, in reference to a remark made by the previous speaker, that the feeding was not taken into consideration by the Judges in awarding the prizes, said that Mr. Shield was in error, for that had been particu-

larly attended to that day, and one of the prizes had been awarded to an animal which had been fed on vegetable food only; and they had classes of all descriptions. Oil cake, it was true, had done great things in bringing cattle to a state of perfection, but he never knew oil cake to make a bad constituted animal a good one,—it never gave solidity to flesh of an inferior quality,—or symmetry and proportion to a deformed and misshapen animal. If the classes were a little larger, and they had a greater number of each shown, they would in a great measure do away with feeding on oil cake. The samples of animals and sheep they had seen that day fed on vegetable food only would be a credit to any county in the kingdom, and they could not expect to see much improvement after this, for they had already come to a state of perfection. (Cheers.)

STAFFORD O’BRIEN, Esq., proposed a toast, which he begged to couple with the name of Mr. Handley. It referred to a question on which there were many conflicting opinions; but it did not allude to anything of a political tendency. The toast was strictly agricultural.—“Success to the new Islington Market.” Those who had witnessed the cruelty and evils practised upon the cattle in Smithfield market, would feel anxious for the success of this undertaking. (Cheers.)

Mr. HANDLEY said, the last time he had met them on a similar occasion he was pregnant with his new offspring; he had now gone his prescribed time, and had brought forth; and they must all acknowledge that it was a monstrous fine baby (laughter); and he now consigned it to their fostering care and favour. He had taken up the subject solely on the idea that it would advantage, in a great measure, the interests of agriculture, and put an end to the horrid cruelty and torture which the poor animals endured in Smithfield; and he was convinced, from the great mass of evidence he had been doomed to hear in committee every day on the subject, through two long and protracted sessions, that agriculture would be materially advantaged by the alteration. The brutality, the inconvenience, and the monopoly now experienced at Smithfield, would be done away with on the opening of Islington market, which he believed would be in February. (Cheers.) He called upon the society to give the new market a trial—to send their stock there until they were convinced that it was either superior or inferior to Smithfield; and he sincerely hoped that good prices would meet them. His offspring was now in their hand, and it must either prosper under their smiles, or sicken and die under their frowns. The meeting to-day, and the stock which had been shown, would demand commendation from every quarter; and he hoped the landlord and tenant would still continue to act in unity, in endeavouring to improve and bring to perfection so great a staple commodity of the country. He felt great pleasure in meeting, for the first time, such an advocate for the interests of agriculture as Mr. O’Brien; and he was confident, with such an advocate, Islington market would have nothing to fear.

Mr. SHIELD gave—“The Father of the County, and his associate, the Members of the County of Rutland.”

Sir GERARD NOEL returned thanks. The recollection of his long service in the House of Commons was associated with the most pleasing sensations. He had had the honour of being a member of that house longer than any gentleman, and he therefore styled himself the Father of the House of Commons; and he felt great pleasure in knowing that, during the long period of his service, he had not lost the esteem and favour of the county he had the honour of representing; and he hoped when he had grown too old in the service any longer to fill the situation with benefit to his constituents, he should have the prudence to retire, and give place to some one else better able to fill the responsible situation. (Cheers.)

G. J. HEATHCOTE, Esq., acknowledged the compliment paid to his father, whose anxiety to promote the best interests of agriculture was too well known to the present meeting to need any comment from him.

H. HANDLEY, Esq., M.P., rose to propose the health of a gentleman well known amongst them, whose energetic exertions for the welfare of agriculture might have



been more fully expatiated upon by some of his neighbours, but not more appreciated than it was by himself,—he gave the health of R. W. Baker, Esq. (*Cheers.*)

R. W. BAKER, Esq., acknowledged the compliments paid him by the hon. gentleman, and also by the worthy vice. He took a survey of the origin and rapid progress of the society, which at first originated in a ploughing match, when he had great difficulty in bringing together nine ploughs; but by honest perseverance the nine ploughs were increased to between twenty and thirty, and the result was a greater improvement in cultivation than had ever been previously witnessed. In the last summer he had distributed prizes for ploughing, 33*l* 10*s*.; for the best cultivated farm, a cup filled with crown pieces, 43*l*.; to 105 occupiers of small allotments, 21*l* 2*s*.; in all, 102*l* 12*s*. for the encouragement of spade culture and good husbandry. He congratulated the society on the extraordinary show of good animals,—and that throughout the day not a single iota of dissatisfaction had arisen to damp their arbour. He scarce knew how to express the pleasure he felt on Mr. O'Brien's munificent return of the prize money that had been awarded to him, and begged to tender the warmest thanks of the society. He hoped they would soon be able to form a class, where the farmer under forty acres, might successfully compete with the more opulent farmer, and where even the labourer might come in for a greater share of competition,—for without labourers the owners of landed property were as nothing; and however humble their means, there was not one of them but could do something for his poorer neighbour. (*Great applause.*)

G. J. HEATHCOTE, Esq., gave—"Success to the cattle which will be sent from this meeting to Smithfield, to compete for the prizes there."

The CHAIRMAN gave—"Lord Lonsdale and the Cottesmore Hunt;" and also "The gentlemen who have this day honoured us with their company, unconnected with this county."

Col. Lowther having retired, Mr. BEVIN (of London) returned thanks. After which Sir Gerard Noel retired from the chair, and was succeeded by E. W. Wilmot, Esq., who gave the health of Mr. Cheetham, the retiring steward.—Mr. C. returned thanks, and said he should leave his stewardship in such hands as would not lead him to regret retiring from the office.—The following toasts were then given in succession, "The Press," "The noble Lord Spencer," "The Marquis of Chandos," &c.—After which the conviviality of the evening was kept up to a late hour and the company separated highly gratified with the day's entertainment.

Mr. Baker's bull, *Gainsboro*, won two premiums at Oakham some three years ago, and four of his breed were shown, three of which won first prizes, and the other a second prize.

## REMARKS ON THE MODE OF BREEDING HORSES AND ITS ADVANTAGES.

The celebrated Hugo Meynell (grandfather to the gentleman of the same name, who resides at Hoarcross Hall, in Needwood Forest, and hunts that neighbourhood), who raised that remarkable fox-hunting fabric, at Quorndon, Leicestershire, which faded away in the hands of Mr. Osbaldeston, was the first to improve the speed of the fox-hound, and give a new character to the highly animating diversion for which he is used. Since the days of the celebrated sportsman just mentioned, no pains have been spared to increase the speed of the fox-hound, and, in consequence, corresponding fleetness or celerity became indispensable in the horse also: for the *elite* (very light weights,) thorough-bred horses would answer the purpose; but as full blood horses, generally speaking, are not equal to welter weights, particularly over a heavy or stiff country, it

became an object of the first consideration to procure horses with sufficient speed and power to carry the latter up to the modern hound. The Earl of Sefton, who became master of the Quorndon establishment on the retirement of Lord Foley, was the first, we believe, who took a second horse into the field; an example which has been since very generally adopted; his Lordship rode about sixteen stone, and for a horse which could carry him up to his own hounds (the Quorndon) for fifteen minutes, he did not hesitate to give five hundred guineas; for a nag which could thus bear him along for twenty minutes, he gave eight hundred guineas. Horses of this description, capable of carrying welter weights up to the fleetest hounds in the kingdom, are very rarely seen in the racing stud; but may be produced in the manner already described, and a market is always open for such animals, where they will fetch prices according to their capacity—particularly of carrying weight. As much power and as much blood as possible should be the maxim of the breeder; and when what is called a half (which will generally be three-quarters) bred mare is put to a thorough-bred horse, the produce is not very far from full blood, the qualities of the horse generally preponderating, particularly in the case of a filly foal. Any person who has followed hounds can scarcely fail to have noticed how *blood* tells in a distressing run; and how very few, if any, of the basely bred nags live to the end of it.

From what we have stated, the advantage to the agriculturist, of breeding annually a foal or two of this description, may be easily perceived; a ready sale, a good price, and little risk in the system.

However, let it be well impressed on the minds of those who may think proper to adopt the plan which we have pointed out, that we are no advocates for subjecting young things to hard work at the usual early period. The racer is frequently backed when only a year old; and at this time, when his bones have attained no solidity, his tendons no firmness, however light the weight may be which is placed on his back, he can scarcely fail to sustain injury. Two-years old races are common all over the kingdom: in these cases something more than 8st. is placed on their back: they go off at score, and run half a mile (the general distance) as it were, upon a wind: how often have we seen two-years old pull up lame from such overstrained exertions, and never afterwards recovered! The most important stakes in the country, the Derby, the Oaks, and the Doncaster St. Leger, for instance, are exclusively for 3-years old; and how often does it happen that the winner of one of these splendid prizes is never able to come to the post afterwards, at least as a successful racer? Nor is this all: from these precocious, or rather premature, exertions arise curbs, spavins, splents, foot lameness, diseased fore legs, which we see propagated from the sire to the progeny, or a predisposition for similar diseases, which seldom fail to make their appearance when the animal becomes subjected to exertion; hence may be traced the indifferent and bad fore legs, so common with such of our horses as have any pretensions to breeding. All this can excite no surprise, when we consider that the horse does not attain maturity till he is seven years old: being pressed to the severity of exertion when in a state of comparative infancy, the evils already noticed are to be expected, if they are not the necessary results.

Such being the case with the racer, let those who

breed for the hunting field be careful not to subject their rising hopes to severe exertion till they have acquired sufficient strength for the purpose. At the same time, let it not be understood that we would have the young animal run wild, that he should continue unrestrained till he had acquired maturity: quite the contrary: we well know, from experience, that if a colt be suffered to enjoy unlimited freedom till he is two or three years old, he becomes very troublesome to manage; and therefore at as early a period as possible we would subject them to the head stall and gentle handling; which, however, should be judiciously managed, and nothing like *play* or *trick* be allowed to debase it: horse play is always dangerous, and frequently degenerates into incurable vice. This gentle handling should be continued till the animal has attained the age of two years, when he should have a very light weight put on his back, and gently led about for a reasonable period; he may be gently *longed*; but, to whatever exercise he is subjected, it should never be so long continued at one time as to disgust him—by which the best tempered nag in the world may be rendered the reverse. Thus, by timely, constant, and gentle means, the young animal is brought or beguiled into the requisite submission, without those violent outrages on his temper and disposition which we so frequently see inflicted by unreflecting and barbarous ignorance.

At three years old the animal may be frequently ridden, but not put to violent exertion: he may also be taught to jump *in hand*: we would thus proceed till he had attained his fourth year, when we should be tempted to shew him hounds—merely shew him hounds, as we would by no means recommend him to be ridden with them. At five years, he might be tried with a short or slow run; and, after having attained his sixth year, he might be regularly hunted. At this period, if not before, plenty of customers would be found for him, and a good price obtained. A farmer bringing two such nags annually into the market would find it to answer his purpose; it would make up for that pecuniary deficiency which he now experiences in the price of his grain.

If the young animal were yoked to light and easy draught occasionally, during his course of probation, we are not aware that any injurious consequences would be likely to result from it.

It is the practice of those who breed for the turf to give the foal, from the earliest period of its existence, as much milk as possible; and, if its dam be incapable of affording an abundant supply, the nutritious beverage obtained from the cow is rendered subservient to the object in view: nor is this all; since, as soon as the young animal can be induced to feed on corn, it is supplied with the choicest oats which can be procured with an unsparring hand. By such means the growth of the foal, like forced vegetation, proceeds rapidly, and it attains, if not an unnatural, at least an extraordinary size. But, if it thus is made to assume the appearance of more advanced age, if a two-years old is thus forced into an apology for an animal a year in advance, it is our decided opinion, that the creature feels the approach of old age at an earlier period also: further, we are much inclined to think, that, although the animal under such treatment attains an extraordinary size at an early period of life, inasmuch as the increasing firmness of the bone and tendon cannot keep pace with the superabundance of muscle which is thus forced upon them,

the creature, though it assumes the appearance of year beyond its age, is not a year increased in strength. To this artificial forcing of nature in the young racer, and the severe exercise to which he is consequently subjected, may be mainly attributed the "*breakings down*" which so frequently occur in the early part of the animal's life: this also we consider the source of the bad fore legs so prevalent on the race-course—some scores of lamentable instances we could mention from memory.

If the system of bringing out the racer at two years old (or even earlier) be continued, it is not likely that the practice which we have just described (of artificially forcing nature) will be abandoned; but we feel convinced that, if those who choose to breed hunters and superior harness and saddle horses, will judiciously assist the operations of nature on animal life, instead of committing a physiological violence, they will bring their animals to market in a much superior form, and at a cheaper rate, though not quite so early.

A foal should be well supplied with that universally nutritious fluid, milk; and, if the dam be unable to afford the requisite supply, recourse should be had to another source, or the injurious effect will very soon be perceptible in the appearance of the young animal. In such case, milk from the cow will answer the purpose, but milk from another mare would be preferable; instances, indeed, are not wanting where a foal reared entirely on extraneous lacteous supply, has in due time proved a superior horse: for example, Cade, a bay horse, foaled in 1734, bred by Lord Godolphin. He was got by the celebrated Godolphin Arabian, and his dam Roxana dying shortly after his birth, he was brought up by hand—whence his name, Cade. In October, 1740, he won the King's Plate at Newmarket, and afterwards became a favourite stallion, was the sire of Match'em, Changeling, Young Cade, and a great number of celebrated racers: he proved more valuable as a stallion than a racer; but, as he must have suffered in early life from the manner in which he was reared, scarcely a doubt can be entertained that his valuable properties would have been much enhanced had he been reared according to the ordinary process of nature.

But to continue.—We would have the foal well, indeed abundantly, supplied with milk; and though we should, for some time, be content without the administration of corn to it, we should feel no hesitation in giving the dam a daily feed, even though she were placed in the best pasture possible. What is generally called a *luxuriant pasture*; that is, meadow land which produces an abundance of coarse grass; we consider by no means the best kind of vegetation to promote the object in view. The mare will afford much milk pastured upon such grass, but it will be found much inferior in quality to this fluid produced from the harder upland grasses, which contain more nutriment in a smaller space; this, with the addition of corn, daily, would answer the purpose, without giving corn to the young sucking foal: if the dam be fed in the manner just described, the foal could scarcely fail to thrive and become vigorous. A luxuriant pasture is apt to produce *roaring* in the highly or thorough-bred horse. A much esteemed friend of the writer, who was fond of a bit of blood, as well for the hunting field as for the course, took it into his head to manure his paddocks; they could not be understood as *upland*, and we cautioned him against the effects likely to result from thus imparting greater luxuriance to the herbage which grew in them. However, he persevered, and for some years afterwards, half the young things reared in these paddocks became roarers.

Having spoken of the evil effects of the present system of forcing young racers upon the course at too early a period, we may in this place be allowed to express our regret that it is likely to continue. We further regret that good stakes are not proposed and made for horses beyond the age of three years. The winners of all the present great stakes must be three year olds; when they are, as well as all superior horses, excluded, as it were, from the course. Some of the cups are open to them, it is true; yet most of these are handicapped; and we think that person guilty of an error in judgment who subjects a sterlingly-valuable horse to such a process, where he is doomed to labour beneath a weight which must reduce him to the level of a jade, and where, indeed, his superior pretensions are generally over-rated.

## AGRICULTURAL DISTRESS.

### TO THE MARQUIS OF CHANDOS, M.P.

It is very mortifying, my Lord Marquis, to find that at all the eatings, drinkings, and meetings, to talk (for that is all) upon the distress which now prevails throughout the agricultural interest, no one has taken the bull by the horns, or fairly submitted the real cause of that distress. They are always beating about the bush. The cause itself is well known to your Lordship, and to the kingdom at large; but somehow or other every one seems shy and very backward in coming forward to develop that cause, although they feel it is now disorganizing every species of property. It is that insatiate monster the National Debt, with its eight hundred millions of principal, its twenty-eight millions of interest, its reckless annual expenditure of sixteen millions, and its frightful unfunded debt of thirty millions. It is this insatiate monster which is withering and destroying all our most valuable institutions, has demoralized the labouring classes, degraded and disgraced the British flag, towed the proud Lord Durham unsaluted through the Straits of the Dardanelles in a filthy, smoky steam vessel, prostrated Turkey, uprooted and scattered the ill-fated Poles, snugly seated the enterprising French into the watch-box of Algiers, opposite Gibraltar, established the Prussian commercial league, will soon send forth a combined Russian, Dutch and American navy into the Mediterranean, and, perhaps, finally expel our flag and commerce from that sea into which, in better days, no nation upon earth dared to peep, without our especial leave and license. This is the monster—this is the cause which requires tackling, as well for the security of the landlords as the landlords; for be assured, my lord, the property of the one is no more secure than the property of the other; and I verily believe the Chancellor of the Exchequer sits daily at Whitehall shaking in his shoes, in expectation of a communication from the Old Lady in Threadneedle-street (sent, perhaps, by a dirty Jew orange boy), to inform him Exchequer Bills are at a discount, and Crown debtors paying them into the bank for taxes, the herald of a convulsion too frightful to contemplate—the restoration of barter. My Lord, for nearly 30 years I have foretold the present state of things, and receive for my reward, neglect, and even persecution, in quarters I had rendered, and still could render, the most essential services. I forgive it from my heart. The fulfilment of my predictions conveys to me no pleasure. But, my Lord, is there no remedy which can restore this country to the prosperous, moral, and religious state of 1792, and make it once more respected abroad, and united at home? I consider it by no means difficult if proper measures are honestly adopted. Let a given number of men, of good practical common sense, of great moral courage, of undoubted integrity and unremitting industry, your lordship at their head, be nominated by the country, or a committee appointed by both Houses of Parliament, if it be preferred, to draw up an honest "*Bill of Sacrifices*," taking as their

basis and guide the admirable Statute of Mr. Pitt, called the Consolidated Fund Act, passed in 1797, the Land Tax Remission Act passed in 1787, and the National Expenditure in 1792. Let them ascertain our ways and means, abolish party, and make it an indictable offence to assume nicknames, whether Tory, Whig, or Radical. Let this Bill, so prepared, be submitted to the consideration of the country, and when by combined wisdom and honest intentions it is perfected, let it be laid before the King (God bless him), in the humble hope he will (thereby securing the safety of the throne), forthwith forward it to both Houses of Legislature, accompanied by his "*congé d'élire*" to pass it without delay. When struggling for a seat in Parliament under the most adverse circumstances, this, and this alone, was my ultimate object. In such a safe and salutary remedy I should still be most happy to co-operate to the utmost of my humble ability. But, although I have no hope of such a consummation, yet, come what may, I will never spend my time, or waste my breath, with the little shilling men, the currency men, the crotchethongers, or the political economists, who will meet and talk, talk and meet, till we are reduced to the state of the Christians at Constantinople, debating points of faith while the infidels were battering down their gates.

The importance of the subject will, I trust, plead a sufficient excuse for using your name to a communication which I intend to make public, not being able, from official duties, to attend the general agricultural meeting in London.—Believing me in great sincerity your Lordship's very obedient and faithful servant,

SAMUEL WELLS,

6, Sergeant's Inn, Dec. 7.

## MURRAIN, COMMONLY CALLED BLACK-LEG.

By Mr. JOHN TOMBS, *Pershore.*

(From the *Veterinarian.*)

*Sep. 7th, 1834.*—I was requested by a farmer, near Eversham, to look at a calf that was very lame in the near fore-leg. When I saw him he was lying down and moaning; pulse very quick and rather weak; dribbling from the mouth; severe lameness of the near shoulder, with a swelling and crackling noise of the part. I bled copiously, and inserted several setons over the swelling. The skin was quite insensible, as the calf did not evince the least pain when the setons were inserted. I gave sulph. magnes. 6 oz.; zingiber oz. ss: the animal immediately vomited it all up. I then horned down a quantity of tepid water, which shared the same fate.

After repeated doses of physic were given, purging took place.

*14th.*—I was surprised to hear the animal was living, and the setons discharging. Givo vegetable tonics.

*Oct. 3d.*—I revisited my patient, who appeared cheerful. It ate and drank well: pulse 40. On opening an abscess at the inferior part of the scapula I discovered some rotten flesh; I traced this putrid flesh by cutting through the common integuments to the spinous process of the fourth or fifth dorsal vertebra: the greater part of the antea and postea spinatus and trapezius muscles was completely decayed, and I removed it with the scalpel, leaving the scapula in some places quite bare; the spine of the scapula about its middle was diseased, which I excised. During the operation hemorrhage took place from two small arteries, which was suppressed by ligatures; a ghastly chasm was left in the shoulder, which I filled up with tow previously dipped in tinct. myrrh, and confined it by sewing the integuments

as closely together as possible. In four days the stitches were cut, and the tow removed; the wound had a healthy appearance, with the exception of the diseased part of the spine of the scapula, to which a solution of zinc was applied. Digestive ointment to the sore.

17th.—The reparative process going on rapidly.

25th.—The spine of the scapula has partially exfoliated. On examination I found a sinus; I enlarged it, and extracted a portion of bone, and used a solution of zinc.

Nov. 20th.—The wound has healed some time; the calf is now upright, sound, and healthy.

### PAPER CURRENCY.

SIR,—A worthy friend of mine, who is a zealous advocate for a new paper currency, asserts that it would be a just and equitable reversal of the evils inflicted by the restoration of cash payments through the famous bill of Sir Robert Peel. If there is any force in the observations made in my former letter, such a measure would be no reversal, at all, of any alleged injuries, but the infliction of a series of new ones, which would fall with the heaviest weight on the heads of their projectors. The restoration of cash payments was a just, and honourable measure, to which the national faith was pledged, and which was called for by none more vehemently, than by the opposition, or liberal members of Parliament. It was, however, the occasion of much distress and inconvenience, chiefly by the increased burthen which it gave to the public debt. For if the bill of Sir Robert Peel had not passed, the depreciation of the bank paper would have taken a most rapid course, and none can tell the point which it would have reached. I heard it asserted, by some leading persons at the Bank, that gold would have immediately risen to 6*l* the ounce. It is well known that in proportion to the depreciation of notes, would have been the lightening of the debt in which they were paid and *vice versa*, but that all the pecuniary concerns of the kingdom would have remained in a state of ruinous instability. I have always considered that return to a metallic currency, under all the circumstances of the case, to have been an act unparalleled in his history of nations or of statesmen. But it had all the inconvenience which attend every extravagant debtor, when he endeavours to settle his accounts, and pay his debts. I have thought that it was a situation in which our equitable departure from strict justice might have been vindicated, and that if the new sovereigns had been coined at 4*l* the ounce, instead of the old standard, the expectations of the nation would have been fully answered, and many evils avoided. This would, however, have been the composition, and not the payment of a debt, so the course pursued was at the least most honourable. I may say, moreover, that I never saw the wisdom or necessity of the sort of war which was proclaimed against paper. If the payment of one pound notes in cash on demand, had been enforced by a summary process, I see no valid reason for their prohibition. They would even so, have served to break the shock. But the establishment of a compulsory currency, under present circumstances, would in my judgment, be an act of gratuitous wickedness and folly.

Then, can the occupiers of the land have no national assistance? Sir Thomas Lethbridge has I think wisely confined their hopes to an alteration in rents, a composition for tithes, and a change

in the corn laws. I will take the inverse order; and I entirely agree with you, that though the change of the system would occasion some present inconvenience, (and that perhaps not so great as is apprehended) yet that its continuance will be increasingly injurious. The graduated scale of duties was one of Canning's showy plausibilities, which overlooked one of the most important circumstances of the case. This artificial scale connected with the bonding system, throws all the power of speculation from the home to the foreign corn, and subjects the farmer and the consumer to an uncalled-for depreciation at one time, and an injurious rise at another, before the speculators can reap the fruits of their outlay. I need not explain to you how the system works both ends of the speculation against the public. I even doubt whether it is not injurious to the importing merchants; for the magnitude of the interest at stake has produced results which, with kindly seasons, have for a long time hindered the speculators from obtaining their object of high prices and low duties, whilst the store of bonded corn serves as an incubus to prevent the English farmer from obtaining those prices, which the state of things would otherwise have naturally afforded them. The importers get all or nothing—the farmers, as a body get nothing at both ends—and the public are the dupes and the victims of this lying system of plausibilities,

“Which keeps the word of promise to our ear,  
And breaks it to our hopes.”

For these reasons I hold that this first hope to the agriculturists arises from an entire freedom in the importation and exportation of corn, subject to such constant and moderate duties as they have a right to demand, and the nation is called upon to grant.

As to tithes, the agriculturists should certainly seek for the establishment of a fixed system, by which gathering them should be prevented, as well as arbitrary alterations. But it seems to me that they have less interest in their actual amount. The great impediment to a reform has hitherto arisen from the apprehension on the part of the occupiers, that the tithes would be increased by any proposed valuation—and so they would. But this would be merely a temporary evil, and might be met by a provision, that wherever the tithes were increased under a lease, it should be deducted from the rent. Afterwards the comparative rate of tithes would not signify, for the rent will always be regulated by them. If by any legal provision the tithes were permanently lessened the rents would rise, and the contrary if they were increased. The landlord will always get all that the tenant can afford to pay—and this being the natural condition of landlord and tenant, cuts off any hope of legislative interference, or of voluntary agreements to reduce rents.

J—S.

Dec. 9, 1835.

The poor rates are in a course of trial.

The Jersey farmers, following the example of their neighbours, are petitioning the States for a prohibition of French produce, and for other measures to protect the agriculture of the country. They especially complain that the exportation to England of potatoes, which are the principal agricultural produce of the country, is now at an end, owing to the extensive cultivation of the root.

**SMITHFIELD CLUB CATTLE SHOW.**

The thirty-seventh annual adjudication of prizes, and of gold and silver medals to fat cattle, sheep, and pigs, took place on Thursday, Dec. 10, in the Repository-yard in Goswell-street.

The stewards, Mr. Thomas Chapman, Mr. Thomas C. Beasley, and Mr. Samuel Druce, classed and arranged each animal in the exhibition, and a number is placed on the standings of those to which the judges have awarded a prize.

Those agriculturists who have been favoured by a view of the grand exhibition, state this is one of the best that has taken place.

The judges, Mr. Samuel Bennett, of Bickering-park, near Woburn; Mr. Laxton, of Morbourn, near Stilton; and Mr. Edward Franklin, of Ascot, near Tetsworth, Oxfordshire, after deciding the prizes by the numbers affixed over the animals, requested the secretary to read to them from the certificates the names of the successful candidates, as follow:—

**CATTLE.—CLASS I.**

For the best ox of any breed, under five years old and no restriction as to feeding, awarded a premium of 20 sovereigns to Earl Spencer, for his four years and ten months old Durham ox, fed on hay, mangel wurzel, Swedish turnips, and oil-cake.

A silver medal to his Lordship as the breeder of the above ox.

The other competitors in Class I. were, Alexander Robertson, Esq., of Balmacassie, near Ellon, a four years and six months old Aberdeen and short-horned ox, bred by John Garden, Esq., of Mill Ardlethen, near Ellon, Aberdeen; fed on turnips and grass, and travelled by steam-boat to London.

Sir Francis Lawley, of Middleton Hall, near Coleshill, Warwickshire, a four years and two months old Hereford ox, bred by him, and fed on hay, turnips, meal, and oil-cake. Highly commended by the judges.

Stafford O'Brien, Esq., of Blatherwycke-park, near Wansford, Northamptonshire, a four years and six months Hereford ox, bred and fed by ditto, and fed on hay, carrots, turnips, beans, meal, and oil-cake. The ox was commended by the judges.

James Trevor, sen., Esq., of Broughton House, near Aylesbury, for his four years and eleven months old Hereford ox, bred by John James, Esq., of Wootton, near Kingston, and fed on grass, hay, and oil-cake. Commended.

William Trinder, Esq., of Wantage, Berks, a four years and nine months old Durham steer, bred by Lord Sherborne, of Sherborne, and fed on grass, hay, turnips, and wheatmeal. The judges commended this animal.

**CLASS II.**

For the best ox of any breed under six years of age, weight ninety stone and upwards, not to have had cake, corn, or distillers' wash, previous to the first of August. The first premium of twenty sovereigns to James T. Senior, Esq., near Aylesbury, for his four years and two months old Hereford ox, bred by the Rev. J. R. Smythers, of Lynch-court, near Leominster; fed on grass, hay, and 600lbs. of oil-cake.

A silver medal to Mr. Smythers as the breeder of the above ox.

The second prize of ten sovereigns, to John Beasley, Esq., of Chappell Brompton, near Northampton, for his five years and three weeks old short-horned ox; bred by T. C. Beasley, Esq., of Harleston, near Lincoln, and fed upon hay, turnips, and 1,715lbs of oil-cake.

The other competitors in this class were as follow:—Sir William Wake, Bart., of Courteen-hall, near Northampton, a four years and eleven months old Hereford ox; bred by S. Smith, Esq., of Stanton Lacey, near Ludlow; fed upon grass, hay, and 1,379lbs of oil-cake.

R. W. Baker, Esq., of Cottesmore, near Stamford; a four years and two months' old Durham ox, bred and fed by him on grass, hay, carrots, turnips, about four bushels of bean-flour, and 1,120lbs of oil-cake.

**CLASS III.**

For the best ox of any breed under five years of age; under ninety and above seventy stone weight, not to have had cake, corn, &c., as in Class II. The first prize of fifteen sovereigns to the Marquis of Tavistock, of Oakley, for his four-years and two months old Hereford ox; bred by Mr. F. Back, Newhouse, near Ludlow; fed on grass, hay, turnips, mangel wurzel, one quarter of bruised oats, two bushels of meal, and 1,100 lbs of oil-cake.

A silver medal to Mr. Bach, as the breeder of the above ox.

The second prize of ten sovereigns was awarded to J. T. Senior, Esq., for his three years and eight months old Hereford steer, bred by William Jellicoe, Esq., of Beigherton, Staffordshire; fed on grass, hay, and 500lbs of oil-cake.

The other competitors were Mr. John Slater, of Haselbeach, near Kettering, a three years and eight months short-horned ox, bred by Mr. William Bryan, of Six-hills, near Loughborough; fed on grass, hay, and 620lbs of oil-cake. Highly commended, but disqualified on account of overweight in this class.

J. M. Bailey, Esq., of Shenley House, near Stoney Stratford, for his three years and two months old Hereford ox, bred by George Wells, Esq. of Creden Hill, near Hereford, and fed on grass, hay, and 500lbs of oil-cake. Commended.

Sir William Wake, Bart., of Courteen Hall, a three years and eleven months old Hereford ox, bred by E. C. Jeffries, Esq., of the Grove, near Pembroke, Hereford; fed on grass, hay, and 946lbs of oil-cake.

**CLASS IV.**

For the best ox of any kind, not exceeding four years and three months, under 70 stone weight, and not to have had corn, cake, &c., as in Class II. The first prize of 10 sovereigns to J. T. Senior, Esq., for his three years and seven and a half months old Hereford ox, bred by William Jellicoe, Esq., of Beigherton, and fed on grass, hay, and 600lbs of oil-cake.

A silver medal to Mr. Jellicoe as breeder.

Second premium of five sovereigns to William J. Bailey, Esq., of Shenley House, for his three years and six months old Hereford ox, bred by W. H. Apperley, Esq., of Withington, near Hereford, and fed on grass, hay, and 500lbs of oil-cake.

The other competitor was Mr. Joseph Kirkby, of Epping Bury, a four years old Highland Scot—fed on grass, hay, and 400lbs of oil-cake.

**CLASS V.**

For the best fat cow or heifer under five years of age, free-martins and spayed heifers not qualified. A prize of fifteen sovereigns to Mr. Geo. Peach, of Great Houghton, near Northampton, for his four years and eleven months old Durham cow, bred by Mr. Dent, of Milton; fed on turnips and oil-cake.

The other competitors were, R. Wm. Baker, Esq., a four years and ten months Durham heifer, bred by himself, and fed on grass, hay, carrots, turnips, bean-flour and oil-cake. Commended.

Mr. Wm. Towns, of Kingston, Surrey, a two years and nine months old Durham heifer, bred by himself, and fed on hay and oil-cake, and never had a calf. Commended.

Richard Rowland, Esq., of Creslow, near Aylesbury, a four years and nine months old Hereford cow, bred by Wm. Clarke Esq., of Hennor, near Leominster, and fed on grass, hay, and oil-cake, never had a calf. Commended.

**CLASS VI.**

For the best fat cow of five years old and upwards, free-martins and spayed heifers not qualified. A prize of fifteen sovereigns to Mrs. Strickland, of Tewkesbury, Gloucestershire, for a five years and one month old Durham cow, bred on her farm at Tewkesbury.

No other competitors in this class.

**SHEEP.—CLASS VII.**

For fat long-woolled wethers, one year old, that have never eaten corn, cake, seed, or pulse. A prize of ten

sovereigns to Mr. Wm. Pawlett, of Barmouth, near Stamford, for his three twenty months old Leicester wethers, bred and fed by him.

The other competitor was William Faulkner, Esq., of Bury Barns, near Burford, three twenty-one months old long-woolled wethers, bred and fed by him.

#### CLASS VIII.

For fat long-woolled wethers, one year old, any how fed. The first prize of ten sovereigns to Wm. Pawlett, Esq., for three twenty months old Leicester wethers, bred and fed by him.

The second premium of five sovereigns to Richard Bird, Esq., of Beeston, Biggleswade, for his three twenty-one months Leicester wethers, bred and fed by him.

The other competitors are Mr. Robert Masters, of Weedon Beck, near Daventry, three twenty-one months Leicester wethers, bred by Mr. John Polterton, of Stone, near Daventry.

Mr. Henry Stimson, of Oakham, near Stamford, three under twenty-two months old Leicester wethers, bred by him.

#### CLASS IX.

For fat long-woolled wethers, two years old, any how fed. A prize of ten sovereigns, to Mr. John Painter, of Burghley, near Oakham, for his three thirty-two months old Leicester wethers.

The other competitors were, Mr. R. Rowland, of Creslow, near Aylesbury, three thirty-two months old Leicester wethers, bred by J. H. Langston, Esq., of Surslon House, near Chipping Norton. Commended.

Richard Foster, Esq., of Southborn, near Driffield, three under thirty-three months old Leicester wethers, bred by him. Commended.

Mr. H. Stimson, of Oakham, three under thirty-four months old Leicester wethers, bred and fed by him.

Geo. Worth, Esq., of Newnham, near Rugby, three thirty-three months Leicester wethers, bred and fed by him; and

William Taylor, Esq., near Chigwell, three thirty-two months old Cheviot wethers, bred and fed by him.

#### CLASS X.

For fat short-woolled wethers, one year old, any how fed. The first prize of fifteen sovereigns to Stephen Grantham, Esq., of Stoneham, for his three twenty months old South Down wethers, bred and fed by him; and a silver medal as the breeder thereof.

The second prize of five sovereigns to the Duke of Richmond, for his three twenty months old South Down wethers, bred and fed by him at Goodwood.

The other competitors were, Thomas Ellmore, Esq., of Beddingham, Sussex. Three twenty months old South Down wethers, bred and fed by him. Highly commended.

The Hon. Peter J. Locke King, of Woburn, near Chertsey, three twenty-one months old South Down wethers, bred and fed by him.

Lord Exeter, three South Down wethers, twenty-one months old, fed and bred by him at Burghley,

#### CLASS XI.

For fat short-woolled wethers two years old, any how fed. The first prize of ten sovereigns to Stephen Grantham, Esq., for his three thirty-two months old South Down wethers, bred and fed by him; and a silver medal as breeder of the same.

The second premium was awarded to Wm. Ridge, Esq., of Upper Stoneham, near Lewis, for his three thirty-two months old South Down wethers, bred and fed by him.

The other competitors were, John Ellman, or Glynde, near Lewes, for his three thirty-two months old South Down wethers, bred and fed by him. Highly commended by the judges.

This pen of sheep won a match of ten sovereigns against three thirty-two months old South Down wethers, bred and fed by T. W. Coke, Esq., of Holkam.

The Duke of Richmond: three South Down wethers,

thirty-two months old, bred and fed by him. Highly commended.

Three South Down wethers, thirty-two months old, bred and fed by Thomas Ellman, Esq.—Commended.

Three thirty-three months old South Down wethers, bred and fed by Mr. Jonas Webb, of Barbraham, near Cambridge. Commended.

James Mardell, Esq., of Wheatherhamsted, three thirty-three months old South Down wethers, bred by Sir T. C. Miller, Bart., of Troyle, near Alton, Hants.

The Honourable Peter Locke King, three thirty three months old South Down wethers, bred and fed by him at Woburn, near Chertsey.

#### PIGS.—CLASS XII.

Pigs of any breed, of the same litter, above four and under nine months old. The first prize of ten sovereigns was awarded to the Earl of Harborough for his three Neapolitan and Chinese pigs, aged 22 weeks, bred and fed by him on barley, wheat flour and skim-milk. A silver medal as the breeder thereof.

The second prize to Mr. Elias Guerrier, of Stepney-green, Mile-end, for his three Norfolk pigs, bred by Mr. William Dowling, Twig-folly, Mile-end; fed on milk and oatmeal, aged twenty-seven weeks.

Mr. F. Farmer, of Thydon-mount, near Epping, for his twenty-eight weeks old Neapolitan and Surrey pigs, bred by Mr. G. Creswell, of Sutton, and fed on barley meal, milk, and steamed potatoes. One of them commended.

Mr. G. Chandler, Kingston, Surrey, three seventeen weeks and six days old Surrey pigs, bred and fed by him on meal, milk, and water. Commended.

William Orchard, Esq., of Hornsey, three twenty-one weeks and five days, old Essex and Hertfordshire pigs, bred and fed by him on barley meal, rice, flour, and wash. Commended.

Mr. Luke Guerrier, of Stepney-green, Mile-end, three thirty-two weeks old Essex pigs.

Mr. William Temple, of Heston, Middlesex, three thirty-two weeks old Berkshire pigs, bred and fed by him.

#### EXTRA STOCK CATTLE.

A silver medal to the Marquess of Exeter, for his three years and three months free martin Durham heifer, which also won the 101 match against Earl Spencer's three years and six months free martin Durham heifer, his Lordship allowing the Marquis six stone for the difference of age. The judges highly commended.

Earl Talbot's five years old Hereford ox. Highly commended.

#### EXTRA STOCK SHEEP.

William Pawlett, a silver medal for his twenty months old Leicester wether.

A silver medal to the Duke of Richmond for his forty-one months old South Down wether.

#### EXTRA STOCK PIGS.

A silver medal to George Chandler for his twenty-two months old Surrey pigs.

The above is one of the most splendid shows ever witnessed. The yard is brilliantly illuminated with gas, so that the visitors can witness the exhibition with as much facility in the evening as by day-light.

#### THE DINNER.

On Monday, December 14, the members of this Club, in celebration of its thirty-seventh anniversary, dined at the Freemasons' Tavern. The company was more numerous than it has been for many years past. Earl Spencer presided, supported on the right by the Marquis of Chandos, and on the left by the Chancellor of the Exchequer.

The cloth having been removed, the following toasts were drunk:—"The King," "The Queen and Royal Family," and "Success to the Smithfield Club." The

noble chairman then proceeded to distribute the prizes to those whom the judges had declared to be the successful competitors. The announcement by his lordship of the award of the great prize of twenty guineas to himself for his Durham ox, was received with great cheering.

Mr. HILLIARD proposed "The health of Earl Spencer, as a successful competitor." Three times three.

His LORDSHIP, in returning thanks, said he believed that the advantage to the country of such a club as this was very considerable. It enabled farmers to see the perfection to which cattle and sheep could be brought. He should think that there were few who could attend the exhibition, without observing some points of excellence which had not been submitted to their examination before. Were there not such a club in existence, he feared the breed of cattle and sheep would rapidly degenerate. (*Cheers.*) When his lordship announced the prize to Mrs. Strickland,

Mr. HILDYARD rose, nobody being present to answer for Mrs. Strickland, to return thanks for the honour conferred upon her, and as it was rather an unusual thing for a lady to be a breeder and feeder of cattle, he thought it would be interesting to inform the meeting who Mrs. Juliana Strickland was. Mrs. Strickland was the daughter of the late Sir G. Strickland, who was celebrated for his breed of Durham cattle even before the time of the celebrated Messrs. C. and R. Collins. At the baronet's death there was a very large herd of his breed of cattle. There were two or three sons, but as neither of them had a taste for attending to the stock, the two daughters, out of respect to their father's memory, kept up the breed, and brought them from the north to a beautiful situation near Tewkesbury, where they have continued the breeding and feeding of cattle, an excellent specimen of which has been exhibited in the cattle-yard. Gentlemen, I believe you will agree with me, that it is much to the credit of these ladies, who, instead of following the habits of their own class in society, in rolling about the metropolis paying unmeaning morning calls, devoted their mornings in looking after their stock, and distributing comforts to the surrounding poor. I think, gentlemen, you will join me in good wishes that Mrs. Strickland may long be permitted to follow that useful course of life which she has pursued for many years past.

In announcing the prize obtained by Mr. Grantham for his Southdown sheep, Earl Spencer spoke in terms of high commendation, not only of the symmetry of the animals, but also of the beautiful texture of the wool. It is no small proof of the excellence of Mr. Grantham's stock, that he should have obtained the superiority over Mr. Ellman's sheep, which had previously gained a 10*l.* match against Mr. Coke.

The distribution of the prizes having been completed, "The Duke of Richmond's health" was drunk with three times three.

The CHAIRMAN then read a list of the names of the new subscribers; that of the Marquis of Chandos, proposed by his lordship, was amongst them. The list was an unusually long one, and his lordship congratulated the club on having obtained so great an accession to their numbers.

The Marquis of CHANDOS said he rose with great pleasure to propose "The health of their Chairman." (*Cheers.*) The noble lord's health had been already drunk, in his capacity of a successful competitor; he now called on them to drink the health of his lordship, as the "President of the Smithfield Club." Drunk with three times three.

The CHAIRMAN said, he did not expect to be called on a second time to return thanks. He had received their approbation in one capacity—he again was honoured with it in another; and he really did not know which to prefer. (*A laugh.*) He was pleased with his prize; he was also much pleased to occupy the situation of President of this Club. It was an office that he thought conferred great honour on the possessor. For the farmers of England to have chosen him as President of this, the principal farmer's club in the country, was one of those honours to which he attached consi-

derable importance. He was always most anxious for the prosperity of the farmers. (*Applause.*) He was a farmer himself, but he hoped that consideration alone did not influence him. He thought it of importance to the prosperity of this country that agriculture should prosper. (*Cheers.*) And the reason why he should always be ready to exert himself to promote the interests of agriculture was, because he derived much pleasure from it.—He entered into its pursuits; he was in the same boat with them; he engaged as a practical farmer to a considerable extent; then he was dependent for his income on farming, for his property was all derived from the land. (*Applause.*) He might have differed with some as to which was the better course to pursue for the advancement of the interests of agriculture, but his and their object was the same, and he assured them that none could have more deeply at heart than he had the interests of the farmers of the country. (*Cheers.*)

The following toasts were then drunk:—"The Stewards," "The Judges of the Stock," "The unsuccessful Candidates," and "Mr. Coke."

The CHAIRMAN gave the "health of Lord Chandos."

The Noble MARQUIS said he considered his election this day a great honour, and he assured them that he would go every length possible to promote their welfare. (*Cheers.*)

"The Manufacturers and Commerce of the country;" "Prosperity to the Labourers of England;" "Live, and let Live" were next drunk, with much applause.

Mr. HILLIARD proposed the "health of the Chancellor of the Exchequer." One or two individuals attempted to get up a cry of "O'Connell," but it completely failed; the cheering was general and most cordial.

The CHANCELLOR of the EXCHEQUER said he would return thanks for the honour just conferred on him, if they would allow one to intrude upon them who did not belong immediately to themselves; but who, nevertheless, did belong to a country which was a part of the United Empire. (*Hear.*) He came amongst them, not only for his private gratification, but also to derive from them the benefit of example and information. He should go to his countrymen and say, "elsewhere in that great country to which we look for example, I have seen the various classes of society united—political distinctions cease—and all rushing onwards in the discharge of one common duty." (*Cheering.*) He thanked them for the honour done him, and he trusted they would allow him to attach himself to them, so that he might in future attend as a member of the Smithfield Club. (*Great cheering.*)

The CHAIRMAN then proposed the "health of Mr. Bennett," the late M.P. for Wilts.

Mr. BENNETT returned thanks.

Two or three other toasts were drunk, after which the company withdrew.

SUSSEX.—The piece of plate offered for the best cultivated farm in Sussex, at the last cattle show at Lewes, was proposed in consequence of similar premiums in Scotland, and this Mr. T. Ellman kindly promoted by announcing his intention of becoming a competitor. Berwickshire, Roxburghshire, and the Lothians have long been greatly distinguished for the advanced state of their agriculture, called mixed husbandry, or live-stock and tillage united, and the result is permanent fertility, from the large quantity of manure supplied by the cattle in the yards, which are well managed, the result of education, practical skill, and sufficient capital, and not from felicitous of climate, in which the southern counties have a decided advantage. It is also much to be attributed to the patriotic, liberal, and active patronage of the proprietors at large, particularly of the Dukes of Northumberland, Roxburgh, and Buccleuch, &c., and the establishment of agricultural societies. The farms on an average consist of 500 acres, and some much larger, let on leases of 15, 20, and 30 years, and many young gentlemen from various parts of England are received for instruction, which cannot be sufficiently learnt from books, though Mr. Robert

Brown's *Treatise on Agriculture and Rural Affairs* can be recommended, and their education is commonly completed by attending a course of agricultural chemistry at Edinburgh. In regard to the conditions of farm servants, those unmarried are generally lodged and boarded in the farmers' dwellings, and those married are supplied with a cottage and vegetable garden each, belonging to the farm, receive 4*l* in lieu of keeping sheep as formerly, and a specified number of bushels of corn, with the keep of a cow, purchased by themselves. And in return they work in any way directed; and have to keep a daughter or woman full grown, ready also to work when needed on the farm, at from 8*l* to 1*s* a-day. Thus being paid principally in corn, the money value of their wages rises and falls without inconvenience to those labourers with their masters' gains at market; and the result is mutual confidence and attachment, orderly conduct, and freedom from incendiarism.

### TO THE EDITOR OF THE FARMER'S MAGAZINE.

"Nature, in her productions slow, aspires  
By just degrees to reach perfection's height."  
SOMERVILLE.

Sir,—The annual show of fat stock at Arundel, took place on Tuesday, the 8th inst., when the following premiums were awarded:—A piece of plate, value ten pounds, to the owner of the best fat ox, without restriction as to feeding, the gift of his grace the Duke of Norfolk, to Mr. Hugh Penfold, of Wiggentholt. A piece of plate, value ten pounds, to the owner of the best fat Sussex ox, fed on succulent food only, the gift of the Corporation of the Borough of Arundel, to Mr. George French, of Angmering. A piece of plate, value ten pounds, to the owner of the best fat steer, under five years old, without restriction as to feeding, the gift of Lord Dudley Stuart, M.P., to Mr. John Drewett, of Peppering. A piece of plate, value ten pounds, to the owner of the best fat Sussex steer, under five years old, fed on succulent food only, the gift of the Earl of Surrey, to Mr. Thomas Duke, of Lyminster. A piece of plate, value seven pounds, to the owner of the best fat Welsh runt, without restriction as to feeding, to Mr. Challen, of Hardham. A piece of plate, value five pounds, to the owner of the best fat Welsh runt, fed on succulent food only, to Mr. John Duke, of Courtwick. A piece of plate, value five pounds, to the owner of the best fat Scotch runt, without restriction as to feeding, to Mr. Harwood, of Amberley. A piece of plate, value seven pounds, to the owner of the best fat cow, five years old or upwards, bred in Sussex, without restriction as to feeding, the gift of the tradesmen of Arundel, to Mr. James Field, of Arundel. A piece of plate, value seven pounds, to the owner of the best fat open heifer, under five years old, bred in Sussex, without restriction as to feeding, the gift of the tradesmen of Arundel, to Mr. Searle, of Amberley. A piece of plate, value five pounds, to the owner of the best fat open heifer, under five years old, bred in Sussex, and fed on succulent food only, the gift of the tradesmen of Arundel, no entry. A piece of plate, value five pounds, to the owner of the best pen of five full-mouthed, or six-tooth fat Southdown wether sheep bred in Sussex, without restriction as to feeding, the gift of the tradesmen of Arundel, awarded to Mr. W. Newland, of Tortington, a gentleman famous for many years past as a successful competitor for the premiums at this annual exhibition of fat stock. A piece of

plate, value five pounds, to the owner of the best pen of five four-tooth fat wether sheep of any description, fed on succulent food only, the gift of the tradesmen of Arundel, to Mr. George Burcher, bailiff to Miss Bushby, of Goring. A piece of plate, value five pounds, to the owner of the best pen of five two-tooth fat Southdown wether sheep, without restriction as to feeding, to Mr. John Duke of Courtwick. A piece of plate, value five pounds, to the owner of the best pen of five fat ewes of any description, each having brought up a lamb since the 1st of December, 1834, without restriction as to feeding, to Mr. Henry Upton, of Binsted. A piece of plate, value five pounds, to the owner of the best pen of five fat Southdown ewes, each having brought up a lamb since 1st of December, 1834, without restriction as to feeding, to Mr. Thomas Suter, Tortington. Three of the above premiums were awarded to his grace the Duke of Norfolk, but on this event, as well as on former occasions, his Grace had directed that the premiums awarded to his stock should be given to the stock next in merit. The stock exhibited by his Grace on this day certainly reflected the highest credit on Mr. Corney, the farming steward, and forcibly illustrated the invincibility of practical knowledge with steadiness and industry of purpose, when combined with adequate means of pursuit. The one-and-twenty months old Southdown wether sheep, shown by Mr. John Duke, of Courtwick, were universally admired. They were bred by Mr. Wm. Oliver, of Courtlands, and were a fine specimen of size, fatness, and weight, and quality of wool. They were estimated to weigh fifteen stone, of eight pounds to the stone. I mention this latter circumstance for the especial information of a gentleman living at Pembroke, whom I once had the pleasure of meeting, and I trust a friend of mine in that neighbourhood, who is a reader of your magazine, will call his attention to the fact.

The Earl of Surrey presided at the dinner, and presented the premiums to the several successful candidates. The judges were, Mr. Harmer, of Brighton, Mr. Maidwell, of Epsom, and Mr. Gains, of Portsmouth; and the stewards, Mr. John Heasman, of Angmering, Mr. Allin, of Arundel, and Mr. John Halsted, of Walberton. The noble chairman was supported on his right by the Lord Lieutenant, Sir Richard Hunter, and Captain Pechell; and on his left, by W. G. R. Graitwicke, Esq. the Rev. Edward Turner, and the Rev. Charles Kinleside. The company consisted of a numerous attendance of the gentry and yeomanry of the neighbourhood.

There were also several premiums awarded to industrious labourers and shepherds producing satisfactory certificates of long service and good character; but in this department, which is so excellent in principle, the noble chairman expressed his intention of introducing several improvements, and this promise his lordship seems disposed to follow up with all promptness, as he has fixed a meeting, having this purpose in view, for the first Arundel market day in January. The noble lord appears fully to enter into the sentiments which the following paragraph contains, and which I have taken from a very clever little work, called "Cottage Comforts." "It is very desirable that the labouring classes of society should be respectable and comfortable in their circumstances; that they should be able to provide themselves with decent habitation, wholesome food, and suitable raiment. The happiness of every benevolent person is advanced by observing



and by promoting the happiness of those around him, and in proportion as its population is thriving and contented, in that proportion is a nation secured both from invading foes and internal discord."

Now this excellent plan of rewarding the meritorious labourer does advance the morals and promote the happiness of the better conducted part of our humble fellow creatures. My shepherd, I am proud to say, obtained a premium from the hands of the noble chairman for attentive and skilful conduct in his occupation. On my return home from the dinner, about 3 o'clock in the evening, I went into the man's cottage, for the purpose of congratulating him on his success, and although he was not in the house, I had no difficulty in discovering that he had been home and communicated the welcome intelligence. The countenance of his wife expressed everything which satisfaction could depict; and the happy looking children, with their bright eyes and smiling faces, quite satisfied that their father, from this event, was become the first man in the realm. Some days have now passed since the occurrence, but still the man, woman, and children are yet happy in the merits of the former having been acknowledged in so substantial a manner by his superiors.—The beef of this day, with the exception of a few large and plain oxen, sold off pretty readily at from 4s. to 4s. 1d. per stone of eight pounds; and the mutton from 4s. to 4s. 6d. The day was particularly favourable for the purpose, and the awards of the judges, together with the arrangements of the stewards, gave general satisfaction.

The Chichester Christmas Cattle Show was on the following day, Wednesday, the 9th inst., of which society his grace the Duke of Richmond is president, when the following premiums were offered:—

CLASS 1. Oxen or steers of any breed, that shall not have had any cake, corn, meal, seeds, distillery wash, or grains, before the 1st of August, 1835.—To the feeder of the best fat ox or steer, a premium of 10*l*. To the feeder of the second best fat ox or steer, a premium of 7*l*. Neither of the above prices were awarded, the stock shown not being of sufficient merit.

CLASS 2. Oxen or steers of any breed, fed on succulent food only. To the feeder of the best fat ox or steer, a premium of 10*l*. To the feeder of the second best fat ox or steer, a premium of 7*l*. The first was awarded to Mr. James Hack, of Chichester, the second to Mr. Ring, of Petersfield.

CLASS 3. Runts.—For the best fat runt, fed on succulent food only, a premium of 10*l*. For the second best fat runt, a premium of 7*l*. The first was awarded to Mr. John Neale, the second to Mr. William Upton.

CLASS 4. Steers under four years of age, fed on succulent food only.—(Welsh runts not qualified to show in classes No. 1, 2, and 4.) To the feeder of the best fat steer, a premium of 7*l*. Awarded to Mr. John Mundy, of Petersfield.

CLASS 5. Fattened cows or heifers (free martins and spayed heifers not qualified), that shall not have had any corn, cake, meal, seeds, distillery wash, or grains, before the 1st of August, 1835.—To the feeder of the best fat cow or heifer, a premium of 8*l*. To the feeder of the second best fat cow or heifer, a premium of 6*l*. The first to Mr. Thomas Sherrin, of Petworth, the second to Mr. James Hack, of Chichester.

CLASS 6. A premium of 10*l*. to the feeder of the best pen of five full-mouthed, or six-toothed fat

Southdown wether sheep, without restrictions as to feeding.—Awarded to Mr. Rusbridger.

CLASS 7. To the feeder of the best pen of five four-tooth fat Southdown wether sheep, without restrictions as to feeding, a premium of 8*l*.—Awarded to Mr. William Upton.

CLASS 8. A premium of 8*l*. to the feeder of the best pen of five two-tooth fat Southdown wether sheep.—Awarded to Mr. Walter Calhoun, of Binderton.

CLASS 9. A premium of 8*l*. to the feeder of the best pen of five fat Southdown ewes, each having brought up a lamb since the 1st of December, 1834, without restrictions as to feeding.—Awarded to Mr. Walter Calhoun, of Binderton.

CLASS 10. A premium of 6*l*. to the feeder of the best pen of five fat ewes of any description, each having brought up a lamb since the 1st of December, 1834, fed on succulent food only.—No entry.

CLASS 11. A premium of 10*l*. to the breeder of the best pen of ten Southdown ewes in lamb, the quality of the wool and the completeness of the animals to be taken into consideration. The ewes are to remain in the flock and to be folded till within one month of the show.—Awarded to his grace the Duke of Richmond, who declined accepting the premium, which was then given to Mr. Walter Calhoun, of Binderton, as the owner of the pen of ewes next in merit.

CLASS 12. A premium of 8*l*. to the breeder of the best six-tooth Southdown ram, the quality of the wool and the completeness of the animal to be taken into consideration.—Awarded to Mrs. Huskisson, of Eartham.

CLASS 13. A premium of 8*l*. to the breeder of the best four-tooth Southdown ram, the quality of the wool and the completeness of the animal to be taken into consideration.—Awarded to Mr. Walter Calhoun, of Binderton.

In classes 6, 7, 8, 9, and 12, there was no competition, but in class 13, Mrs. Huskisson contended with Mr. Walter Calhoun. The gentleman, however, beat the lady hollow; a circumstance which speaks far more for the breed of his sheep than it does for the gallantry of his behaviour. The six-tooth sheep shown by Mr. Rusbridger, in class 6, were of the primest description, and obtained general approbation. There was also a show of boars for a bet of five pounds, between two amateurs of this sort of stock, living near Chichester. The judge appointed to decide this matter was a hog-jobber in the neighbourhood, but the contending parties seemed both determined to be the winner, and so flabbergasted the judge elect by the conclusive arguments they each advanced in favour of their respective animals, that the arbitrator at length concluded that there must be great merit on both sides, and so returned the deposit money to both of the competitors. All disinterested persons, however, thought that one hog came *too far north* for his opponent. The sum of ten pounds was liberally given by Mr. Osborne, to be awarded in three premiums to labourers producing certificates of long service, and bringing up their families without parochial relief. The first premium of five pounds was awarded to William Ayling, servant of Mr. Wyatt, of Chilham, for 29 years' service, and having brought up eleven children without any aid from the parish. The second premium of three pounds was awarded to Francis Humphrey, servant to Mr. Henry Sailer, of Langford; and the third premium of two pounds was given to Thomas Gardiner, servant to Mr. Dervey, of Appledram. This example, alike judicious and generous on the part of Mr. Osborne,

had the effect of setting this most desirable principle (of rewarding meritorious labourers) on foot, and sixty pounds were immediately subscribed to be devoted solely to this purpose next year, when a ploughing match, &c. &c. is to take place. At the dinner, which took place at the Swan, the noble president was supported on his right by the Earl of Surrey and Lord George Lennox, and on his left by Charles Dickens, Esq., and Lord March. The judges on this occasion were Mr. John Ellman, of Glynde, Mr. Northcote, of Tiverton, Dorsetshire, Mr. Gains, of Portsmouth, and Mr. Harmer, of Brighton.

I am, Sir,  
Your obedient and very humble servant,  
AGRICULTOR.

Sussex, December 17, 1835.

THE CURRENCY.

TO E. S. CAYLEY, ESQ., M. P., NORTH YORKSHIRE.

My dear Sir,—I turn from the out-pourings of party politics, and personal remarks, with great satisfaction to your letter, not that I have the vanity to suppose that any observations I may make upon the subject of the currency, would induce you to forego your opinions, but because it is agreeable to one who is inquiring after the truth, to compare his sentiments with those of another, who argues so reasonably and temperately upon the points under discussion; and I cannot but express a wish that the better cause had an abler advocate.

You take it for granted, that I do not deny, that when the Bank Restriction Act gave to the directors of the Bank of England the power to issue paper free from the liability to convert it into bullion, the probability was that they would do so.

I refer, therefore, to Sir J. Graham's pamphlet, for the purpose of comparing the two years issue of the Bank before 1797, with the two years after that period. The result is as under:—

Year.	£5 and upwards.	Less than £5.
1795	.... 13,539,163	....
1796	.... 10,909,694	....
	<u>24,448,857</u>	
1797	.... 11,506,445	.... 1,418,240
1798	.... 11,909,424	.... 1,465,450
	<u>23,415,869</u>	

Thus, in notes of 5*l.* and upwards, the Bank reduced their issues after the restriction act: if the 1*l.* notes be added, they increased them. This issue was probably made to supply the place of gold; and I find the opinion confirmed by the fact, that Bank notes, till the latter part of 1800, bore a small premium, as compared with gold. I can, however, afford to concede the point, for if the issue were less in 1795-6, than in 1798-9, the price of wheat was higher than in the latter period. This brings me to your propositions. "Prices are raised," you say, "by an increase in the quantity of circulating money the amount of commodities remaining the same, &c. &c. &c." Sir James Graham labours hard to prove this: he takes the amount of Bank of England notes and the price of wheat from 1792 to 1809, and places them in juxta position to each other: but it probably occurred to him, that, because two things were contemporaneous, it is scarcely a logical inference to assume that one is cause, and the other effect. He therefore takes the currency of one year, and the price of wheat in the succeeding year, but there are as many variations, contrary to the theory, in the one

case as in the other; and, if he had taken (which is a fair mode of trying the question) the price of wheat in one year, and the currency of the succeeding year, he would have been on nearly the same grounds, fully prepared to argue on either side of the question. He next takes two shorter periods from 1819 to 1822, and from 1822 to 1825; yet in these two tables, whether the currency and wheat of the same year be taken, or the currency of one year and the wheat of the preceding year; or, conversely, wheat and currency, the same result follows in each case. With perfect deference, therefore, to so high an authority, I submit that, on such premises, either opinion must be abandoned,—either is true, or both are true, which is impossible.

I have objected, in a former letter, to these practical views of the subject; which may be (I do not say they are) selected for the purpose of supporting previously formed opinions. You have, however, furnished me with a datum, in the case of the increase of gold from the American mines, on which the question may be fairly stated.

I read in your letter, that for 200 years before these mines were opened, the price of wheat was 10*s* the quarter, and that after this event, the quantity of gold was quadrupled: that wheat rose to 40*s* the quarter, and remained so for 200 years. I do not suppose that wheat was always 10*s* or 40*s* in each and every year; because the sun and the rain must have equally affected the harvests, as in these, our days; but that, taking the average, before and after the fresh supply of gold, the result was such as you have stated. I will, therefore, in accordance with this principle, take the currency and price of wheat for given periods, from 1793 to 1830; averaging the amount of Bank of England notes issued in each year, by the number of years in each period; and averaging the price of wheat in a similar manner. I take Bank of England notes, as the test of currency, on your authority; some greater tyro at figures than myself, may perhaps supply the remainder. I adopt Sir James Graham's figures, as far as they go, to 1819 inclusive: after that period, those of Marshall. I give your proposition a great advantage in this, because I take no notice of the gold issued, to avoid any difference of opinion as to the quantity in circulation. The first two periods contain six years each; the remainder, five years each, and the Bank of England notes are stated in millions only. The first year of the different periods is inclusive.

Average amount of Bank of England

Years	Notes. Millions.	Av. price of Wheat.
1. From 1793 to 1804	.... 14	.... 77 <i>s</i> .
2. From 1804 to 1810	.... 17	.... 78 <i>s</i> .
3. From 1810 to 1815	.... 24	.... 100 <i>s</i> .
4. From 1815 to 1820	.... 26	.... 77 <i>s</i> .
5. From 1820 to 1825	.... 20	.... 55 <i>s</i> .
6. From 1825 to 1830	.... 20	.... 61 <i>s</i> .

Or, again, I take the average amount of Bank of England notes, and the average price of wheat for 20 years before 1797; and the same also for the past year. They are as under:—

Years.	Average issue of Bank of England Notes. in Millions.	Av. price of Wheat.
1. From 1778 to 1798	.... 9	.... 48 <i>s</i> .
2. 1834	.... 18	.... 40 <i>s</i> .

From these statements, I am led to infer that the price of wheat is not governed by the amount of the circulating medium.

I may also observe, that the fall of prices com-

menced from the moment the Government ceased to borrow. In those loans a fictitious paper found a resting place, and the industry of the country was mortgaged to pay the interest of them. While this process was going on, and while a Government Contractor was in every market, the demand continually exceeded the supply, and prices rose; but the cause having ceased, the effect ceased also; nor will any tampering with the currency, by forced issues of paper, by whatever means produced without these, ever permanently raise them.

But the experiment was tried in 1816 and 1822; and your account of those transactions shows how it failed. The history was concluded in 1825, by the ruin of thousands, and by bringing the country within 48 hours of barter. Let us now pursue a wiser course; and do that in 1836, which ought to have been done in 1825.

Reduce the taxes, and the local burthens upon agriculture; and place them equally on the monied and the landed interests. Two tricks have already been played with the currency, and have failed—be ware of the third time. Whether the standard of value were rightly fixed by Peel's Bill, it were needless to inquire: a change would not undo an act of injustice, but would commit it afresh. Suppose the plan of depreciation to succeed to its fullest extent, it could only affect contracts already subsisting; for all future ones would immediately be regulated by it. The private creditor, who lent his hard cash, or the tradesman who gave credit but yesterday, would be deprived of their just due to the extent of the depreciation; if the object be to reach the Fund-holder, it were, at all events, more open and straight-forward to do it by direct, than by indirect means, and leave private creditors untouched. But the purpose may be attained honestly, if the monied class be made contributory, equally with other classes, to the general expenditure of the nation, and there is no just reason, why they should be exempt.

In conclusion, I beg to express a hope, (I own the motive to be a selfish one,) that our intercourse, which commenced in public, may be extended to the social communications of private life.

I remain, my dear Sir, very faithfully yours,  
Kesgrave, Dec. 16, 1835. R. N. SHAWE.

## A SMEARING MACHINE.

TO THE EDITOR OF THE WEEKLY JOURNAL.

SIR,—From the unprecedented demand for white wool to supply the increasing consumption of our manufactures, which is at this moment much greater than at any other period, since the introduction of the woollen manufacture into Scotland, a great proportion of the sheep farmers in the Border counties have been induced to abandon the practice of smearing their flocks with tar and butter, and to adopt the much-approved-of system of salving with powdered crude white arsenic, and black soap, in the proportion of one pound of arsenic to three of soap, which are mixed up with seventy bottles of water, and has been found sufficient for threescore and ten sheep, being at the rate of a bottle for each, the expense of which does not exceed sevenpence a score. However, in place of soap and water, I would with much confidence recommend that the arsenic should be mixed with butter and cocoa-nut oil, and only to that extent which is necessary to give fixity to the arsenic, which I have no hesitation in pronouncing, is a salve calculated to produce wool of the purest possible description. It is a well-known fact that a

successful lambing time very much depends upon the condition of the ewe; and it must appear evident to every one experienced in store-farming, that sheep under this treatment are much more likely to thrive in a stormy winter, or in a high and exposed situation, than those to whom the arsenic was applied with water and a mere fractional part of soap, and their wool will not only be considerably finer, but very materially increased in quantity, independent of any additional weight that may have been added by the application of the butter and cocoa-nut oil, and will be found to possess in a greater degree the felting properties, consequently much more valuable as a clothing wool, or indeed for the manufacture of any description of goods to which the material can possibly be applied. In consequence of the vessels of the skin in tups being in a state of high activity at the time of smearing, (the tups being then in season), the absorbent power on the surface of their bodies is very great, which explains the different degrees of effect which the smearing ingredients exerts on the ram in comparison with other kinds of sheep. It is well known that grease or any unctuous substance acts as a protection to the skin, from the power of any caustic or eating substance, which is unquestionably the nature of rock arsenic and other smearing materials. Of all salvings hitherto introduced for producing white wool, the arsenic is allowed to be decidedly the best. Mr. Murray of Kednure, and the Messrs. Oliver of Williamstoe, Peeblesshire, had the merit of being the first who tried the experiment in Scotland; the moment it is applied, all vermin of every description die instantly; and it is the opinion of many of the most experienced in sheep-farming, that stock under this treatment will in a very great measure be exempted from the loup-*ing-ill*, a disease which kills thousands annually upon lands which are much infested with tick, and a slight repetition of the salve early in March upon the *forespald* of the sheep would more than probable be attended with the most beneficial effects. From the nature and properties of the composition, many of the diseases which unsmearing flocks are liable to be infected with, are at once eradicated or prevented by the application of the salve, which also destroys all inclination for rubbing against foggy or grassy banks, and thereby prevents the wool from getting imbedded with impurities which are not unfrequently found to such an extent, that the wages of labour in picking it sufficiently, adds so much to the price, that too often the manufacturer is obliged to apply it to an inferior purpose, and even when the material has been carefully looked over by the most discerning eye, previous to its being submitted to the process of manufacture, it frequently happens that thousands of the impurities make their appearance in the finished article, which in a great measure renders it unfit for the purpose for which it was intended. Sheep salved in this manner are seldom or never found to die in consequence of their falling awl, or the wool to peel off previous to clipping time; however, many and very frequent objections have been made to this mode of smearing, on account of breaking or shading of the wool, which never again closes, except the salving material possess some adhesive properties which the one in question certainly does not; in consequence of this, many farmers of late years have allowed their flocks even in high and exposed situations to winter, without a salving of any description whatever; this practice, except in some very peculiar situations, can seldom, with propriety, be continued above a year or two, as under this treatment the quantity and quality of the wool invariably falls off, and seldom fails to produce a kempy fleece; or, in other words, the wool gets imbedded

with dead white hairs, which renders it unfit for any valuable purpose, and thereby materially reduces the value of the fleece. To obviate this objection, I would, with no small confidence, recommend the use of a salving apparatus, which might be constructed for a few shillings, from a piece of brass tube of that diameter which could readily be admitted between the skin and wool, without breaking the staple of the fleece; the apparatus will require to be pointed, shut at the end, and a slit cut in the tube half the length, the other half to be constructed upon the principle of a syringe which can be readily filled from the vessel containing the smearing material, and when inserted between the skin and wool of the sheep to be salved, the slit will require to be uppermost, when a slight pressure with the hand upon the piston will at once discharge the liquid into the other half containing the slit, which, upon being turned upside down, the tube will at once be discharged of its contents; and before it be withdrawn, the piston should be forced down to the utmost extremity of the tube to prevent the possibility of any of the material being left. Various other instruments might be adopted, such as the common syringe, or one with one or more holes in the side; the first, however, is quite superior in principle to the two latter, and I have no doubt whatever, if the Highland Society were to offer a prize of five pounds or guineas, for the best model of a machine for smearing sheep, that before next season, one would be produced of so efficient a construction, that a sheep could be salved with the same despatch that a printer can at this moment throw off a newspaper. Your giving a place to the above in your widely-circulated publication, will oblige, sir, your most obedient servant,

R. BOYD.

Marmion Place, Banks of the Leithen,  
7th December, 1835.

**COWS FED ON FISH.**—Mr. De Capel Brooke, in his interesting travels in Lapland, mentions a fact at which the English farmers will be much surprised, viz., that the cattle in Lapland, or Finmark, are uniformly fed on fish. I already, he remarks, fancy to myself seeing the English farmer's mouth open, and hearing him express his pity that a poor beast should be born to exist in such a country, and on such a diet. His surprise at the same time will not be lessened, when he hears that the animals not only devour this kind of food with the greatest eagerness, but thrive and do well upon it. What will our great cattle feeders say to this? or how would they look if they were told, that by the extension of our fisheries, a beast might, perhaps, be fattened in a shorter time, and more economically upon cod fish than by the old fashioned means of oil-cake? or that instead of manuring the ground with sprats, they may be introduced as an advantageous substitute for turnips, for our sheep in winter? It appears that horse dung, when it can be procured, is also boiled up with the fish bones, and greedily eaten by the cattle, in Lapland and Norway. As the process by which the food is prepared for the cattle is curious, it may not be uninteresting to the English farmer to read the account. About five o'clock in the evening, a large iron pot is regularly placed on the kitchen fire, partly filled with water, into which is immersed a large quantity of fishes heads and bones, with the addition of some hay; and this is to boil gently for some time, till a kind of fish soup is prepared. The pot is then taken to the cow-house by the maid-servant, and its contents are placed before the animals by being poured in their mangers. I was much surprised to observe the extreme relish and greediness with which they devoured this; both sheep and cows appeared equally fond of it. The milk is of a remarkable rich flavour, and the beef and mutton very good.

## ON BAR SHOES.

By Mr. E. CHARLES, *Clarges Street, London.*  
(From the *Veterinarian*.)

A BAR shoe is a nearly circular piece of iron, applied to the foot of the horse, and is so called because, when first used, a bar was most probably welded across the heels of a common shoe.

The diseases, to the cure of which the bar shoe is most frequently applied, are corn and sandcrack; and the effect sought to be produced is, the creation of a space between the shoe and the foot, so that no part of the weight of the animal shall bear on that portion of the foot which requires protection.

In a foot to which a bar shoe has never been applied, there is little difficulty in keeping a shoe, however clumsily it may be made, from bearing on the diseased part; because, the frog being in most cases higher than the heels of the crust, the bar of the shoe rests upon it, and the heels of the crust are thereby relieved entirely from the pressure of the shoe. But when, by the constant use of a bar shoe, the frog is worn down level with the heels of the crust, it becomes necessary that the shoe should be made to adapt itself to the altered state of the foot. This is done by making the shoe considerably thinner for the diseased or tender part, and leaving it thicker over the frog, that it may come in contact with that organ, while still at some distance from the heels.

Another advantage is gained by this form of shoe; viz. a perfectly flat gound surface: the quarters are also preserved, which under other circumstances, are almost sure to be destroyed; and when the frog and quarters are worn away, the difficulty of keeping the shoe from bearing on the heels is increased in proportion to the length of time the shoe is worn. Hence, it often follows, that a horse that wears a bar shoe once, wears it for ever, as it actually produces the disease it was meant to cure.

I am perfectly aware that it is much easier to shoe horses on paper than it is in the forge; and I also know, there are some feet which can only be shod so as to make them go sound in the very sort of shoe I would condemn as generally mischievous, viz., one of which is bent up to keep it from touching the heels, instead of being made thin over the heels, more particularly the outer edge of it, which is opposite the crust; but these owing to several causes which do not properly belong to this subject, are getting very rare; and some of them have no doubt, been produced by being shod, in the first place, with the shoes they are now compelled to wear.

Now, though I must confess that the art of shoeing at some forges in London is brought nearer perfection than it ever has been before, yet I was led to make these remarks, by having lately seen several bar shoes, which had been put on at some large establishments, totally devoid of principle, both in the construction and application, and yet finished in a very superior manner, and highly creditable to the makers as mechanics. This is a state of things that ought not to exist at the present time; and though I am fearful this will not be read by many who are entrusted with the important duty of fitting and putting on the shoe, I think their employers may derive both honour and profit, would they attend to this branch of the art themselves; instructing those who are ignorant of the principles of shoeing, and confirming, by judicious explanation, those who are doing the thing properly, in many instances, I am afraid by mere accident.

**SMITHFIELD SHOW—PRIZE CATTLE.**

Subjoined are the weights of some of the Oxen and Sheep which obtained prizes, with the names of the butchers by whom they were purchased.

	No.	st.	lb.			
Mr. Grantham's three Southdown Wethers, which obtained the gold medal, as "the best pen of Short-woolled wethers," also ten sovs. and a silver medal, were purchased by Mr. Giblett, of Bond-street, and weighed .....	} 1	21	0			
				} 2	20	6
Mr. Painter's three long-woolled fat Wethers which obtained a premium of ten sovs. and a silver medal, also purchased by Mr. Giblett, weighed .....	} 1	20	5			
				} 2	19	3
Mr. Senior's Ox, bred by W. Jellicoe, Esq., which obtained a prize of ten sovs., was purchased by Mr. Bridge, of Lambeth, and weighed .....			124st.			
Loose fat .....			18st. 4lb.			
Mrs. Strickland's Fat Cow, which obtained a premium of 15 sovs. and a silver medal, was purchased by Mr. Randall, of Oxford-street, and weighed .....			172st.			
Loose fat .....			24st.			
The Marquis of Tavistock's Ox, which obtained a prize of fifteen sovs. and a silver medal, was purchased by Mr. Sylvester, Chancery-lane, weighed .....			165st.			
Loose fat .....			25st. 1lb.			
Sir F. Lawley's Ox, purchased by Mr. Giblett, weighed .....			184st.			
Mr. Senior's Hereford Ox, bred by the Rev. J. R. Smythies, which obtained a prize of twenty sovereigns, was purchased by Mr. Giblett, and weighed .....			169st. 2lb.			
Mr. Beasley's Durham Ox, which obtained a prize of ten sovereigns, was purchased by Mr. Smith, Drummond-street, and weighed .....			232st. 5lb.			
Loose Fat .....			27st. 4lb.			
			No. St.			
Earl of Harborough's Pigs, 22 weeks' old, which obtained a prize of ten sovereigns, were purchased by Mr. Sheppard, Skinner-street, Somers Town, and weighed ..	} 1	27				
				} 2	25	
Mr. Peach's Durham Heifer (of which a plate is given in this Magazine) was purchased by Mrs. Somers, Somers Town, and weighed .....			159st.			
Mr. Chandler's Surrey Pig, exhibited as extra stock, was purchased by Mr. Willocks, Tottenham Court-road, and weighed ....			15st.			
Earl Talbot's Hereford Ox, exhibited as extra stock, was purchased by Mr. Sheppard, New Cut, and weighed .....			238st. 6lb.			
Loose fat .....			19st. 5lb.			

**DRAINING.**

It has been often said that he who makes a blade of grass grow where a blade of grass never grew before, is a benefactor to his country, and surely it is not less true that he who makes a portion of the soil produce double or treble the amount of grass or grain which it produced before, is no less his country's friend. Following out this view we recommend to our agricultural friends to make themselves acquainted with the system of draining now being carried into effect upon the lands of Rotchell, in the immediate vicinity of this town, by Mr. Robinson, from the county of Cumberland. It is now, we believe, about 25 years since a W. Elkingham, in Lancashire, (if we mistake not) discovered by accident a mode of draining, for which he received a patent, and in reference to which he published a treatise; and though

his discovery was followed out by himself with success, and, since the expiry of his patent, has been followed out, with not less success, by many others in England, we are not aware that it is well known or much practised in this part of the country. Mr. Elkingham's system, as followed out by Mr. Robinson, is, to a certain extent, simple, and in common with what has been done by many in this district, namely, to cut a pretty deep drain along the most hollow part of the land requiring to be drained, but instead of simply cutting all the other drains presumed requisite a certain depth, and then covering up the whole, he carefully examines the various strata excavated, and if he is not satisfied when he has cut a reasonable depth, that he has caught the spring, he perforates, or *taps*, as it is technically expressed, by means of a long iron bar, in the hope that he will hit upon it, knowing that the water will rise to the height of the source from which it proceeds, if required. In this he may not always succeed in his first attempt, but by perseverance, we understand, he seldom or ever fails in his purpose, though he has sometimes to bore to a very considerable depth. If we mistake not he mentioned to us that he had bored not less than 21 feet from the bottom of a 6 feet drain, before the water followed the instrument. The instrument itself is remarkably simple. It consists of a long square bar of iron, if we may use the expression, with two cross bars, and by means of a screw these cross bars can be fastened higher or lower as the arms of those by whom the instrument is wrought may require. The square of this long bar is not more than an inch and a half, and in adhesive soils the aperture made will scarcely exceed two inches, but this has been found sufficient, and when once made in the proper place is certain to be kept open by the power of the water rising from the spring. We cannot at present enter at length into this subject, and, besides, we are aware that though description might seem plain to ourselves who have visited Mr. Robinson upon the grounds, it could not convey a clear conception to those who had no other information upon the subject; we are certain, however, that they who visit Mr. Robinson at Rotchell will find themselves amply repaid for their time and trouble. They will find Mr. Robinson at once discreet and intelligent.—*Dumfries Herald.*

**TO PRODUCE A FINE SAMPLE OF WHEAT.**

Select for your seed the best stock adapted to the soil that you can procure, (white and red mixed is mostly to be preferred, but they should be grown separately and mixed afterwards,) cure it properly to prevent smut, let your land be dibbled and set, and in the Spring well hoed and kept as clean as a neat garden, this will admit a free circulation of air to the plant, and cause many grains to come to perfection which would otherwise be shrivelled: as soon as the grain is arrived at maturity, let it be cut, (if you wait till it is fully ripe, it will make weak flour, more particularly upon light soils,) and if the straw be dry, stack it immediately, not waiting for the hardening of the kernel, which process should always take place upon the stack, as exposure to the sun injures its colour: it ought always to remain upon the stack till the kernel becomes dry and hard, and get it into the barn when the air is dry, let it be thrashed out upon a good oak floor; if the weather be dry whilst thrashing, expose it as much as possible to the air, and if the weather be damp exclude all the air you can.

A MILLER'S OBSERVATION

## AGRICULTURAL REPORTS.

## NORTHUMBERLAND.

Since my last report the weather has been, and continues, very changeable, as is very usual at this season of the year, with frequent gusts of wind and some heavy rains, which have saturated the earth, and filled the springs plentifully with water, so that the thrashing mills have now got into full action, and will have to work double shifts for some time, to enable the poor farmer to discharge his arrears with his landlord, as it now takes double the quantity of wheat to raise the same sum it did some few years ago, the prices being nearly one-half less—the best price for wheat here is 4s 4d, barley 3s to 3s 4d, oats 2s 4d to 2s 8d per bushel; beef 5s to 5s 6d per stone, mutton 4d to 5d per lb.

Turnips prove a very failing crop in general; potatoes are also a very deficient crop, which will be found a great loss to the poor labourer.

Wheat will be found an average crop in general, with some exceptions—barley, also, a full average. Oats rather below an average, owing to the very dry summer. Beans a bad crop. Peas a full average one.

I am no politician, nor do I pretend to know much about politics, only I perceive something particularly wrong in our system. At present the agriculturists are sinking to the lowest ebb of degradation and ruin, whilst the manufacturer and mechanic are reaping the benefit of their industry. I envy no man's prosperity—I rather rejoice to see our manufactories and our commerce flourishing; but still at the same time I should like to see the agriculturists have some small part of the prosperity with their wealthy neighbours.

In my humble opinion, which every true Englishman has a right to express in a respective way, Mr. Peel's bill has been the sole cause of our agricultural distress, to the advancement of the manufacturer and mechanic: from clear proofs he was the cause of my capital being reduced nearly one-half, and unless that bill be repealed, the landlord must be content with about half of the present rents, or the English farmer sink to the lowest ebb of degradation and ruin.—*Dec. 4.*

## GLAMORGANSHIRE.

The agricultural operations on the farm during the past two months have been chiefly confined to the sowing of wheat, or taking up the potato or mangel crops, which operations have been very considerably impeded by the heavy rains that have fallen, amounting to a greater depth than we have noted for many years. In October the extraordinary quantity of 8 in.  $\frac{3}{4}$  fell, and in November, 5 in. 7-10; on the 26th of October we had 2 in. in little more than 24 hours. We need scarcely remark that after this excess of moisture the land is completely saturated, and rendered unfit for the plough except on dry soils. In too many instances the wheat seed has been deposited in a very unfavourable manner. October proved also cold and ungenial, and the grain vegetated very slowly. Latterly the temperature has been higher, and the

wheat braired has shot forth and now looks well on dry soils. The breadth of wheat sown is less than usual, still it is much greater than the present price requires. Turnips are a very deficient crop, and the bulb increased very slowly in the autumn from the cold weather. The grass land seldom produced less keep than in the present year. In former dry summers the pastures are generally very productive in the autumn, but in this season it has been otherwise, and they have been unusually bare in stock of every description, and consequently low in condition. The consumption of hay must be great before May, and we expect it will become scarce. At our recent fairs the show of fat stock has been less than has ever been known, and good beef is worth 5d and mutton 5 $\frac{1}{2}$ d to 6d a lb, but store cattle are unsaleable. The corn market is still low, especially for wheat, although some small improvement is lately visible. The price is under 5s a bushel, which is greatly below the cost of producing it. Barley about 3s 6d, and oats 2s 6d.

We hail with considerable satisfaction the prospect of a Central Board of Agriculture being established in London. Such a measure cannot fail to be of signal service to the agricultural public, not as a political engine, which we would strongly deprecate, but as a measure which would bring together the landed proprietor and the leading agriculturists, whether Whigs or Tories, from all parts of the kingdom, to investigate, like other classes, any public measure which immediately affect their own interests.—*Dec. 3.*

## FIFESHIRE.

The weather for the past month has been very mild and rather showery, but pretty favourable for out-door work. The young wheat that is above ground is well planted and healthy; but a great part of it has not yet sprouted, and the breadth sown is not nearly so great as usual. On dry land the pastures have all the greenness of spring, and as potatoes and turnips are both scanty, cattle are still to be seen in the fields. The prices of grain are uncommonly low—down to what they were in a former century—and the present state and prospects of the farmer are truly distressing and gloomy. Every body has his own particular panacea to prescribe for relief, but the only medicine we have any faith in, for giving immediate and lasting relief, is an immediate and permanent reduction of rent. Potatoes are still bringing high prices; but as there was a very extensive failure of the crop, it is only the few individuals who were so fortunate as to have even ordinary crops who will be benefitted by the high rate at which they are selling.—*Dec. 1.*

## DUMFRIES-SHIRE.

Most of the potato land intended for wheat was sown during the first half of the month, which was dry though cold. The continued rains and drenched state of the soil since the 15th, have prevented further progress, and there will probably be little more sown in Dumfries-shire this season, the low prices

affording no encouragement to run the risk of failure, which in most situations of this county frequently attends spring sown wheat. For a good many years past, the *braird* at the end of November has not appeared so backward; nor, indeed, perhaps has there been so small an extent sown.

Sheep improved on turnips during the dry weather, but the late heavy rains has been most unfavourable for them. It is in such weather, and during storms of snow or frost, that there seems no doubt but that a portion of grain, say to the extent of three half-pence or two-pence worth of oats per week, may be very profitably given in addition to the turnips. Without such addition and great care, it will be found that in an unfavourable season few of the October black-faced widders can be put in condition fit for the Liverpool market.

**CATTLE MARKETS.**—These have continued, both at home and in the South, in a most depressed state. The average sales have been lower during this month than they have been at the same season for 35 years; nor can the oldest farmer remember a year in which so many cattle were weekly left unsold in the Dumfries market during November. In Norfolk, the demand has been of late better, and a smaller number of Scots cattle than usual at this season remain unsold; but the prices have not improved, owing mainly to the scarcity of turnip, and the consequent high expense to be incurred by fattening exclusively on oil-cake and grain. The prices of Smithfield being fully above those of the average of the last ten years, and 15 per cent. more than some of extreme depression, gives a reasonable hope that our lean stock will obtain better prices in the spring—at least when the season of grass approaches.

**SHEEP.**—The markets for Scots ewes in Yorkshire, in the beginning of the month, became most deplorable,—numbers were left unsold, and, for the first time almost ever known, many lots returned to Cumberland and this county to be wintered. There seems to be a complete overstock of breeding sheep over England, added to which the pastures in the latter autumn have been very unproductive. The store farmers here might be much discouraged, were it not that wool, in price and demand, is continuing firm; and the consumption of butcher meat in the manufacturing districts being great, is an important circumstance in their favour.

The Liverpool markets have been very low for the half-fed old ewes which have been sent from the county; but for the turnip-fed widders and year-old sheep, which may be ready for Christmas, and likewise for well-fed bullocks and heifers, there is almost a certainty of good demand and remunerating prices, which now nearly reach 6d. per pound. Every year we may expect that greater quantities of good stock will be early ready for the market, and thus better regulate the supply during the season. The practice of stall-feeding Galloway cattle is yearly on the increase, though as yet too small a proportion of the best stots are kept for this purpose.

**GRAIN.**—Barley has been largely exported at from 3s. to 3s. 2d. per imperial bushel. The sample is inferior in quality to expectation, and the weight averages only 52 or 53lbs; but the produce per acre being considerable, more money will be realized from the grain than last year. The shipping season for wheat and oats has not commenced, but the prices of Liverpool indicate only the extreme low rates of 4s. 6d. to 4s. 8d. per bushel for wheat.

#### IRELAND.

In giving a report of the produce and state of the crops, it gives us satisfaction to have reason to ad-

mit, that there is a better system of husbandry more generally practiced in many parts of the country, and that a spirit of industry is fast extending, especially in such counties and districts as have been blessed with a resident gentry. Indeed, it is interesting to observe the different shades of civilization which are to be witnessed where the natives have been encouraged to pursue industrious habits, and where the want of employment has left them inactive and ignorant:—in the former case, a few acres are advantageously cultivated and produce food for hundreds—in the latter hundreds of acres only support a few head of cattle, or supply firing to an impoverished and comfortless population; because, there is neither capital or skill to bring such land into profit. This we should be happy to see otherwise, but although much has been suggested by intelligent and practical men, which, if put into practice, would reclaim a great extent of waste lands, and give bread to an immense population in the western parts of Ireland, yet the work is but slowly progressing. Gloomily, however, as this state of the Western part of the Island exhibits, it is cheering to find, that the Northern and Eastern Counties are treading fast on the heels of the Sister Country in agricultural improvement; which must naturally extend itself in every direction for the general benefit of the country. This was precisely the case fifty years since in England—Mr. Coke of Norfolk, introduced an improved system of husbandry among his tenantry, which was proved so beneficial that it was adopted before 20 years almost by every county in great Britain. Sir John Sinclair was as zealous in the cause in Scotland as were the agricultural Patriots in England, and that part of the empire, seeing the great advantages to be obtained from a good system of husbandry, by their perseverance and industry, brought cultivation nearly to the height of improvement. We therefore confidently hope that Ireland, having so many advantages of soil and climate, may yet have to boast of her superiority in husbandry; and this we are satisfied will soon be the result, if the example of the few spirited individuals in the cause of patriotic improvement now residing in the country will be followed.

With respect to the Crops generally, there is, except very partially, no deficiency, and it may be truly asserted “there is plenty to eat, but little means to purchase.” This abundance of food, however, does not seem to be beneficial to the community generally, for all classes complain of the want of money, and none gain by the excessive low prices of provisions except artisans and labourers, who still receive high wages, notwithstanding they can support their families at nearly half the expense they were enabled to do some years ago. Most Landlords have reduced their rents, and taxes are usually moderate, yet this is not sufficient to ensure a profit to the farmer who embarks his capital and industry, at a risk, in agricultural pursuits, yet an unreasonable part of the community expect cheap bread, although it causes the ruin of those who produce it. We are well acquainted with the expense of raising and sowing corn and other crops, and we are satisfied that the present prices of grain will not pay first cost—even admitting the land at the lowest rent that the proprietor can possibly afford it; and was it not for the introduction of clover leys as a preparation for wheat, these few years past in the corn districts, farmers living solely by raising grain must have been long since obliged to throw up their lands. It may, however, be supposed, from the title of our periodical, we are solely advocating the *farmer's* cause,

and that of land proprietors, in deploring the depressed state of agriculture; but an unprejudiced and impartial view of this subject, will satisfy every rational person that there is a reciprocal interest with respect to trade and manufactures, necessary to be upheld throughout every community; and in order to maintain the separate interests of each they should have equal advantages. On this principle it was argued by some politicians, that the present prosperity of our manufacturers would be certain to rise the sinking interests of agriculturists, but in this the latter have been disappointed; for, notwithstanding there must be an increased demand for land produce, in consequence of the increasing wealth of the manufacturing population, yet the importation of foreign grain being either admitted or smuggled, inundates the home market and depresses our prices below what the article can be raised at. The question, then, is—How are we to meet this depression? It is said the rents must be still lowered, and the land relieved from a great portion of its present taxation. This we'll admit, will in some degree lighten the expenses, but will it be an effectual remedy for the existing depression? Certainly not. For we can enumerate many instances in which crops of wheat, even on good land, have not paid the costs of cultivation, and others, where cattle have been sold for less money than was expended in feeding them. It may be said, what has this last observation to do with the reduced prices of grain? But let it be recollected, that the poverty of the cultivator of the soil, in consequence of these low prices, often obliges him through necessity to dispose of his live stock also prematurely, by which an over supply of beasts are brought to market, consequently a fair price for a few prime ones only is obtained. Thus it is that poverty creates poverty, and not even industry or a good system can counteract the difficulties to be surmounted under existing circumstances. In fact, the remedy rests solely with the legislature.

Having little to observe as to the State of the Crops at this season, we shall take the opportunity of making some observations on "Rural Economy"—as in this it must be admitted, many of our farmer requiresome "hints;" and being confident that often as much is gained by good management of a farm, as by good cultivation. For example—why should cocks of hay be allowed to remain in the fields till the bottoms are injured by damp, and their tops saturated with rain? If cocking is necessary, which in some cases may be so, surely a few weeks are sufficient to season the hay, preparatory to its going into a rick, yet in many farms it is left out two or three months, during which time it loses much of its valuable properties, and also diminishes much in quality. There is also a practice of stacking corn in the fields for the purpose, it is said, of securing it, and seasoning the grain fit for large ricks. This, however, can be better effected, and equally safe, by putting the sheaves into stooks, and if the weather be showery, to hood or cap them; by which method much less grain will be wasted, and much expense saved in the harvesting. In the stooks the grain will receive the full benefit of the sun and air, which in stacks is excluded, and when those latter are afterwards removed, the grain will shed much more than had the sheaves been saved in stooks; indeed, the stacking of corn in the fields is seldom to be seen except in Ireland.

The timely weeding of corn and other crops is much neglected; and as it is well known that "one year's weeds, brings seven years' seeds," it is the

worst of management to allow them to grow at any time: they also much impoverish the land and diminish the value of the growing crop, whether of corn or grass. We have however observed with much surprise, meadows and pastures overrun with luxuriant weeds during last summer, although one man with the scythe could cut down loads of them in a day, which might be converted afterwards to valuable manure by adding them to the fermenting dung-hill!—In fact, this is the chief reason that grass cannot be so expeditiously saved in Ireland, for being so full of weeds, these latter require a much longer time to wither, and until this is effected, it is not safe to put the hay together in large quantities. There is also another error often committed, in not shutting up grass land sufficiently early, by which mode the advantage of early cutting is obtained, and afterwards a good bite of aftergrass also. This system secures the improvement of the land by pasturing a heavy stock of sheep for several months. If such matters therefore, relating to rural economy, are not duly estimated by the farmer, we have little hopes that his his pursuits will prosper, even were the prices of produce 20 per cent. higher than at present.

Many fields of potatoes are still undug, although perfectly ripe, which is judicious both as to this crop and that which is to follow (if wheat,) for much wet or severe frost will prevent it being sown at this favourable time. We regret to see the lazy-bed system practised on newly broken up leys in many districts:—it is far preferable to drop the potatoe sets into cuts made by a narrow spade, as practised in the County of Kilkenny—then to lay on rotten manure, or ashes, and trench the ridges. The sods being thus cut, will receive moisture more freely and rot faster, which will consequently insure a more luxuriant growth of crop. The sowing of wheat is generally deferred later than was usual some years back; and this is attributed to the mildness of the winters for some years past, the farmer being apprehensive that by sowing too early, when vegetation is not likely to be checked, the crops might become *winter proud*. No doubt this often happens, and requires consideration: but eating off the plants in February, or early in March, is an effectual remedy in such case against a superabundance of straw being produced, and of ensuring a more productive crop of corn, and of better quality, than had the plants been permitted to shoot up too quickly. This system cannot be recommended, however, on shallow or arid soils, for should a dry spring follow, the plants would not sufficiently cover the ground in time to resist injury from drought; and in such case a deficiency, both of straw and corn, would be the result.

The turnip system is partially introduced in some counties, particularly in the North of Ireland where generally a spirit of improvement is fast extending. We are sorry however to observe, that the working class of farmers seem not as yet to appreciate the advantages of this root, at least it appears so from their neglecting its cultivation. In some places where sown the plants are not afterwards hoed out to proper distances, therefore but few of the roots arrive at a profitable size. It is idle to sow this crop when every thing necessary to promote its growth is not in due time performed. The great abundance of hay now secured, should encourage the accumulation of manure made by well fed cattle.—This, as Young says, should be esteemed the "gold dust of the farmer." B.  
—*Irish Farmers' Magazine.*



## AGRICULTURAL INTELLIGENCE, FAIRS, &amp;c.

CHIPPENHAM CATTLE SHOW was fully attended, and the stock exhibited gave great satisfaction. The fair, as well as the great market, happening on the same day, the town was more numerously attended by farmers, factors, and dealers, than was ever before known, and business to a very considerable extent was transacted; in fact the great improvement which has of late taken place in the town was visible to all. Joseph Neeld, Esq., M.P., who has on all occasions so liberally exerted himself for the benefit of the town and neighbourhood, was present; as were also H. G. Boldero, Esq., M.P.; John Neeld, Esq., M.P.; with many of the neighbouring gentlemen. The Judges, Messrs. E. Wm. Rich, James Stratton, and George Toghill, awarded the premiums and bounties as under:

FIRST CLASS.—*Fat Cattle*.—1st prize, value 5*l*, to Mr. Samuel Ferris, Bulkington; 2d ditto, 3*l*, Mr. John Brown, Minety.—1st bounty, 3*l*, Mr. John Dark, Broughton; 2d ditto, 2*l* ditto

SECOND CLASS.—*Dairy Cows*.—1st prize, value 5*l*, to Joseph Neeld, Esq., Grittleton; 2d ditto, 3*l*, Mr. Richard Blackford, Malmesbury.—1st bounty, 2*l*, Mr. Rich, Chippenham; 2d ditto, Mr. Christopher Beaven, Highway.

THIRD CLASS.—*Bulls*.—1st prize, value 5*l*, to Mr. Chapman Wick; 2d ditto, 3*l*, Joseph Neeld, Esq., Grittleton.—1st bounty, 2*l*, Mr. Daniel Holbrow, Knockdown; 2d ditto, 2*l*, Mr. John Little, Biddestone, 3d ditto, 2*l*, Mr. Christopher Beaven, Highway.

EXTRA STOCK.—A bounty of 3*l*, to Mr. John Dark, Broughton, for two breeding heifers; ditto of 2*l*, Mr. Thomas Henley, Preston, ditto; ditto of 2*l*, Mr. D. Holbrow, Knockdown, four fat wethers; ditto of 1*l*, Mr. Witcheil, Church Yatton, for hilt in farrow; ditto of 1*l*, Mr. Stephens, Hullavington, for cart stallion; ditto of 1*l*, Mr. Henley, Scanley, for fat pig.

The premiums will be distributed at a meeting of the subscribers, to be held at the New Hall, Chippenham, on Friday next, when resolutions will be entered into for the show of cattle for the year ensuing.

A remarkably fine heifer, only four years old, was killed by Mr. Harris, of Highworth, on Tuesday last. It was grazed by Mr. Geo. Akerman, of Little Blunsdon Grove Farm; her weight was 19 score 10lbs per qr., loose fat 180lbs, hide 136lbs. She was pronounced by good judges to be one of the finest cutters ever seen in that neighbourhood.

ASHBOURN FAIR.—There was a large supply of store stock, which met with rather a dull sale; there were but few fat beasts shewn, which fetched 5½d to 6d per lb; the quantity of sheep penned was not great, and sold at 5½d to 5d per lb. Horses were limited in number, and of an inferior description. Three prime fat heifers were shown; one belonging to Mr. E. Etches, fed by Mr. Wood, of Yatshill, Staffordshire, which won the silver cup and six guineas stakes at Rugeley cattle show; one belonging to Messrs. Marples, fed by Mr. Smith, of Swarkestone; and one belonging to Mr. Bridden, of Tissington, fed by Mr. Hassall, of Hartshorn, in this county. They were allowed by judges to be three of the best heifers ever shewn in Ashburn. Mr. Wm. Tomlinson and Mr. Wm. Miers shewed a prime fat wether sheep, which won the prize at Rugeley cattle show; two ditto by Messrs. Marple, bred and fed by Mr. Gould, of Pilsbury; and two ditto by Messrs. Spencer, bred and fed by Mr. Smith, of Blore. The whole could not be excelled for their beauty and symmetry in this county.

SALISBURY.—Our annual great market, or Gilding Tuesday, as it is called, on account of the fattest ox having his horns gilded, took place on Tuesday last, when the cattle exhibited were of the finest description; indeed such a show has not been seen in Salisbury for many years, there being between 700 and 800 head in the market. The largest ox was purchased by Mr. Spencer, of Southampton, but the fattest beast (that with the gilded horns) was purchased by Mr. Judd, butcher, of this city. The next in size and weight was purchased by Mr. James—all realizing very high prices. Some excellent beasts were also purchased by the other respectable butchers in this city; and the whole had a very quick sale, at the high price of from 11s to 13s per score. Prime heifers fetched from 8s to 10s per score. Cows, from 7s to 9s. The sheep exhibited were also remarkably fine, the primest fetching 6½d per lb., and inferior ewcs and coarse horns, 5d to 5½d. Some fine oxen from Somersetshire attracted particular attention, and were admitted by the best judges to be equal to any exhibited in our market for many years. We understand they were bred by Mr. Brown, of Butleigh, near Glastonbury.

At BOTLEY CATTLE MARKET the premiums were adjudged as follows:—Five sovereigns, to Mr. George Atkins, of Barton, for the best fat ox; three sovereigns to ditto, for the best fat heifer; a piece of plate, value 1 sov., for the best fat pig, to Mr. Benham; a purse of 20s. for the best fat pig, shown by a labourer, to Thomas Shawford. Mr. Atkin's ox and heifer were considered excellent, and as there was no competition for the two first prizes, there was no hesitation on the part of the judges as to who was entitled to them, and therefore Mr. William Barfoot, of Chicken Hall (whom Mr. Atkin deputed to take his place at the table and to receive the prizes, as well as to state that the money would be preferred to the tankard and soup ladle), made a very suitable address on receiving it. The competition for the pigs was great, there being many extraordinary fine ones shown.

YORK CHRISTMAS HORSE SHOW. — This great mart for horses of all descriptions, openly commenced on Tuesday, Dec. 15, though on the previous day much business was done in the several yards of the inns of the city. The show of hunters was rather thin, but there being several buyers, from the South in particular, they were readily sold at great prices. In short, we are told that nothing like a good hunter could be obtained for less than 100*l*.; many fetched a still higher price. The inferior horses were very numerous, but the high prices of the hunters had an effect upon the nominal value of them, though they did not sell so high, in proportion, as the others. We understand that there were several of our army agents present, and also an agent from Don Carlos, of Spain, who seemed either not to know the difference in horses, or to think that any sort would do for the Spanish Insurgents. Upon the whole the aspect for breeders was very good; for the dealers had visited the neighbouring villages, some days before, and had made considerable purchases.

We are informed that the prize heifer shown by Mr. Fussell, of Laycock, and the Hereford Ox, fed by Mr. Unthank, of Tottenham Park, Wilts, both exhibited at the last Bath Agricultural Meeting, together with a Buffalo Heifer, also fed by Mr. U., are now slaughtered by Messrs. Wyatt and Hill, of Marlborough, and are allowed by all judges who have seen them, to be three of the most complete carcasses ever killed in that town or neighbourhood.

## MONTHLY REPORT OF THE WOOLLEN TRADE.

DEC. I.—The state of the woollen trade of Leeds, during November, has borne a pretty close resemblance to the weather experienced in the same period, that is, it has been dull and heavy. The trade of this month seldom bears any better character, though, we think, this year, it has been more than usually flat. Several causes contributed to this; two are most prominent. The weather, though wet and unpleasant, has been mild and warm for the season, and the sale of winter goods has been considerably checked in consequence. The demand for double milled goods has still further been considerably affected by the substitution of pilot and mohair cloths, especially in the metropolis, where the gentlemen appear to think that bear-skins are a very appropriate accompaniment to the ladies' coats. The trade in middle priced and fine single milled goods has also been checked by the increasing consumption of buckskins, which have been so much in demand during November and October, that they have been bought, or ordered, whilst in the loom; as these are chiefly manufactured in the neighbourhood of Huddersfield, and in Saddleworth, the trade of those places has been marked by considerable animation.

Notwithstanding the general dulness of the Leeds trade, there has been a great deal doing in army goods and low cloths generally; whilst in Petershams an unusual quantity has been sold throughout the season. The dulness of which we complain is in fact principally confined to the trade in middle and fine woollens, both single and double milled, and this has been so much counterbalanced by the activity of other branches, that we believe if the trade of the woollen district of the West-Riding be taken as a whole, there has been a fair average amount of business done in November. The change of taste is unfavourable to Leeds generally, most of its manufacturing establishments, as well as a large proportion of those in the surrounding villages, being occupied with the very description of goods superseded by that change.

As a relief to this rather sombre account, we may state that the demand for the United States is expected to be fair; shipments to some extent have already been made, and during this month, the general belief is, they will be considerable. Should this expectation be realised, and we have strong reason to believe that it will, the winter months will pass over without any great relaxation of manufacturing operations, as the spring demand for the home market may be calculated upon in February, and the stock of suitable goods in the hands of the wholesale houses and the drapers cannot be great. We say *cannot be great*, because the kinds of goods usually wanted in the spring have been just those which have been scarce during the autumn; and though they are now accumulating in the warehouses, the American trade may fairly be expected to reduce them; and we greatly doubt if an average stock will be found in the manufacturers' hands on the opening of the spring trade.

Wool is looking upwards in price. An actual advance, indeed, has taken place on the lower qualities—say from 1s 10d to 2s 6d per lb. This description of wool has been deficient in quantity for several years, and has been for the same period disproportionate in price to the finer qualities. It is also that kind of wool which is most affected by the state of demand for comb-

ing wools, and it is in these qualities of colonial wools that the woollen and worsted manufacturers alike deal. The briskness of the stuff trade during the last three months had its effect on the late sales of colonial wools, and, in consequence, all the clothing wools of corresponding qualities have risen in price. In the qualities above 2s 6d an advance, though not so considerable, has taken place, and from 2s 8d to 3s wools may be quoted a shade higher. We much doubt, however, whether any advance corresponding to the advance on wools under 2s 6d will be effected, and we are quite sure it is most undesirable. The trade in middle and fine woollens, for the reasons already given, and for others which we could name, will not bear any additional burthen. The advance on wools in the spring season has been seriously felt by the manufacturers for several years back, and has invariably been accompanied by a diminished demand, and by contracted profits. Let the causes be what they may—whether, the substitution of other articles of wear, or increasing and successful foreign competition,—the trade in the qualities alluded to has regularly proved itself unequal to bear up against a rise of wool; and should the eager expectations entertained in some quarters of a rise in middle wools be gratified, we think it requires no gift of prophecy to prognosticate that it will materially cramp the trade. Of this, at least, we are sure—there is so strong feeling amongst the manufacturers on the subject, that they would, in the event of a rise, greatly contract their operations. The woollen trade, though fair for many months back, has little buoyancy; it does not partake of that onward energy which has for some years characterised the flax, cotton, and worsted trades, and though we hope better things of it in future, we are bound to say that it is not equal to any additional pressure, either from a rise in wool, or a more vigorous continental competition.

WOOL MARKET.—A correspondent in the *Morning Chronicle* says, "A considerable consternation has within these few days manifested itself in the wool market, which seems to forbode an eventful change in this branch of our national commerce. At an exhibition which it had been determined should from henceforward be held annually, a sample of wool of Prince Metternich's flocks was so very much superior to any thing that had hitherto been brought to market, that the usual purchasers could not be prevailed upon to make an offer for any sort whatever—probably fearing, and not without cause, that the whole of the Prince's wool would be of a similar quality, which would greatly affect the value of those sorts which have hitherto been considered the best. It was at the same time well known that the Prince's success was owing to a Mr. Barthels, of whose knowledge, scientific as well as practical, the Prince had wisely availed himself. This gentleman had devoted eighteen years to the study and practice of cultivating, improving, washing, &c. of sheep, which enabled him to form and act upon a system entirely his own. But ignorance, jealousy, and envy (generally the opponents of any new system, however beneficial,) so obstructed his anxious desires of benefiting his country, that Mr. Barthels resolved to leave his ungrateful countrymen to their old habits and deep-rooted prejudices, and to carry his acquirements to Australia. This being the cradle of Great Britain's future greatness in this branch of her commerce, I have no doubt Mr. Barthels will be received with cordiality, and that capital will not be wanting to support his exertions. At first it was reported that he had gone to the United States, but public as well as private accounts contradict this statement, and declare his having gone to Australia. From this you may judge of the importance attached to this gentleman, now that he is gone; and you cannot wonder at the backwardness of the purchasers, although years must elapse before the effects could be seriously felt."

## REVIEW OF THE CORN TRADE

DURING THE MONTH OF DECEMBER.

The Corn Trade throughout the month in Mark Lane, as well as the influential Country Markets, has exhibited no symptoms of animation or novelty to relieve the dull uniformity which has now so long pervaded the proceedings in grain. Owing to the damp and humid state of the weather during the early part of the month, which materially affected the condition of the wheat samples, the fine dry qualities have suffered less depreciation in value than other descriptions, but still these parcels formed so small a proportion of the receipts from the farmer, that he has been realizing ruinously low prices for his produce, totally inadequate to his remuneration, even had he not to deduct the amount of rent from the nett proceeds. On the other hand, barley, beans, and peas have been bearing a more than relative value, and compensating him in some degree for the sacrifice he has been obliged to submit to in the disposal of the more staple commodity; as however was natural to anticipate, the high rates of barley have induced an influx of the article on the various markets, and the currencies are fast receding to their proportionate value. The depressed character of the markets and the small modicum of rent which landlords in many instances are enabled to obtain, has aroused many of the larger landed proprietors and tenants to unite in order to concert speedy and effectual means for their relief. Many parties, some of whom are actuated by political and interested motives, others from erroneous impressions on the subject, are adverting to the abstruse question of the currency, and depicting in strong colours all the miseries emanating from Sir Robert Peel's bill of 1819, and the consequent alteration in the monetary system, instilling into the minds of the farmers, who, not reflecting on the point, are readily imposed upon, that their only escape from pending ruin, is reverting either to an issue of paper, or substitution of a silver for a gold currency, or, in other words, a debasement of the currency, thinking to verify the trite axiom of "two evils to choose the least;" all however that is urged, is mere verbiage, affording an opportunity for eloquent and oratorical displays, but the arguments like the currency recommended, are devoid of intrinsic and sterling value. At the late agricultural meeting, the Earl of Stanhope appears to have discovered, that unless the farmer's means were proportioned to his expenditure, he must become destitute, one of the few observations of his lordship, which are not to be contraverted; his lordship concluded his speech by moving a resolution

to the effect, "That nothing can remove the present overwhelming distress of the farmer, but the adoption of some measure which will either raise the price of produce to the level of the burdens imposed, or bring down the burdens to the level of the prices;" in order to effect the former, a fictitious capital is advised to be created, by debasing the currency, or a paper issue of money, destroying our foreign credit, and affording merely temporary relief; to effect the latter, a modified system of taxation, *tithes*, and *rent*, must be resorted to. Tampering with the currency has been ever found a dangerous and fallacious expedient; while the latter plan of "bringing down the burdens" on the above principles is the only practicable method of affording substantial and permanent relief.

The supplies of wheat have been large, and exceeded those of the previous month by more than 25,000 qrs. The closing month of the year is generally one in which farmers are compelled to thrash out freely in order to meet their pecuniary demands, and if barley or other grain is not held, wheat must be brought to market. The millers, as the supplies also of flour have been liberal, have not bought freely, and the trade has ruled dull with a depression in the finer qualities of 1s; good secondary descriptions having suffered a decline of 2s to 3s, and inferior 3s to 4s; but prime selected parcels are worth nearly as much money at the close as they were at the commencement of the month.

The principal shipments of bonded wheat have been to Madeira, Malta, Guernsey, and St. Johns, the prices realized being extremely low; Prussian hard wheat offering at 20s to 22s. The amount of bonded corn in the kingdom, which is 614,751 qrs, exhibits a decrease during the month ending 5th of December of 5,607 qrs.

The price of Town-made flour remains nominally unaltered, and though 38s is still the top quotation, it is hardly in any instance realized, the general prices being 31s to 36s. Ship's qualities have met a slow sale at the previously depressed currencies, good country qualities being taken at 29s. Several shipments of bonded flour have been made to the West India Islands and Mauritius, and the article continues to meet a partial demand for export. The stocks have diminished in the kingdom upwards of 7,000 cwt., and few parcels of sweet are offering on the London market; sour qualities are worth 13s to 19s per barrel.

The only alteration in the duties has been an in-

crease of 1s 6d per qr on barley. The duties being, on wheat, 50s 8d; barley, 19s 10d; oats, 19s 9d; rye, 27s 3d; beans, 16s 9d; peas, 16s 9d.

The arrivals of barley have been considerable, and have exceeded those of November by upwards of 26,000 qrs, the receipts during the week ending the 12th of December having amounted to 24,400; being one of the largest supplies ever received at the port of London within a similar period. Finer qualities of Chevalier formed a small proportion of the bulk of the imports, and have suffered less depreciation than the intermediate qualities of malting, which are 4s to 5s per qr cheaper than at the beginning of the month, Chevalier being 2s to 3s lower, but at these reduced rates maltsters came more freely forward, and the stands have been tolerably well cleared of all the better descriptions; distilling and grinding sorts have hung on hand at a decline of 2s to 3s per qr; good grinding samples being as low as 23s to 24s, and Irish, weighing 27 to 28 stone, noted at 21s to 23s per qr. The crop of barley is no doubt abundant, and as prices are still bearing a higher relative value than wheat, we may look forward to large supplies of the article during the months of January and February; indeed, in reviewing the gradual increase in the consumption of malt in London and its vicinity, as annexed, it has become of material import that not only the yield of the grain should be productive, but a greater breadth of land should be cultivated with the article, as the inquisitorial and unjust character of the law relative to malting, forces the maltster to select only the most kindly qualities, which will malt within the period limited by the Excise. The following is the amount of malt consumed in London and its vicinity during the last five years:—

1831.	1832.	1833.	1834.	1835.
qrs.	qrs.	qrs.	qrs.	qrs.
622,549	604,477	588,688	662,713	699,990

The stock of bonded barley in London has diminished during the month ending 5th of December 273 qrs, and in the United Kingdom 3,843 qrs. Prices in bond have sustained no variation, being noted at 13s to 15s per qr.

The Malt trade has been dull and declining, and is 1s to 2s per qr. lower for the finer qualities; brewers having got well into stock, have refrained from appearing at market, and hence the languor which has pervaded the transactions in the article.

The supply coastways has been liberal, and the show of other samples good. The new malt meets general approbation, the last growth of Barley malting tender and kindly.

The importation of oats has been on a very limited scale, particularly of Irish; the supply from them having been 24,657 qrs less than during October. In the early part of the month the trade exhibited little animation, dealers and consumers weekly anticipating larger supplies. Good fresh English, Scotch and Irish feed however maintained their former quotations, and only the light, inferior and ill-conditioned Irish receding in value to the amount of 6d to

1s per qr; towards the close of December, good fresh qualities were saleable at fully the previous currencies, and the trade firmer, the weather continuing cold, and the consumptive demand increasing. The opinion still prevails in Ireland that the price of oats will advance, and prevents the rates in that country from attaining a point which permits of general business being transacted; prices free on board remained steady at from 9s to 10s 3d as in quality. The export of bonded oats has been confined to a few hundred quarters to the West Indies. The amount of bonded oats in London on the 5th of Dec. was 83,935 qrs, which with the arrivals, shows a diminution of 644 qrs as compared with the previous month.

The damp weather having affected the condition of Beans at the beginning of the month, prices receded 2s to 3s as the supplies were liberal; the cold weather having however improved them with rather an increased demand, the prices have not further given way, remaining firm at the depression. Old scarce, and fully as dear.

White peas have remained steady with a good demand, but maple and grey have declined 1s to 2s per qr.

During the month of December the following quantity of grain and flour has arrived in the port of London:—

	Wheat.	Barley.	Malt.	Oats.
	qrs.	qrs.	qrs.	qrs.
English ...	47,706	55,338	39,809	7,763
Scotch ....	76	4,150	55	10,606
Irish .....	722	1,436	...	39,199
Total in Dec.	48,504	60,924	39,864	57,568
Total in Nov.	31,208	36,014	15,655	79,698
Foreign in Dec. ...	...	...	...	236
	Beans.	Peas.	Linseed.	Flour.
	qrs.	qrs.	qrs.	sacks.
English ...	8,088	5,662	287	45,460
Scotch ....	87	...	...	265
Irish .....	...	..	...	230
Total in Dec.	8,175	5,662	287	45,955
Total in Nov.	4,383	6,122	66	37,008
Foreign in Dec.	290	350	6,508	brls. 2105

In France little variation has taken place either in the price or demand of grain, at the principal markets. At Paris the cold weather experienced, was inducing the expectation of an advance in the price of flour, as the rivers generally remained remarkably low, not containing more water, in many instances, than in the month of August. At Rouen the same causes were operating on the currencies of the article, and fears entertained that a scarcity of flour might occur, though there was abundance of wheat on hand, so few water mills being enabled to use their full power. At Nantes, the demand for the Mediterranean having subsided, the trade was dull, but the better qualities of wheat were still held at 35s 10d per qr. At Bordeaux wheat had obtained high prices, owing to an animated demand having arisen, and the supplies continuing short; the finest qualities were noted at 42s 9d to 43s 10d, and good samples, as Machecoul, &c., 40s 5d to 41s 7d, and



PRICES OF FLOUR,

Per Sack of 280 lbs.	Dec. 1.		Jan. 1.	
	s.	s.	s.	s.
Town-made.....	36	38	34	38
Norfolk, Suffolk, Kent, and Essex.....	27	29	27	29
Sussex and Hampshire.....	27	29	27	29
Superfine.....	31	—	31	—
Lincolnshire, York-shire, and St. Ickton.....	26	28	26	28
Northumberland, Berwick, and Scotch.....	26	28	26	28
Irish.....	26	28	25	28
Extra.....	29	—	29	—

IMPERIAL AVERAGES

Week ending	Wheat	Barley	Oats	Rye	Beans	Peas
13th.....	36 7	29 3	18 11 26	4 35	9 35	9
20th.....	36 10	29 5	18 11 28	11 35	8 36	2
27th.....	36 11	29 3	19 0 29	7 35	11 36	8
4th Dec.....	36 9	29 0	18 11 30	10 35	9 31	9
11th.....	36 8	28 2	18 7 28	0 34	11 35	7
18th.....	36 6	27 7	18 6 24	5 31	4 35	1

Aggregate Average of the six weeks which regulates the duty..... 36 9 28 9 18 10 28 0 35 5 35 9

Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London..... 50 8 19 10 19 9 27 3 16 9 16 9

Do, on grain from British possessions out of Europe..... 5 0 2 6 2 6 3 0 3 0 3 0

Foreign Flour, 28s 8d per 196lbs. British Possessions do, 3s per 196 lbs.

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th Dec. 1835; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat, qrs.	Barley, qrs.	Oats, qrs.	Rye, qrs.	Peas, qrs.	Beans, qrs.	Maize, qrs.	Flour, cwts.	Cloversd, cwts.
Quantity imported....	1,726	..	2,272	..	..	..	..	..	..
Do, entered for home consumption.....	1,688	13	18	..	..	..	..	..	..
Do, remaining in warehouse.....	61,754	54,769	239,317	3,450	..	..	..	..	..
Quantity imported....	621	205	..	7,933	..	..	..	..	..
Do, entered for consumption.....	211	..	..	3,509	..	..	..	..	..
Do, remaining in warehouse.....	6,952	1,942	757	264,138	..	..	..	..	..

STOCK OF GRAIN AND CLOVERSEED IN BOND IN THE PORT OF LONDON ON THE 5th DECEMBER.

Wheat, qrs.	Barley, qrs.	Oats, qrs.	Beans, qrs.	Peas, qrs.	Flour, cwts.	Cloversd, cwts.
253,194	117,43	83,955	—	3,178	63,154	22,676

BOROUGH AND SPITALFIELDS MARKETS.

Ware	DECEMBER 1.		JANUARY 1.	
	£ s.	£ s.	£ s.	£ s.
Scotch reds.....	1 5	1 15	3 15	4 5
Marsh Champions.....	3 15	4 5	3 5	3 15
Common reds.....	3 15	4 5	3 5	3 15
London whites.....	3 10	4 0	3 0	3 10
Shaws.....	3 5	3 15	3 0	3 5
Middlings, Scotch reds.....	3 15	4 0	3 5	3 10
Marsh Champions.....	3 0	3 10	2 5	3 0
Common reds.....	2 15	3 10	2 10	3 0
London whites.....	2 10	3 5	2 0	2 15
Shaws.....	2 5	3 0	1 15	2 10

Chats, 17 to 17s per ton. Onions, 2s to 2s 6d per bush, bask.

PRICES OF HOPS IN THE BOROUGH.

	DECEMBER 1.		JANUARY 1.	
	£ s.	£ s.	£ s.	£ s.
East Kent Pockets.....	5 8	6 12	5 5	6 15
Mid-Kent Pockets.....	4 10	6 6	3 15	6 6
Weald of Kent Pockets.....	3 12	4 8	3 15	4 10
Sussex Pockets.....	3 3	4 4	3 10	4 0
Yearlings, Bags.....	3 3	4 2	3 3	4 2
Old Olds.....	1 1	2 10	0 18	1 10

SMITHFIELD MARKET.

	Per stone of 14 lbs. to sink the offals.					
	DECEMBER 1.			JANUARY 1.		
	s.	d.	s.	d.	s.	d.
Inferior Beef.....	2	0	2	2	2	2
Do, Mutton.....	2	4	2	6	2	4
Middling Beef.....	2	6	2	8	2	8
Do, Mutton.....	2	6	3	0	2	10
Prime Beef.....	3	6	4	4	3	8
Do, Mutton.....	3	4	4	4	3	4
Veal.....	3	0	1	10	3	6
Lamb.....	0	0	0	0	0	0
Pork.....	3	0	4	6	2	10

WOOL MARKETS.

BRITISH.

There has been a fair demand for most kinds of Wool until the last few days, when the time of the year has prevented business transactions. There does not seem to be any disposition on the part of the manufacturers to give the prices which the dealers are now asking, and from present appearances the prices must remain stationary, until some new feature on the aspect of the trade appears.

JANUARY 1.

	Per lb.
Down Teggs.....	1s 7½d to 1s 8d
Half-bred do.....	1s 8d to 1s 9d
Ewes and Wethers.....	1s 3d to 1s 4d
Leicester Hogs.....	1s 5d to 1s 6d
Do, Wethers.....	1s 1½d to 1s 2½d
Blanket Wool.....	0s 8d to 1s 2d
Flannel do.....	1s 2d to 1s 6d
Skin Combing.....	1s 1½d to 1s 3d

SCOTCH.

Per Stone of 24 lbs.

	DECEMBER 1.		JANUARY 1.	
	s. d.	s. d.	s. d.	s. d.
Laid Highland Wool, from, 10 to 10 6	10	0 to 10 6	10	0 to 10 6
White Do, Do.....	13	9	13	9
Laid Crossed Do.....	13	0	13	0
Washed Do, Do.....	14	6	14	6
Laid Cheviots.....	14	0	14	0
Washed Do.....	18	6	19	0
White Do.....	28	0	28	0

FOREIGN.

JANUARY 1.

The public sales of Wool last week consisted of 803 bales New South Wales, 53 bales Van Diemen's Land, 319 bales Spanish, and 838 bales other sorts; they were well attended, and commenced with animation at about the same rates as the last public sales. Some good lots of New South Wales Wool sold from 2s 3d to 2s 9d per lb, and others from 1s 4d to 2s 6d; the Van Diemen's Land Company's Wools were fine in the hair, but badly got up, they sold 1s 9½d to 2s 6d; some part of the New South Wales and Van Diemen's Land Wools were very much damaged, so much so that 3d and 6d was all that could be obtained. The German Lambs and Skin Wools sold at good prices, German Lambs 2s 1d to 2s 10d, ditto Skin, 1s 7d to 2s 4d. Of the Spanish only the two first marks were sold at 2s 5½d to 2s 6½d; the other marks not landed.

BONES.

Since our last there have passed the SOUND, or by ELSINORE, and the GREAT BELT, ships loaded with Bones, bound for Hull, 2; for other parts of England, 1.

# THE POLITICAL COMPANION

TO

## THE FARMER'S MAGAZINE.

[Our object in appending a Political Companion to the Farmer's Magazine, was to put our readers in possession of the opinions of the most talented journalists of the day, on both sides of any important question which might come under discussion. We trust, therefore, that in giving insertion to articles, which seem opposed to the agricultural interest, we shall not be considered as acquiescing in the doctrines therein advanced, our sole purpose being to enable our readers to estimate the truth or detect the fallacies of the arguments advanced.—ED. FARMER'S MAGAZINE.]

### THE CENTRAL AGRICULTURAL SOCIETY.

(From the Times.)

We had at first intended to make some remarks upon the proceedings of the agriculturists, as reported in yesterday's *Times*, and on the speech of Earl Stanhope. But really we cannot, and fortunately we need not. With the utmost respect for the landed interest as a mighty and invaluable public body, and with sincere personal esteem for the noble lord who stood forward to represent it on this occasion, it would be impossible for us, consistently with an outward observance of such sentiments, to express our opinions freely with regard to their arguments or their measures. We are *unable* to write seriously about the currency question in connexion with the distresses of agriculture. We have not command of our own muscles, and we have too much pity for those of our neighbours, to undertake a discussion on the subject of "equitable adjustment;" and with those who recommend a reduction of the taxes affecting agriculture, we can hold no logical communion, when they affirm that an *entire abolition of rents* would not make three farthings' difference in the price of the quartern loaf! For all that, we wish heartily well to the landed interest, and would be its advocate even on the present occasion, if we could understand the meaning of the proceedings.

### THE CENTRAL AGRICULTURAL SOCIETY.

(From the Morning Herald.)

The great object which we have long advocated, of a real and searching parliamentary inquiry into the causes of "agricultural distress," with a view to a remedy, now seems as if it could be no longer baffled or evaded. Heretofore the agriculturists were deficient in that union and combination of effort which was absolutely necessary to overcome the obstacles that an adverse government threw in their way, and to defeat the machinations of the Whig political economists, who, with the most heartless inhumanity, have ridiculed the sufferings and mocked the distresses of that most industrious, orderly, loyal, and meritorious portion of his Majesty's subjects, the farmers and yeomen of England.

But union and a common spirit and principle of action are no longer wanting to the agricultural body. The report of a great meeting held yesterday at the Freemasons' Tavern, which appears to-day in another part of our paper, will show that the *point* of combined operations is at last established in the metropolis by the creation of a "Central Agricultural Association for England and Ireland." Let this association be conducted with prudence, intelligence, and uncompromising firmness, and a very different reception will be given to the petitions and demands of the agriculturists in the next session of parliament from that which they experienced in the last.

There was a time when the ministerial journals never adverted to the claims of the agriculturists without making them the subject of stupid ribaldry and unfeeling sneers. It was a common practice with them to call the farmers "clods," and other contemptuous names, and to represent them as an exceedingly ignorant and benighted class, who were "unphilosophical" enough to complain of their distresses, instead of patiently sitting down under them, and deriving consolation from the lessons of political economy. We suspect that the ministerial journals will learn to treat the agriculturists with more respect, and to pay somewhat more of serious attention to their claims, upon finding that the "cause of the British plough" has become the rallying cry of a great association in the metropolis, who will have recourse to every constitutional effort to prevent the government and the legislature from any longer treating that cause with contempt and neglect.

Having advocated the cause of the agriculturists through evil report and through good report for years past, as a cause intimately connected with the interests of the nation at large, we rejoice to observe the public strength which now collects around it, and which, guided, as we trust it will be, by united discretion and energy, cannot fail to discomfit the unpatriotic—the un-English party, who could see the plough rotting in the unfinished furrow—the homesteads of rural industry sinking into ruin—the cultivator of the soil consigned to the gaol or the workhouse, and the beautiful fields of England made desolate, for the benefit of "science," and the advantage of the foreigner!

The real friends of the agriculturists will advise unity of action above all things—it was by such unity that the inhabitants of towns carried the repeal of the house-tax. Therefore did we approve of the advice given by the Marquis of Chandos to the landed interest and the farmers to avoid identifying the question of agricultural distress with the question of the currency. The broadest basis for moving parliament to institute an inquiry into the causes of the distress should be taken. When a committee is granted, then will be the proper time to offer evidence as to the causes. If, as we believe, the Currency Bill is one of the great causes of the low prices of produce under a heavy pressure of taxation, evidence to that effect can be given; or if it can be shown, on the other hand, that the Currency Bill is not one of the causes of agricultural distress, then will the mind of a large portion of society be disabused of an error that in the present state of things, becomes more prevalent every day.

Independently of the currency question, there are many matters worthy the consideration of a parliamentary committee, as connected with the relief, or at least the mitigation, of the distresses of the agriculturists. We alluded the other day to a more equitable arrangement of the land-tax—besides which, the compensation of tithes—the mitigation of

the local burdens of the farmer, consisting of county-rates, &c., and a poor-law for Ireland, ought all to be taken into the account. It is well enough for Mr. Spring Rice, our very superficial Chancellor of the Exchequer, to exhibit the returns of Irish produce exported to this country, as proofs of the prosperity of Ireland. But when we hear periodically of thousands of the Irish population dying of famine in the midst of plenty, we look at those returns as most melancholy evidence of Irish destitution and misery. If the great mass of the Irish population had the means of becoming consumers of their fair proportion of the corn, the bacon, the butter, &c. produced in that country, the markets of this country would not be inundated with Irish corn and other produce. All these matters, as connected with the question of agricultural distress, are proper subjects of inquiry before a committee of parliament, and we hope the "Central Agricultural Association," though confining their efforts, in the first instance, to obtaining a select committee upon agricultural distress, will keep them in view, and be prepared with such information as may be made available to the elucidation of the truth during the progress of a legislative inquiry.

#### THE CENTRAL AGRICULTURAL SOCIETY.

(From the Courier.)

Whatever may become of what is called the agricultural distress, it promises in the mean time, to put an end to the distresses of others. The functionaries who are to manage the Central Institution in London, have, we take it, got into rather snug births; and will most probably get a sleek and comfortable look, notwithstanding the "unexampled depression" of their constituents. That skilful alchymy, by which golden sands are extracted from the waters of bitterness, is no where so well understood as in England; and whether it be true or not, as Mandeville said, that private vices are public benefits, there can be no question that in this happy land public misfortune is always rendered productive of private advantage. However, the agriculturists are their own masters; and if they choose to be good-naturedly fooled out of their money, it is their own affair. We should be glad were any one of the patrons or founders of the new institution to explain what benefit resulted to agriculture, or to any one except its functionaries, from the establishment of the Board of Agriculture. And yet it had Arthur Young for its Secretary—a man who had done ten times more to promote agriculture, and who was incomparably better acquainted with its principles and practices than the whole host of those, though it were multiplied by 50, engaged in the present project. We suspect, however, that the scheme, magnificent as it may at first sight appear, is not destined to be very long lived. Most prosperous landlords will have nothing to do with it, and a brief experience will teach those in a different situation, that the employment of stipendiary "howlers" in London, is more costly than productive.

We should be anxious to promote, to the utmost of our power, any scheme that promised to relieve any part of any distress the agriculturists may really suffer, without compromising the interests of any other class. But it is quite clear that the leaders at the late meeting here, as well as at most of the other meetings in the country, have no such object in view. They do not say a word about any practicable measure of relief. They seem even to have thrown overboard the malt tax. A reduction of the standard, or a modification of what they call Peel's bill, is now

their single, as it always was their sovereign, specific. And though Lord Chandos, at yesterday's meeting, deprecated the introduction of any such topic, it formed the staple of Lord Stanhope and Mr. Cayley's speeches; and appeared to be the only thing about which the meeting cared a straw. We are glad that the Association has thus early manifested its views. Its leaders have fairly thrown off the mask; and we think better of the vast bulk of the agriculturists, who have been truly said to be, *minimeque mule cogitantes*, than to imagine for a moment that they will connect themselves with, or in any way support a junto, who call upon the legislature to benefit them by—robbing every one else! But they will certainly call in vain. Any government inclined to support their views would merit all the worst epithets lavished on O'Connell and the Catholic Priests, and would in a fortnight be trampled under foot. The British nation will never submit that all contracts should be vitiated, and that every individual to whom money is owing, either by the state or by any one else, should be plundered for no better purpose than that some few hundreds of improvident landlords might get a licence to defraud their creditors. This is impossible, so long, at least, as there remains amongst us the smallest respect for justice, or even the baser principle of self-love.

#### THE CENTRAL AGRICULTURAL SOCIETY.

(From the Globe.)

We could wish the career of the "Royal Agricultural Society," which was opened by the yesterday's meeting had been auspicious, were it but by a glimpse or two of that clear intelligence which broke forth at more than one of the local meetings throughout the country.

We could wish to have heard delegates from the Shropshire meeting, where the landowners were advised to come with clean hands into parliament, having previously strengthened their case for legislative assistance by doing all that private justice would dictate in behalf of their tenantry. We could wish to have heard delegates from the West Somerset meeting, where Mr. F. Popham pointed out in one brief sentence the necessity of clearing away that previous illusion which exists both amongst landlords and tenants, and which incapacitates all whom it affects from viewing deliberately the realities of their present situation. "In his opinion," said that gentleman, and the words are deserving of due meditation, "they never would go on well till both landlord and tenant forgot *war-prices*." Let all classes connected with land assure themselves that those are not friends of their future interests, however they may be flatterers of their present persuasions, who encourage them to mistake *recollections* for *hopes*—the feverish flush of prosperity, occasioned by the unprecedented impulse given to agriculture during the war, for a natural or wholesome condition, or one which can be restored by Lord Stanhope's recipe of replenishing the country with *paper*. An artificial currency at home was perhaps an unavoidable incident of a struggle which imposed lavish expenditure abroad, while at the same time it closed the continental ports to those commodities in return for which the precious metals flow into this country. It was, however, one of those imperial remedies of a desperate crisis which would be mortal in habitual use. The sot flies to the brandy-bottle to re-excite his exhausted powers—exhausted by the very stimulant to which he resorts for renewed vigour.



## THE CENTRAL AGRICULTURAL SOCIETY.

(From the Mark Lane Express.)

Sincerely devoted to the interest of the British farmer, we hail with as much satisfaction as he himself can do, the slightest possible prospect of amendment of his present distressed situation. We should, however, deem ourselves highly culpable if, for the purpose of obtaining his momentary approbation, we should either flatter his prejudices, or suffer a delusion to be practised upon him by raising false hopes, and thereby abstracting his attention from those remedies which we firmly believe can alone afford him relief. It is well known that for a long period the advantages which would result to British agriculture from the formation of a "Central Agricultural Society" in the metropolis, have not only been felt but pointed out by us. A "Central Agricultural Society" has been formed, and would to God we could congratulate the *tenant farmers* throughout the kingdom upon the fact. Having some knowledge of the sentiments of those gentlemen who were taking the lead in the organization of this society, and impressed with the belief that the real object was the advancement of their own peculiar views on the currency, we urged, in our last number, the propriety of testing them on this subject, at the meeting of the 15th inst. We did so from a conviction that the agitation of this question would prejudice the cause of the agriculturists, and also from a rumour having reached our ears, that it was the intention of those who were to play the leading part at that meeting, from *prudential motives*, to keep that question in the back ground for the *present*. In this opinion we do not stand alone; the Marquis of Chandos having expressed the same sentiments, and which have been adopted by the Buckinghamshire, and other agricultural associations. The course suggested by us was, however, rendered perfectly unnecessary by the open declaration of those gentlemen who had been previously appointed to move the resolutions. Mr. Spooner, as will be seen from the report, moved the whole of the resolutions, seven in number, *seriatim*, which were all seconded by another gentleman. Earl Stanhope next moved a resolution, which, as it was aptly observed by Mr. Robinson, M. P. for Worcester, "embodied a perfect truism, not only with respect to farmers, but with respect to every class of the community; because it was plain and obvious, that unless a man's means were proportioned to its expenditure, he must be a distressed man." The resolution was to this effect—"That nothing can remove the present overwhelming distress but the adoption of some measure which will either raise the price of produce to the level of the burthens imposed, or bring down the burthens to the level of the present prices." We apprehend no man will dispute the proposition contained in this resolution, taken abstractedly, but the noble Earl has

himself explained the sense in which it was understood by him, and by those who voted with him. Lord Teynham having, in the course of his address to the meeting, been called to order, the Noble Earl observed, that "He wished the Noble Lord who had been called to order to consider that the resolution now before the meeting *related solely and exclusively to the question of the currency*, and that this question ought therefore to form the sole object of his remarks!" The resolution was adopted by the meeting; we must, therefore consider it as the declaration of an intention to press for an alteration of the currency. The Marquis of Chandos urged in powerful language the withdrawal of the resolution, but in vain. We know, however, from personal communication with several persons who were present, that a disinclination to divide the meeting, and thereby weaken the effect intended to be produced, alone prevented an expression of dissent on the currency question, and we feel persuaded that if the Marquis of Chandos had taken one side of the room, and Earl Stanhope the other, the fate of the Noble Earl's motion would have been very different. Upon a careful examination of the speech of Earl Stanhope, in moving the resolution, some strange and startling propositions will be discovered, and a wonderful discrepancy will be observed in the opinions expressed by other noble lords and gentlemen who, if they did not hold up their hands against the resolution, at least did not dissent. His Lordship ascribes the fall of prices entirely to Peel's Bill, and maintains that nothing short of its virtual repeal can raise prices, and relieve the distress of the farmer. Having occasion a short time since to refer to Evans's and Rully's *Farmer's Journal*, we observed a letter dated Dec. 1813, and which appeared in that journal on the 10th January, 1814, entitled, "ON THE RAPID DECLINE IN THE PRICE OF CORN," and in looking through the file for that year we found innumerable communications upon that subject, some of them containing statements of the increased cost of raising agricultural produce at that time, as compared with certain previous periods, and showing the utter impossibility of growing corn at the then prices. Of the truth of these statements we entertain no doubt, knowing that a fall in the price had commenced, and being also aware that rent and expenses never decline as rapidly as the value of produce. Surely it will not be contended that Peel's Bill, passed in 1819, occasioned the distressed condition of the agriculturists in 1813. There are some statements made by his lordship which appear to us not only irreconcilable with facts but with each other. He says, "the resumption of cash payments having greatly contributed to reduce prices, had in a still greater degree contributed to lower wages." Now, we are bold enough to contend, not only that the resumption of cash payments has not affected the value of labour more than any other ar-

ticle, but that taking the country through, where the labourer is paid without recourse being had to the poor fund, the wages of labour have not been reduced in proportion to the price of wheat. His Lordship expresses a degree of kindness for the labourer which we doubt not he sincerely feels, and for which he deserves the highest credit: and after observing that "If the price of wheat rose 10s. per quarter, it undoubtedly followed that the price of bread would rise in a much greater ratio," he goes on to say, "they were bound to the poor cultivators of the soil to take measures to prevent any great increase of prices until a corresponding increase had been made in the price of wages:" and this he proposes to effect by fixing the price of bread; a plan too chimerical, as it seems to us, to deserve notice. Again he says, "It mattered not whether prices were high or low, provided that a proportion between prices and payments were equally sustained." So say we. Such was the opinion of Earl Grey's administration,—such was the opinion of Sir R. Peel's,—and such is the opinion of the present administration. Why, then, does not his Lordship direct his energies to the attainment of an object in which he would be supported by almost the whole body of agriculturists, and aided by the government of the country, rather than waste his strength and mislead those who place confidence in him, by seeking to depreciate the currency, a measure in which he will be resisted by men of all political creeds. And here we would invite attention to the following able remarks of Mr. R. Baker, of Writtle, made at the late meeting of the Chelmsford Agricultural Society, where 332 agriculturists sat down to dinner, and at which the Marquis of Chandos was present; he said—

"I was looking last night at an able report respecting this county, which is not generally known, published by Vancouver in 1795. In that report he gives a description of lands in this district—the average of rent, the aggregate of the composition for tithe, and the amount paid for poor-rate, together with the price paid for wages. He omits nothing of this nature which can throw light upon the matter. Now on referring to this report, I find that the rents of that period averaged 14s 6d an acre—(Hear, hear, and cheers.) The tithe composition was 3s 6d, (Hear) and the poor-rates 4s upon the rack rent. (Hear.) Now what was the situation of the occupiers of that period as compared with those of the present time? I will say that there has been an increase of expenditure on landed property—and also an increase in the expense attending the tithe impropriations: I will give you 25 per cent. for that, which is more than it will bear out. I will add 25 per cent. to all those statements of Vancouver, and I ask you, then, has rent descended to that principle? (Loud cheers and cries of 'No') has the tithe descended to it? (Cheers.) That the poor-rates cannot have done so I know, because with a diminished capital, instead of a diminished poor-rate, we have had a heavily increased charge of this nature. (Hear, hear.) I say, as Mr. Disney said, that I consider the poor-rates in the light of a public charity, and therefore that the public purse ought to support them. I say let them collect that rate in the shape of a public tax, because every one in the State ought to bear his fair share of that impost, which is not the case now. I say, too, that it is the duty of the landlord to reduce his rents to the standard of 1795. (Loud cheering.)

That it is the duty of the tithe impropriator also to reduce his tithes to the same level (*continued cheering*); I say it is the duty of the occupier to reduce his expenditure to the same sum as it stood to that period. (Cheers.) And I say it is the duty of the labourer to reduce his wages to the standard of that period also. When you have tried this, then I say in addition go to Parliament and ask them to give you relief. (Loud cheers.)

The advocacy of relief by reduction of burthens is not confined to the Chelmsford meeting; there were many who dined at the Freemasons Tavern, on Tuesday last, after the formation of the Central Society, who, had they possessed the flow of language which nature has given to some of the most zealous advocates of a depreciated currency, would have given expression to opinions of an opposite character. We wish that every individual deputed by the local associations to attend that meeting had declared his sentiments as boldly as Mr. Wilson, of Allerton Hall, who was deputed from the Leicestershire Agricultural Society. We took a short note of his observations, which, although they may not be literally, will be found substantially correct. They were as follows:—

"After the eloquent address we have just heard, it may appear presumptuous in so humble an individual as myself to offer any remarks, but I feel I should be wanting in that manliness which has been so highly eulogised by the honourable gentleman who has just sat down; I should be wanting in duty to that large and most respectable body of men, who have done me the honour of sending me to represent their opinions on the present occasion, if in paying my tribute of thanks to the gentlemen who have so ably contributed to the formation of this Society, and in expressing my gratification at the splendid eloquence I have heard, in advocating so good a cause, I did not express the regret I feel, a regret which I know will be deeply felt by many in the county from which I come, that that eloquence was almost exclusively confined to the question of the currency. Fearing it should go out to the public at large that this Central Board of Agriculture considered that the only object it had in view—the only means which the Agriculturist had to look for relief, we, gentlemen, conceive that question is more properly the subject of enquiry of Parliament, and in its hands would leave it. There are other subjects, and those of much importance, well fitted to their labours, to which they will pay attention;—such as examining the Fiscal regulations which materially affect the Landed Interest—examining what effect the importation of hides and tallow has upon the Home produce—explaining the Local burdens which press more or less heavily in different districts; such for instance as the County Rate, which in Leicestershire, as appears from late Returns, amounts to 168,330l. 3s. on the land, while 783l. 2s. only is upon Mills and Factories. If this were all, it would be too insignificant to complain of; the same principle affects us more grievously in the Poor Rate,—for instance, in 24 parishes, in one county, containing above 44,000 acres—in a population of 3513, 1121 only are agricultural. I must apologize for intruding so long, but could not refrain from attempting, however feebly, to counteract an impression from going abroad that might be prejudicial to this Society. I must congratulate the Meeting on its establishment this day; I trust it will be countenanced, and its usefulness extended from one end of the kingdom to the other. Let us go on in the good work we have begun. Let us not rest until we have procured that relief which is justly our due, that protection we freely yield to all other classes. Let it be borne in mind we seek none but that

which is in *proportion* to the burdens we bear, and is *consistent* with the welfare and prosperity of all other interests.

Lord Wynford was of opinion that altering "the currency was the first or proximate cause of agricultural distress, yet *he believed that that distress would have ultimately arisen, even although the currency had never been altered.*" Lord Teynham thought that "one cause of agricultural distress was the increased importation of produce from Ireland." It is a remarkable circumstance, that of about 35 members of Parliament who were known to have promised their support before the meeting of Tuesday last took place, 28 voted for Mr. Cayley's motion on the currency in the last session of Parliament.

In making these observations, which may not be in accordance with the sentiments of many of our readers, we are actuated by no other motives than that of preventing grievous disappointment which the *tenant farmers* must feel, if, by the mistaken course of their leaders, the next session should be lost in useless investigation and idle discussion, and at the end of another year they should find themselves in no better situation than they now stand. We say *reduce rents and burthens of every description to the level of prices, and tenants will not complain.*

#### ON THE CONVERSION OF FOREIGN WHEAT IN BOND INTO FLOUR.

(From the Public Ledger.)

In the city article of yesterday's *Times* we find some observations respecting the conversion into flour of the foreign wheat now in bond, on which we deem it necessary to offer a few comments. We should have had more pleasure in recurring to the subject if our contemporary had at once taken what we consider to be the only equitable view of the question, and had given his powerful aid in promotion of the plan suggested; although nothing can be fairer than the manner in which the objections to the proposal are put by him. The *Times* says:—

"The plan which the Government is said to have in contemplation for allowing foreign wheat to be taken out of bond for the purpose of being ground into flour is the subject of much discussion in the corn and flour trades. An argument in favour of the plan has already been made public, and it seems but fair, therefore, to state the reasons which are urged in the trade against it. Their main ground appears to be the gross frauds which would be practicable under it, and the persuasion that the plan could not be carried into effect without detriment to those interests which the corn laws designed to protect.

"There are, it is said, 500,000 quarters of wheat now lying in bond in London which can find no market, and it is therefore proposed, by the supporters of the measure, to get rid of it by converting it into flour and biscuit, expecting that purchasers for exportation will be found for it, releasing thereby the amount of capital now locked up, which could be devoted to other purposes, giving profitable employment to millers and biscuit-bakers, and enabling the supply trade of those articles to be carried on direct from hence with Newfoundland and other places.

"The objectors, in answer to this, say that these anticipations are fallacious, as the continental markets

could not be undersold. The fishery colonies, it is stated, are supplied now, as they have been for many years, from the north of Europe, chiefly from Hamburg. What is there, then, they ask, in the proposed plan, to warrant the expectation that those supplies can be offered on more favourable terms in London than they have hitherto been obtained at Hamburg and elsewhere? To the original cost of the wheat from which the flour and biscuit is to be made must be added, it is argued in continuation, the freight and charges, and the greater expense of making the biscuit here than in Hamburg—about 15 per cent. on the value of the article; all which additional items must be incurred without any advantages to the buyer to counterbalance it. The merchants chiefly connected with Newfoundland despatch their vessels, it is said, from Dorsetshire and Devonshire by the north passage, that they may call at Hamburg, and there take in the requisite supplies; not only biscuit and flour, but beef and pork, which are there obtained at very low prices."

We have so often shown how easily fraud may be guarded against, in carrying out the plan, that it is not worth while to repeat our observations on that point, especially as our contemporary does not go into it on the part of the objectors. It is no begging of the question, therefore, to assume that the conversion and shipment can take place without any fraud on the agriculturists of this country. This being granted, the question of remuneration to the proprietors of bonded wheat, after the grain has been converted into flour, or biscuit, for exportation, is one affecting them. If they see their way clear in obtaining a market, of what value are the opinions of those who think differently? It is the capital of the proposers, and not of the objectors to the plan, that would be risked in the adventure.

But these objections, worthless in application, are not even valid in themselves. In the first place, if it were a question of competition—which it is not—it must be obvious that much time and money would be saved by the importation of wheat, in large quantities, from Danzig, and other places, and then manufacturing it in England for exportation to the colonial fisheries, in the vessels employed in the Newfoundland and neighbouring trade, instead of sending those vessels to Hamburg for their supplies. And this we have on several occasions declared to be the case, without having had our statement impugned in a single instance. We speak with a perfect knowledge of the subject when we again declare, that the merchants connected with the Newfoundland trade in Devonshire, Dorsetshire, and elsewhere, would infinitely prefer the victualling of their vessels at home, if they could use bonded wheat, to despatching them *via* Hamburg; notwithstanding the collateral advantages obtained by their purchasing other stores, besides provisions, at Hamburg, to the general detriment of the English ship-chandler, and the tradesmen from whom he receives his supplies. Are the "objectors" agriculturists? If so, how can they be so blind as not to perceive that, if these vessels took in stores of flour and bread in England, they would complete their victualling of beef, pork, butter, &c., from British produce also? Thus, then, we meet the objections offered, before giving a reason that, if needed, would outweigh all opposition to the proposed plan. Which is, that the holders of bonded wheat have no choice—if the question of competition were really one of any value they have no choice in the matter—for the grain in bond, placed there, much of it four or five years since, at a cost of about a million sterling, is absolutely decaying in the warehouses. It has already deteriorated in value to an immense amount, and if not speedily used will be only fit for swine.

## THE AGRICULTURISTS.

(From the Standard).

When last treating of the agricultural question, we mentioned that the greater breadth of land, which, according to Lord Fitzwilliam's statement, has been laid under grain, is at once a proof and a promoting cause of agricultural distress. It is proof how little the subject is understood, even by the most intelligent, that the *Times* actually uses the fact alleged by Lord Fitzwilliam, and, we believe, truly alleged, as an argument on the other side—

“Yet are there some difficulties to be cleared away upon this question, before we can satisfy ourselves thoroughly as to the truth even of this postulation of the agricultural writers. If farm produce has of late years not fetched remunerating prices, how comes it that, according to Lord Fitzwilliam, a greater breadth of soil has during that period of constantly accumulating complaint been brought under the plough than formerly? They surely will not tell us that the prospect of loss was what induced the farmer to extend his operations over a larger, and therefore (had his complaints and those of his landlord been strictly true) a more losing, surface. If increased cultivation has not been stimulated by a remunerating price, what, we ask, is there which can have caused it?”

The question of the *Times* can be easily answered—*necessity*. The farmer is in a very different position from any other tradesman; he cannot, when profits fail to remunerate, invest his capital in stock for a few months, and retire into ready-furnished lodgings. He has not a capital which eats nothing, and which, if it does not afford some interest, at least makes no demand upon his pocket. The farmer cannot retire from his farm, as the manufacturer may from his manufactory. Whether he cultivate, or do not cultivate, he must pay rent for the land to which he is legally wedded as it were “for better, for worse,” “for richer, for poorer.” He must pay rates, he must pay taxes; he must feed the stock in which the greater part of his capital is invested; he must keep in repair those frail farm buildings and frail instruments of agriculture, which absorb the rest of his capital. Nay, if he will not, by employing them, feed his labourers, in his farm kitchen, or in their own cottages, he must feed them in the workhouse. He cannot hand them over to the manufacturer, as the manufacturer is generally kind enough to hand over his dismissed labourers to the farmer. The mistake of the *Times* consists in supposing that men never toil except for a profit. This, however, is by no means the case. Men are often placed in such unhappy circumstances, that their best hope is not to realize a profit, but to render their loss the least possible; and this is precisely the condition of the English farmers. They have employed the most extraordinary exertions to make good, in quantity of produce, the diminution of its value in the market; and one of the means first employed, with that object, has been to strain the use of their capital to the utmost, by bringing into cultivation, with a view to the market, every acre previously reserved for luxury, or enjoyment, or domestic use; and it is in this way that the breadth of arable land has been increased, and, we believe, in this way only.

It is another proof how little this subject is generally understood, that men actually believe the new Poor Law Bill to be a benefit to the agriculturists. We must, indeed, acquit the *Times*, which has nobly stood forward for the poor, of any participation in this error; but other honest and intelligent writers

have lapsed into it. We are of opinion that the mischief of the Poor Laws' Bill already works against the agriculturists to an extent ill compensated by any diminution of rates; and we are persuaded that if the bill be persevered in, in the spirit in which it has been hitherto applied, sooner or later it will leave the land of England not worth cultivating, even at a bounty. The awfully increasing disproportion between the rich and poor is a prime element in the distress of the agriculturists; and whatever tends to aggravate that disproportion, will infinitely add to the farmer's distress. Adam Smith says, that a fifth of produce added to, or taken from, the market, will diminish prices one-half, or double them, as the case may be. Now, the professed effect of the New Poor Laws in promoting economy among the middle and lower classes, will not be confined to the diminution of one-fifth of consumption, probably not to one-half of the consumption of these classes. We have been informed by an intelligent baker, who has resided for twenty-five years in what may be called an average part of London, whose bread has lost nothing of its excellence, who has had no quarrel with his customers, and no new rival in his neighbourhood that, notwithstanding a considerable increase in the population—notwithstanding the present low prices of all kinds of grain, and the general activity of trade—his business has fallen off full twenty per cent. since the passing of the New Poor Law Bill. The baker in question supplied no parochial establishment; and when questioned how could the New Poor Law affect his business? replied, that many of his customers, and some of them who wore good clothes, too, were so frightened at the prospect of being starved outright in a workhouse-gaol, that they began to half starve themselves at home. Families, he said, of six persons, husband, wife, and children, that used to buy their ten quartern loaves a-week, did not now take five. But this is a view of the subject which we have not room to prosecute to-day; but we earnestly recommend it to the friends of the agriculturists. By bringing down the dietary of the people—by starving two or three millions of their countrymen, the landlords and farmers will starve themselves. It is a melancholy consolation that all these contrivances to widen the disproportion between the rich and poor, will, assuredly, and by an eternal law of nature, lead to a convulsion, in which all property will be swallowed up.

## AGRICULTURAL DISTRESS.

(From the Morning Herald.)

We cannot think that those persons are the real friends to the suffering farmers of England who insist upon the currency question being so mixed up with that of agricultural distress, that the latter ought not to be presented to the consideration of parliament unless in connection with the former. Our own opinions upon the consequences of the alteration in the currency effected by the bill of 1819, have been too often repeated not to be well known. We have seen no reason to change that opinion; but we are equally well convinced that to obtain a favourable hearing in parliament to the claims of the agriculturists, it is necessary that the question of agricultural distress should be placed before the Legislature on its own merits, and not identified with another question, which can only tend to divide the farmers' friends and gave a triumph to their common enemy.

Judging from some of the recent proceedings in agricultural societies at Aylesbury and elsewhere, we are disposed to think that some emissaries of the government have got into those societies, for the purpose of breaking up the strength of the agricultural interests by sowing dissension among them. The Marquis of Chandos has, on more than one occasion, lately advised the advocates of agricultural relief to avoid the fatal error of blending the two questions; for nothing can be more certain than that any such attempt must lead to the failure of the intended application for legislative inquiry and relief. At a recent meeting his lordship expressed his great anxiety that the meeting then assembled, and all others coming in contact with any deputations from associations of other counties, should strictly confine themselves to the question of agricultural distress, and not mix up that question with that of the alteration of the currency. "If the currency question," he emphatically added, "were mixed up with that of agricultural distress, he felt convinced that the consequences would be a total defeat in the House of Commons."

The union of these two questions will, indeed, be the disunion of the friends of the farming interests. We before adverted to the example of this which was afforded by Mr. Cayley's motion of last Session—a motion which, by blending currency and corn, divided the Conservatives, and gave to the unpatriotic enemies of the British plough a decided triumph.

Let, then, the friends of the farming interests profit by experience. Let them rally with a common watch-word round a common banner, and let them not, like the theologians of Antioch, be employed in discussing abstract questions, and refining upon theoretic subtleties, while the battering-ram of the enemy is thundering at the gates.

The noble lord, to whose opinions upon this subject we have already alluded, proposes what we think all reasonable persons must consider the prudent and proper mode of proceeding. He proposes to move for a select committee to inquire into the causes of agricultural distress with a view to a remedy. If that motion be carried, as we have no doubt it will, unless the question of the currency be mixed up with it, then it follows that an opportunity will be given to examine evidence as to the effects which the bill of 1819 may have had in lowering prices, and thereby contributing to bring about the present state of unexampled agricultural distress. If there are other causes they will also be inquired into; and if, upon full and fair investigation, it should unhappily appear that the distress is of such a nature as that parliament cannot give it any effectual relief, at all events the real state of the case will have been demonstrated, and the legislature will have relieved itself from the serious charge of being indifferent to the sufferings and evincing a callous contempt for the prayers of a large and most valuable portion of his Majesty's subjects.

#### THE AGRICULTURISTS.

(From the Norwich Mercury.)

We would especially point the attention of the occupiers of land to the letter signed J. S. which appears in our Journal to-day. We agree with our correspondent in the belief that the most intelligent, and indeed the great majority of the farmers are not so lost to their real interests as to be deluded by the bubble of the currency. Their trade is simply af-

fectured by the two principles—demand and supply; their only protection against the evil they are suffering is an adequate reduction of rent, tithe, and taxes. The other expences, seed-corn, labour, and tradesmen's bills fall with the price of their commodity. Establish the power of growing with a sufficient profit above the outlay—which is only to be done by diminishing the outlay—and the trade will then stand upon the same foundation that all other trades are placed. As it is, they have been and are now the victims of a falsely so called system of protection, yet which they have all along been trained on to expect an average rate which has rarely been reached and, never supported, and to which their expences have been thus screwed up. In this simple but clear and true statement lies the whole question. The wisest men among them see this—and to those who do not, fact and experience have afforded no instruction.

If any journal in the kingdom has a right to the title of the Farmers' Friend, it is our own. We may honestly boast that we have written more and taken more pains to elucidate every question connected with agriculture since 1813 than any other, scarcely excepting those who devote their pages wholly to agricultural reports. We once more then, urge the tenantry to consider what they have gained by committees and delegates from Mr. Webb Hall's abortive association scheme, down to the "agitation" project which is now on foot. In their present depressed circumstances a false light, which has led them on in hopes of relief from extraneous quarters, when the right road lay in an opposite direction. A new species of delusion is just now beginning. The writers of agricultural reports are endeavouring to circulate the belief that from the consumption of wheat in other ways than the subsistence of men, owing to its cheapness, the surplus will be absorbed and prices rise before the next harvest. This may possibly happen, but we rather suspect it is only a part of the same juggle to draw the attention of the farmer from lessening his expences to the hope of higher prices. Let him look to Earl Fitzwilliam's unanswerable statement on this head for an answer to the fallacy. If prices rise, the warehouses will open and foreign grain beat down the price of the home growth. And this effect must always follow, for the instant the high price brings into action the low duty, the supply will exceed the demand. It has been shown a hundred and a hundred times that such must be—observe, *must be*—the inevitable result; and thus it is that protective laws become no protection at all.

The bitterest enemies of the landed interest, and of the farmer more especially, are those who would call off his attention from these truths, and set his mind and money gadding after committees of delegation and inquiry. All inquiry is satisfied by the fact that the kingdom has been supplied, and more than supplied, by its own growth and the growth of Ireland and the Colonies for the last three or four fair seasons. This is the truth, the whole truth, and no self—no effectual relief—can be had but from diminution of rent, tithe, and taxes.

#### THE CENTRAL AGRICULTURAL SOCIETY.

(From the Standard.)

Whatever difference of opinion, and it must be slight if any, can exist, as to the proceedings at the agricultural meeting yesterday, every friend of the British farmer must rejoice that a general association has at length been formed, and that it is determined to press an inquiry upon the legislature.

## TURF INTELLIGENCE.

It is commonly remarked, that racing is a genuine English amusement, and this generally and justly received opinion might have been extended so as to embrace whatever relates to the horse in form and manner; for, although the attention of the breeders of this country has been mainly directed to the saddle and the harness horse, yet our heavy draught horses, though susceptible of great improvement, are superior to those of any other country. It is true, the persevering Bakewell, to whom the English farmer is originally indebted for the present improved state of his stock, committed an unfortunate mistake when he imported the huge Norman marsh horse for the improvement of the Leicestershire breed; it was an error in judgment; which, however, proved his ignorance of the physiology of the animal whose valuable qualities he was anxious to increase. Mr. Bakewell was evidently unacquainted with the nature of the bone, tendon, and muscle of the varieties of the tribe; he was not aware, that, even in regard to mere bulk, to leave solidity out of the question, the leg bone of the thoroughbred was superior to that of the dray horse. We are of opinion, there is not a brewer's horse to be found whose bone below the knee would measure so much as the same part in his Majesty's horse, The Colonel, Mr. Theobald's Laurel, Sir T. Stanley's Battledore, or Mr. Batson's Plenipo. However, we will leave the farmer to the improvement of cattle for heavy draught, while we take a review of the subject more immediately the object of our miscellany.

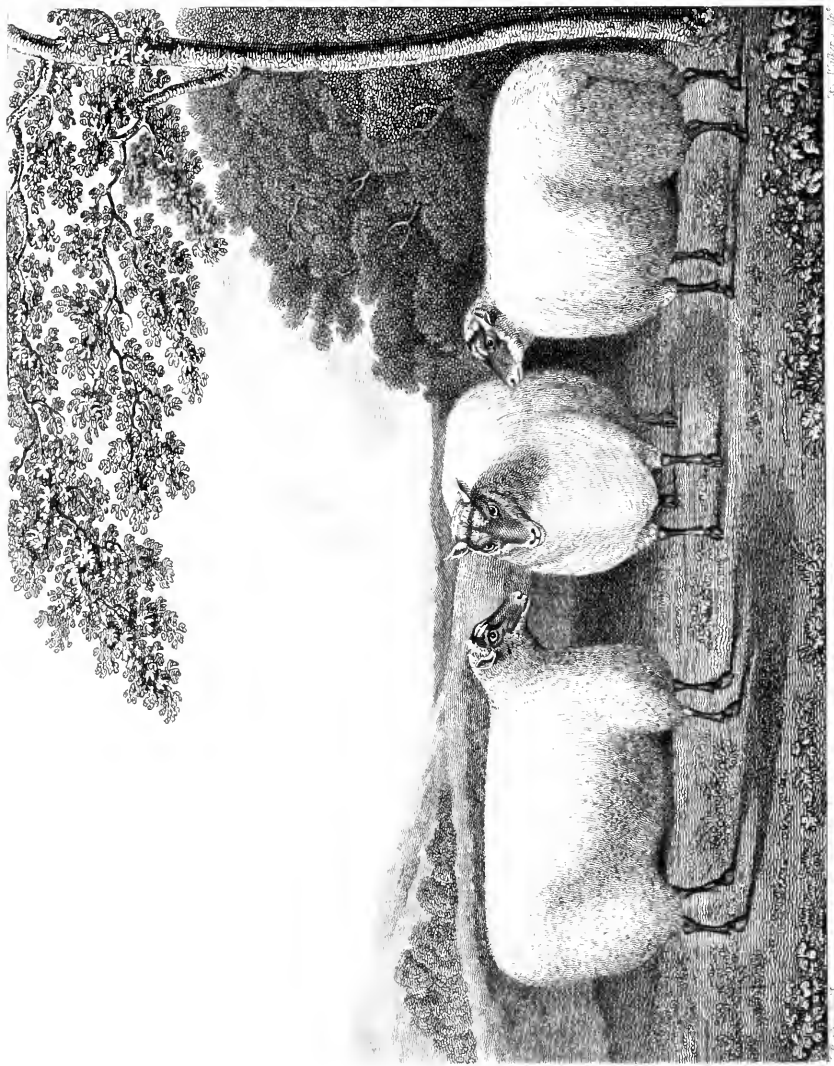
That like produces like is a generally admitted axiom, the truth of which is borne out by the evidence of facts; thus the Americans evince as ardent an attachment to whatever relates to the horse as their English progenitors; and, although for reasons too obvious to need enumeration in this place, they have not yet equalled the English racer, or brought the various ramifications of the Turf to that degree of perfection which characterizes its various departments in this country, they have made rapid strides in the progress of improvement, and have been successful in producing a sort of horses, which, in that almost everlasting pace, the trot, leaves those of every other country at an immeasurable distance. This perfection in the trot has not been attained so much by the kind of horse used for the purpose, as to the mode of his education; from the time the young animal is handled, he is subjected to this pace, and not being allowed to gallop, the trot becomes so habitual, that if urged to greater speed, he endeavours to increase this pace, but never breaks from it.

Since the peace, which put a period to the most obstinate and bloody war which ever desolated Europe, the intercourse of the natives of England and France has been more cordial, and friendship more sincerely cultivated, than at any former period; and to this circumstance may be attributed that partial or local zest for racing, which has been lately manifested on the other side of the Channel. However, the taste of the two countries is essentially different; and as it has hitherto been found impossible to induce the French to adopt the English style of pursuing the fox, we are of opinion, notwithstanding present appearances, that, should any circumstance transpire to induce the numerous English residents to leave that country, horse racing would entirely fade away.

In the present dull and languid state of racing affairs, owing to the intervention of winter, and other causes which we noticed in our preceding publication, we may at least discuss suggested improvements, if we should not succeed in prevailing upon those more deeply interested in Turf affairs than ourselves to adopt them.

We have repeatedly stated it as our opinion that the racer is brought upon the Turf at too early a period of life; and we may here observe that, owing to the premature exertions to which he becomes thus subjected, he is often driven from it before he has attained maturity—frequently so shattered as to be rendered useless or of trifling value ever afterwards. If what may be called the trading part of the Turf are determined to persevere in this pernicious system, what possible objection can be offered to the provision of good stakes for racers beyond the age of three years? The most important stakes in the country, particularly the Derby, the Oaks, and the Doncaster St. Leger, are specifically appointed for three-year-olds; and the superior competitors in these races, are afterwards excluded from any splendid prizes if we except a few of the Cups, most of which, however, are handicapped, and a superior horse thus deprived of his fair and legitimate pretensions. It may be remarked, that a horse of well-known and acknowledged superiority, would run away with every thing, if some means were not adopted for counteracting his superior powers; but, as these are generally over-rated in the handicap, a grievous punishment is inflicted on a noble animal merely on account of his excellent qualities. Surely a more eligible method might be adopted in the management of these matters than that so commonly resorted to at the present moment. But, above all, why not provide good stakes for horses beyond the age of three years; such a system would not operate injuriously on the present three-year old stakes, but would increase the interest of the race course, and most likely prevent many good horses from retiring so early from the active operations of the Turf. Plenipo and Queen of Trumps,—are they to be broken down by unreasonable weight, or abandon a calling in which they have so pre-eminently distinguished themselves?





THREE PRIZE SOUTH DOWN WETHERS,

BRED BY MR S. GILBERT, STOVENEHUR, NEAR LEWIS.

Exhibited at the Smithfield Show 1835

From an Original Drawing by L. Parker.

London Published by J. Rogerson, F&S 1st 1836



# THE FARMER'S MAGAZINE.

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No. 2.]

[Vol. IV.

## THE PLATE.

MR. S. GRANTHAM'S PRIZE SOUTH-DOWN WETHERS.

These three beautiful sheep, thirty-two months' old, bred by Mr. Grantham, of Stoneham, near Lewes, were exhibited at the Smithfield Show, on the 14th of December last, for which he obtained THREE PRIZES, namely, the first premium of ten sovereigns, as the feeder; a Silver Medal, as the breeder; and the GOLD MEDAL, as being the best pen of South-Down sheep in the exhibition. The beautiful symmetry of the sheep, and the excellence of their breed, was the subject of universal admiration—they were slaughtered by Mr. Giblet, of Bond Street, and weighed, No. 1, twenty-one stone; No. 2, twenty stone six pounds; No. 3, twenty-one stone three pounds—Mr. Grantham's stock is of the very first class, and held in the highest estimation; he has now found it necessary to have a public day for letting, as his tups are eagerly sought after by the first agriculturists in the kingdom; they may be seen from July till the end of September.

## ORIGINAL LETTERS.

No. IX.

### OBSERVATIONS ON THE REPORT OF THE POOR LAW COMMISSIONERS —(CONTINUED.)

TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—I left my last observations on the report of the Poor Law Commissioners, at the evidence of the master of Aylesbury work-house, whose evidence it seems respecting old Eritt; and old Hearn was made a strong-hold by the commissioners in justification of the separation of old and infirm married paupers. The commissioners then go on to cite a passage from the report of Mr. Hawley (an assistant commissioner) in favour of their own views on this subject, and which may have been, and undoubtedly it was, quite conclusive to the minds of the commissioners, but I must think they go a little too far in accusing those who happen to differ from them on this principle, of being *ill-informed persons*. People who live in glass houses should certainly discourage the practice of *throwing stones*, instead of being found among the first to adopt this resource, either as a means of defence or recreation.

In my former letter my objections to the proceedings of the commissioners as regarded the workhouse arrangements, related entirely to the treatment of the adult paupers, and as, since I wrote that letter, I have had several opportunities of ascertaining the treatment exercised towards the pauper children in a neighbouring union, and as I have derived unmeasured satisfaction from the arrangements of that department, it would, I feel, be disingenuous on my part if I did not mention the great object attained by the poor law amendment bill, in respect of the moral education of the young, and the decided advantage it derives from a comparison with the former state of things. The work-house to which I now allude was originally built by three adjoining parishes, for their mutual accommodation and benefit, and was regulated under Gilbert's Act, up to the time of the passing of the amendment bill, when the old union was dissolved, and the three parishes became united with about thirty other parishes, and then this house was selected as the receptacle for the infant paupers. Now, during the existence of the abuses of the old poor law system, a circumstance occurred to me connected with the work-house I

have just mentioned, which I shall now relate for the purpose of illustrating the evils of that system, both as regards the neglect of the children, and the extensive means of provision it occasioned for the destitute. In the autumn of 1832 I had an application from the governor of the above work-house, to purchase a horse which I had offered for sale, and the price I asked for the nag was twelve pounds, which his Excellency seemed to think was a little too much money. At that time it happened that I wanted a boy to drive plough, and as I knew he had one among his household that would do for my purpose, I made him the offer that this boy should come and work out the mare. This offer was immediately accepted—my mare went to the work-house, and the work-house boy came every morning to my farm, according to the agreement for three shillings a week, and *this three shillings a week was consequently paid to the governor for the boy's board in addition to three other shillings a week paid by the parish to which the boy belonged*. It is true that in order to avoid this sort of traffic in labour, that the three parishes which belonged to the house had a standing rule, that no labour was to be so supplied to either of the united parishes, but as the parish in which I live did not happen to belong to this union, it did not, of course, come within this restriction. The above is not an isolated instance of the destructive system—hundreds of similar cases at that time of the day were to be met with. But now for the boy himself. He was an illegitimate child, and had been born and bred in this work-house. At that time he was about sixteen years of age. He did not know a letter of the alphabet, neither did he know even a word of the Lord's prayer; he was well fed and determinedly lazy, and I have since ascertained that he was in the habit of amusing my other lads and boys with stories of the most disgusting nature, of occurrences in which he was a party concerned at the work-house; and I do regret, (because I should like to edify the sticklers for a continuance of the old work-house system,) that common morality prevents me more minutely mentioning this poor boy's revolting narratives. Now let us contrast the moral condition of this boy with the children I have lately had the pleasure of seeing at this house. I have on more than one occasion examined them in their religious instructions, and not only do they know the Lord's prayer, of which my poor workhouse boy at the age of fifteen did

not know one word, but on my putting to them the principal and leading questions from the creation of the world, and even to the death of Moses, and the accession of Joshua, I did not fail in any one instance of obtaining a correct and reasonable answer from one or the other of the class, which consisted of about twenty boys, of from ten to thirteen years of age.

It must, however, be quite unnecessary to proceed with this comparison—no reasonable person can doubt for a moment the improvement effected by the amendment bill in this department, and future generations will bless the day when the cultivation of the human mind was extended to the pauper children of the community.

In mentioning the expedient of migrating families of labourers from the southern agricultural districts to the northern manufacturing towns, the commissioners call the attention of the Secretary of State to the steps they have taken to forward this object. These proceedings appear to have been conducted alike with discretion and zeal, and not only have the commissioners fully established the fact, that the manufacturing towns do at this moment furnish a ready market for a considerable additional supply of labour, but from the information they have obtained, and published, they have also excited a spirit of enterprise for this undertaking. The guardians of an union in this part of the world adopted a capital plan in this respect. They selected an active and intelligent labourer from one of the parishes belonging to the union and sent him to Manchester in order to ascertain if there was employment to be found, at what rate of wages, and to inform himself of all matters relating to such an enquiry. The result was, the man returned fully impressed with the conviction that there was plenty of work, and of such a nature that an agricultural labourer would find no difficulty in turning his hand to, and at wages much higher than those paid by the farmers. This man with his family has since gone off to Manchester; some of his friends intend to join him in the spring, and many others are anxious to be afforded the means to make the same experiment, and I have no doubt that this new market for labour will eventually absorb a great portion of the surplus supply of that commodity in the overpopulated agricultural districts.

The successful issue of this attempt is to be attributed to the good management with which it was conducted. Had a cart load of paupers been sent off to Lancashire, and turned out in the High-street of some large manufacturing town to provide work for themselves, without the means of subsisting until work could have been obtained, the probability is, that they would have been speedily reduced to indigence and want, and consequently immediately would have proceeded to beg their way *back to their parish*, where their "tale of woe" would have been sufficient to prevent any others from making a like attempt. After having disposed of the subject of migration to the manufacturing districts, the commissioners mention the more serious undertaking of Foreign or Colonial emigration, on the principle of which they do not seem to entertain a very favourable opinion, and they publish a table which they truly state "displays the very small extent to which parishes have resorted to this provision." Now the commissioners do not mention the circumstance of their refusing all assistance to parishes where the paupers were desirous to emigrate to the United States. I have not the means of knowing how extensively this fact operated to discourage Foreign

emigration, but in a parish which adjoins that in which I live, and which parish I find mentioned in the table I have above alluded to, as having applied to the commissioners for their assistance to send twelve persons to Canada, did, I know, apply for aid to send nearly thirty to New York, but when for this destination the commissioners refused assistance, the paupers themselves, with the exception of twelve,—declined leaving home for an English colony.

The policy of this proceeding on the part of the commissioners, opens a wide field for difference of opinion. For my own part I confess I cannot make the distinction, and it appears to me, if it be *wise* to encourage emigration to Canada, it must be also *right* to facilitate this object to New York, or elsewhere. There may be numerous reasons why the English government should *prefer* emigrants proceeding to one of our own colonies, but if a case should occur, (and such a case did happen in the parish I have mentioned,) by which a number of paupers being refused assistance to emigrate to New York, as the only alternative of such a refusal were to remain at home, I cannot perceive any reason that would justify the accepting such an alternative. I now come to the mention in the report of that part of the amendment bill, on which I have had more difficulty in forming an opinion of my own, than I have had on any subject connected with the principle of this bill. I mean the bastardy clause.

I confess my opinion is entirely with the clause as it originally stood in the bill—before the amendment in the House of Lords—and I should now be glad to see the statutory provisions repealed under which proceedings may be taken by the parish against the putative father. I know, a person holding this opinion, may be much misrepresented, and harshly dealt with, even by amiable and well-disposed people. This is an unpleasant reflection, for however immaterial a matter it may be to differ in opinion with the thoughtful and the ignorant, or to be attacked by the profligate and the vicious, it is nevertheless a matter of deep regret to differ with the enlightened and well-disposed, who persist in regulating their opinions by an amiable theory rather than by stern practical results. What, I ask, has been the effect of the late bastardy laws? Increase of poverty, and increase of crime, and a consequent defalcation of morality and virtue—of continency and honour. Take a single instance of betrayed confidence. Bring before you a ruined and forsaken female, and you *naturally forget the perverted principle which has been mainly the means of her fall*, and call only to your mind the vile and heartless seducer, and the strong and natural question which arises to you is, "is this wretch to escape punishment, and to avoid retribution, and is the betrayed and forsaken to be left in poverty and in misery? Who can reply in the affirmative? On the other hand take a more extended view of the effect of the late legal protection to the weaker sex. Deliberately weigh the fact that seventy-five out of every hundred marriages in the lower walks of life, under this system have been compulsory, arising from fornication; and think on the circumstance that the twenty-five (out of every hundred) forsaken owe their fall from virtue to example, created by, and hope of, getting married, arising out of, the liability of the seducer to support the offspring; and also bear in mind that the seventy-five marriages being *compulsory*, are generally imprudent and unhappy.

Ought not a principle so destructive to be destroy-

ed? Who can reply in the negative? If we allow our feelings of sympathy to protect the weaker and to follow with retribution of this sort the stronger offender, as the means of preventing this prevailing crime, we shall assuredly grasp at the shadow, but if the course is followed to which reason points as the real means of prevention, and which certainly appears to me to be found in the original clause of the bill, we shall truly then deal with the substance of the evil. Cases of hardship will undoubtedly at first appear, instances of depravity and suffering may come within our knowledge, which may for the moment cause us to doubt the justice and wisdom of a proceeding which has been adopted in our minds after the most confirmed reflection; but let the principle be followed, harsh as it may seem—neither looking to the right hand or to the left, and it will be at no protracted date that we shall have the satisfaction of being convinced that we are pursuing the right course, and the instances of evil (which will immediately arise out of the pursuit, to virtue,) and without which no good and moral object can be again attained, will become less and less. In conclusion, of these observations on the above subject, the commissioners add, “it appears to be commonly overlooked in the complaints on this subject, that for the injury of seduction, the courts of law afford a remedy; and to any objection which might be made, that this remedy is too costly, or is otherwise out of the reach of the poor, we submit that the proper remedial course of legislation, would be to render justice, dispensed by proper judicial functionaries, accessible to the poorest classes of the community.” The force and desirableness of this last suggestion, must, I think, be admitted by all. Under existing circumstances it would be an insult to feelings already outraged, to point out to a betrayed and *poor* female the protection a court of law would afford her,—such a protection would be about as accessible to her circumstances, as the shores of Great Britain were accessible to the power of Napoleon Buonaparte, and consequently it would be a most barbarous enactment to remove one tittle of the present liability of the seducer, before a remedy more severe in its nature, but different in form and purpose, was provided for his punishment.

The last paragraph in the report is as follows—“In concluding this our first annual report, we beg to assure your lordship that our labours are sustained by an entire conviction that the act in every main provision, will fulfil the beneficent intentions of the legislature, and will conduce to elevate the moral and social condition of the labouring classes, and promote the welfare of all.” Now, I do hope, and believe, that the “*main provisions*” of the bill can promote beneficent views, and elevate the *moral and social condition of the labourers*,” if they be applied with humanity and discretion. But if these *provisions* be placed in the hands of inconsiderate and unfeeling men, if the *immense power* which this bill confers on those who are selected to administer its purposes, be perverted and abused, either by ignorant or unprincipled officers,—for the effect to the community will be the same whether the perversion arises from ignorance or crime—then indeed may we apprehend the worst of evils to follow. It is true we shall know the quarter to look to for retribution, not to the legislature, but to its servants. And on the other hand if the purpose of the bill succeed, and if it be *hitherto used* it will succeed, then, although the nation will acknowledge the wisdom of the legislature in adopting such means as the occasion required, will nevertheless turn with feelings of gratitude and

pride to those men who from their sagacity and prudence, their honesty and undivided purpose, became the instruments of its successful application. There can be no doubt but that difficulties of an extreme nature will present themselves to all persons in authority under this act, and motives, and conduct, even when regulated by strict humanity and principle, will be misrepresented and traduced, and that restrained vice and compelled industry will be discontented and clamorous under their new circumstances. Let, however, the remedy be pursued, guided by the conviction that no injury can equal that which is perpetrated (either by an individual or a society of individuals) for the purpose of breaking down and subjugating the human mind—or of robbing men of self reverence—or to attempt to bring them to a stand, more in fear of outward authority, than of the awe that would be created by the cultivating of reason and conscience in the soul.

I am Sir, your obedient  
and very humble servant,  
Sussex, Jan. 5. \_\_\_\_\_ AGRICULTOR.

No. X.

#### TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—I have been a constant reader of your valuable publication the Farmer's Magazine, and have read many excellent letters on agricultural distress, but have never been fortunate enough to find one that could point out an efficient remedy for our relief. The one I have just been perusing is signed Q. E. D. That gentleman's letter goes to prove, that it is rent that is a burden to the farmer. I will grant that rent is a burden among the many he has to contend with, yet it is not one of any consequence when compared with labour; it is that in my humble opinion that oppresses us so much. For instance, where I now reside, when wheat was 80s per quarter we paid our labourers 15s per week and they were contented; now wheat is 40s per quarter we pay 12s, and in most cases 13s 6d. How does that agree? we have but a reduction of one-fifth on our greatest outlay, and a reduction of one-half on our greatest produce; we know men must live, and they cannot live on less than 12s as provisions now are, and support a family; yet if things are to continue as they now are we must fail, that is certain. What is then to become of the poor? You may say there are plenty more fools to take your business and support them; that is all very good, but men will not continue to ruin themselves long with their eyes open. For instance, one of my farms consists of eighty acres of heavy land, on which I keep four horses, and pay 18s per acre rent; last year I sowed half with wheat which will produce me more than 200 quarters; 16 acres was clover, and 12 acres canary, and I could show you that I shall notwithstanding this great crop, (for such I believe you will acknowledge it,) lose money. What is the result? I must lay this land down and graze it with sheep, and of course by that means throw four or five men out of employ. Now if this system is adopted throughout England, which I believe you will acknowledge is the most judicious, what a burden of poor we shall have to maintain, and of course the price of wool and mutton must fall, and then we shall lose by feeding this land. If then neither farming or grazing such land answers, what is to be become of it? and as a great part of England consists of heavy land, and of course has

its proportion of poor, they must starve or the extra poor rates be put upon the good soils and thus oppress them. If you think this worthy an answer you will oblige your's respectfully,

A KENTISH FARMER.

No. XI.

### AGRICULTURAL SHOWS.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

If an apology be deemed necessary for my addressing you, I presume I have only to state that I am equally desirous with yourself to see the prosperity of the agricultural interest. In some late numbers of your valuable periodical, I have read very pleasing accounts of shows of agricultural stock, and ploughing matches in different places; and feeling a conviction that exhibitions of this nature have a beneficial influence on agriculture, I beg to propose one question. What are the probable advantages, and what the effects on the agricultural interest have periodical shows of stock, ploughing matches &c.? I am living in a county where we have nothing of the kind, but am anxious to see one established. If you or one of your correspondents would communicate his sentiments in answer to the foregoing question, I should be greatly obliged.

I am, Mr. Editor, your obedient servant,  
A SUBSCRIBER.

Salop, Jan. 9, 1836.

No. XII.

### ON ROT IN SHEEP.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—As your Magazine is taken in the neighbourhood in which I reside, through my recommendation, I naturally feel anxious that you should maintain its reputation, which I consider to be somewhat injured by your injudicious insertion in your last number, of a letter "On Rot in Sheep." The writer of that letter says, "it is surely no longer believed that it is wet or cold which affects the animal." And adds, "I am inclined to believe that the butter-cup is the plant which is the cause of the mischief;" and as a remedy recommends "earth as good for sheep"; and thinks that he lost his sheep in 1833, which he put into a field of old grass, which had been previously watered, in not stocking the field sufficiently; thus by the length of the grass preventing the sheep from getting at the worm casts or other earth." He then very seriously goes on to speak of hogs, and maintains that earth is good for them. The author also recommends earth as necessary for cattle and horses: indeed, it appears with him to be a panacea for all diseases. I wonder he did not go further, and recommend his readers to eat earth, and bring forward, in proof of its efficacy, the case of the natives of New Zealand, who are said to eat earth to prevent the pangs of hunger.

Now, as these remarks may probably mislead the young and inexperienced agriculturist, I beg, as a practical farmer and grazier, to give my opinion of the cause, and to state what I have always found to be a prevention of the rot in sheep. When the autumn is warm, sultry, and rainy, causing a luxuriant and unsubstantial herbage on

wet and low land, sheep fed upon such land will invariably take the rot. From an attentive consideration of every circumstance, it is evident that superabundant moisture of food is the real cause of this disease; and the only preventives are absorbents. The best absorbent is good grass or clover hay, peas, or beans: these I tried with success in the years 1829, 30, and 31, when several of my neighbours lost the greater part of their flocks. And I will venture to say that sheep will remain sound on the wettest land and in the worst of seasons, if taken up at night and fed with good dry food.

I am not surprised at the author losing his sheep after feeding them upon land which had been previously watered. The celebrated Mr. Bakewell was of opinion, that after May-day he could communicate the rot at pleasure by flooding, and afterwards stocking his land with sheep; the flooding and warm weather causing an abundant and unsubstantial herbage. If the butter-cup was the cause of the disease, it would occur every year, whereas it never happens but in a wet and warm season, except on land that has been artificially flooded, or not judiciously laid dry.

I am not going to deny that sheep and other animals will eat earth, but when they do, it shows a depraved appetite, and is a certain proof of the presence of disease, which earth is sure to increase.

If you think the above worthy to appear in your useful Magazine, it is at your service.—I am, Sir, your most obedient servant,  
J. H.

Manor-Farm, Bedfordshire.

No. XIII.

### TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—I threatened you in my last with another infliction,—a few more observations from me upon the subject of legislative measures for the relief of agriculture.

On the propriety of interfering with the currency as one of the means I expressed in my concluding remarks, an opinion that it would be unadvisable. Reflecting still further upon it, I am the more confirmed in that opinion. Some have named those who advocate a change in the currency, "Currency Doctors;" I, however, shall not so term them, but only beg leave to hint that there is a pretty decided impression upon the minds of a very large majority of influential men, that there has already been enough of currency doctoring,—already enough of tampering with that which but few understand at all, and which hardly any are able so to explain as to definitely convey their meaning to others upon the subject. To be sure the meaning of the gentlemen who are now loud in their demands for a change is pretty definitely evident: they would depreciate the currency, thereby hoping in the same proportion to raise the price of agricultural produce. In this, however, I think they would in a very great measure be deceived. They might be transiently gratified by a trifling advance; but a reaction would most likely very shortly take place, and leave them as they were. And no wonder, the demand being an unnatural one, not resulting from the actual wants of the community. But suppose prices were actually raised for a longer period than I deem possible (for they could not be permanently advanced whilst we remain at peace with all the world, as at present), what would be the consequence? In the like pro-

portion that the cost of living would be enhanced, just so much would the cost of manufactured articles be enhanced, which the farmer must buy, (and where would be his gain?) or the manufacturer must fall into distress for want of demand for his goods, hands unemployed, and all the concomitant evils following, which must then return upon the farmer, and perhaps with twofold effect,—prices reduced again to the present rates now complained of, and those prices paid in a depreciated currency!

In short, common sense dictates that the price of any article must be governed by the demand, that demand being caused by the consumption; the article being consumed and more demanded to be also in its turn consumed. The mere creating of more money cannot permanently increase the price,—the mere facility of being able to buy and sell a thing over and over again, and passing it from hand to hand, whether the article be a manufactured one, or meat, or bread, does not consume it; the mouth and wear and tear, must do it, and thus the demand is created. If you make a parcel of rags current in the shape of notes, those who would have them must produce something in exchange for them. Value for value must still be the order of dealing, let whatever be the thing which represents the goods. Increase the medium, the supply of goods being the same, more of that medium must be given to represent the thing passed from one hand to another in the like proportion that you have increased it; decrease it less is necessary accordingly.

I may not have so extensive a vision as these gentlemen, but it appears to me that no good end can possibly be attained either for themselves or any other class of the community by a change, and they are deluding the occupiers, the tenant-farmers, by false hopes which cannot be realized. Rents must and ought to be greatly reduced; it is but fair, it is but honest. It is unworthy of landlords as men to take advantage in times like these of the law-shackled and soil and local attached occupier, and drain every sixpence of capital he possesses from him, and leave him only the poor-house, in which to pine the remains of life away! It may be said that I am too severe upon the landlords, and that how many of them have made large returns to their tenants at their audits? Some of these no doubt have made handsome returns from right motives (and I honour a really humane act let it come from whom it may), but it is not the legitimate mode of sustaining an efficient and respectable tenantry. It is a mode which only deludes to further loss and ultimate ruin. Lower rents at once to what the tenant can afford to pay with things as they are; and then he is unfettered, and will improve the soil he tills, because he will be secure of reaping the benefit thereof; he will then bring forth all the capabilities and energies of himself and his occupancy, and be the just pride of his landlord's estate, as far as an occupier can be, (and he ought not to be less!) an independent tenant.

But I find that I am proceeding, perhaps, at too great a length for your columns; under your indulgence something further in the same strain, arising out of the subject commenced with, I shall trouble you with in another letter. REFLECTOR.

*Strand, Dec. 16, 1835.*

## ON THE CULTIVATION OF THE PARSNIP.

BY COLONEL LE COUTEUR, OF BELLE VUE, JERSEY.

The culture of this admirable root is almost peculiar to the channel islands: it is raised with extreme care in Guernsey and Jersey; the crop in

either being excellent, both for domestic purposes, and for cattle.

For this last purpose it has been cultivated for centuries, being considered the best root for fattening all sorts of cattle, and swine. Draught horses require no oats, if fed daily with twenty pounds weight of parsnips in addition to hay or chaff; and cows with forty pounds weight per day at two feeds, in addition to hay and straw, will yield a beautiful high flavoured butter of a rich yellow colour, even in the depth of winter.

The meat of oxen fattened by them is superior to any other; and that of pigs is peculiarly rich and sweet, swelling to a great size in boiling; they only require to be fairly tried, to obtain general cultivation in suitable soils. Of this it is necessary to speak carefully, as it is almost doubtful, whether parsnips could be grown at all in poor stoney or flinty soils, if shallow, as they absolutely require a deep soil in which to vegetate freely. It is not so absolutely necessary that the soil should be rich as that it should be deep, for by the drill system of husbandry, and placing the manure into the bottom of the furrow, at nine or twelve inches depth, or deeper, if possible, even in poor sandy soil, a beautiful and heavy crop of parsnips have been obtained, where almost no other root would have succeeded.

The ordinary mode of culture, is to prepare the soil by a slight ploughing early in September, to break up the ley. In January or February it is ploughed a second time with a slight plough, followed immediately on the same furrow by a heavy one, which, in some cases, turn eighteen inches of soil. Into the bottom of this deep furrow, stable manure is pushed. The soil is thus as completely stirred as if it had been trenched with a spade.

The seed is then sown broadcast, and well harrowed in. The moment weeds appear, the parsnips are carefully hand-weeded, which operation is repeated twice; but is now becoming exploded as being too expensive; hoeing answering all the purpose, and being infinitely more expeditious, as well as cheaper. It is a peculiar property of this root to shoot down to any depth, to seek for manure; some intelligent farmers having declared, that they have seen them four feet long, and as thick as a man's leg, in rich light soils. The ancient mode of taking them up, by means of a three-pronged fork, singly, was so slow and toilsome, as to deter some from their cultivation; but a new method has lately been introduced, which affords a large saving of time and labour, by means of a plough, with a rather blunt, or worn-out furrow slice, not sharp enough to cut the parsnips, which are thus forced or drawn out of the ground by the mere pressure of the turn furrow against the soil, without being scarcely ever touched or hurt by the plough. The parsnips are then forked out like potatoes, and collected into heaps. Two men, with a plough and a pair of horses, will thus take up half an acre in a day.

It may not be uninteresting to state the result of an experiment which I made in 1833, in order to introduce the drill system of husbandry for parsnips. Half an acre of deep rich loam was pared, and burned, between the 5th and 11th of April; the ashes were then spread over the whole: over one half of the piece of ground five loads of stable manure were added, when the whole piece was ploughed about twelve inches in depth, and was then brought into fine tilth by harrowing and rolling. The seed which had been in moist sand a fortnight, and was just germinating, was then sown in drills, two feet apart. This came up in seven days, some seed that was put in dry, only came up sixteen days later. On the 8th of June, the parsnips in the drills were

thinned out to four inches apart, and were afterwards horse-hoed, with the hoe-plough twice, an hour's work; and a man was two days cutting out the weeds from between the parsnips. During the remarkable drought which ensued, the small parsnips were drawn to thin them out, which thinning produced 307½ pounds, which were given to the cows, then very badly off for grass, which was more like hay than green food, but the parsnips preserved them in full richness of milk and cream. The crop, notwithstanding the drought, produced upwards of thirteen tons the acre. It is worthy of remark, that the part manured with the ashes alone, was as fine as that to which the stable manure had been added to the ashes. Two rows of the Alteringham or cattle carrot were greatly inferior in point of size and produce to the two rows of parsnips on either side of them; there was also this remarkable difference to be observed; the carrots were always infested with weeds, the parsnips not so, owing no doubt to this circumstance. The small divided leaf of the carrot casting no shade, and filling no space, encouraged, as it were, the growth of weeds; whereas, the large spreading leaf of the parsnip, covering the soil, and smothering all other vegetation, destroyed them: hence, also, the parsnip has another advantage over the carrot, as its ample foliage, draws larger nourishment from the dews and atmosphere, which was clearly evinced by their superiority of size and produce. Fresh sea-weed ploughed into the soil is found to answer remarkably well as a manure for parsnips, and they have succeeded very well by being made as Swedish turnips are in the Lothians. They must be housed dry like potatoes; they are the best preparatory crop for wheat.

*London, 4th Jan. 1836.*

### TO THE LANDLORDS AND FARMERS OF GREAT BRITAIN.

Gentlemen,—The meeting of parliament is at hand, and although many meetings have been held, and much has been said both as to the causes and cure of the intolerable distress which has long been pressing the agricultural interest of Great Britain to the earth, I cannot say that any thing very satisfactory as to either point has as yet been brought forward at them. Now it occurs to me that one very evident cause, and indeed the most powerful of all, has been almost totally overlooked, and to this I would now call your attention, as it is one which not only can be remedied, but which parliament is called upon by every tie of justice to see remedied without further delay of an instant. The cause to which I allude is the enormous import of Irish corn, and the cure for it is the enactment of a system of poor laws for that miserable country. No one who considers that Yorkshire, Lancashire, Lanarkshire, and many others of the most populous counties in Great Britain, are principally supplied with grain from Ireland can doubt that this import is the leading cause of the over supply, and of the consequent ruinously low price of every kind of grain. This, I take for granted, will scarcely be denied by any of you, and therefore will not waste time in bringing forward arguments to prove it. That the enactment of a system of poor laws will cure this evil may not be so clear to every one, and therefore I proceed to show how it will have that effect. At the present moment the Irish peasantry scarcely ever taste the corn which they raise, and, under present circumstances, it is manifestly impossible that they ever can do so. Their miserable farms, if they deserve the name, are so rackrented that every bushel of corn must be sold to pay their landlord, and there being

no market but England for their produce, of course it all goes there. This proceeds clearly and solely from the want of a poor law; for, if such law existed, the landlords would no longer have it in their power to exact the present exorbitant rents, which are only got by compelling the peasantry to subsist upon the smallest quantity of the cheapest kind of food that can possibly support life. A poor law would take this power out of their hands, and would assign a portion of the land to those who are the instruments of raising it by the sweat of their brows, a right which is due to them by every law human and divine. For whose benefit, then, is the present system maintained? Why, for the sole and exclusive benefit of the grasping absentee landlords of Ireland. They, and they alone, reap benefit from it, while its consequences are the indescribable misery and starvation of their wretched tenantry and the sacrifice of the interests of the agriculturists of Great Britain. The immediate result of the enactment of a poor law would be an immense falling off in the export of corn from Ireland, and the consequent removal of the glut which now oppresses every market in the kingdom; and be it kept in mind that it would be at the same time an act of such plain and evident justice as well as policy, that scarcely any one, either in or out of parliament, can now be found hardy enough to oppose it.

Besides the lessening of the export of produce which would take place, there are other collateral advantages of immense importance which would result from the measure now advocated. In the first place, it would relieve England from the enormous and daily increasing influx of the Irish people, who are now driven by starvation from their own country, thus increasing the poor rates of England, which are necessarily burdened with their support.

Secondly, it would be, beyond all comparison, the most direct and efficacious means of putting an end to the disturbances of Ireland, which no one, who has ever been there, can doubt are mainly caused by misery and starvation. It is true that the ill-used influence of the priests, instigated by the political agitators, is an active cause of these disturbances; but were the misery of the people relieved the priests would not find their minds as readily disposed to follow their directions. When people are in danger of dying of hunger (and thousands of the Irish peasantry are only saved from this fate by the charity of their almost equally destitute neighbours,) strange thoughts will get into their heads.

Thirdly, were the disturbances in Ireland put down, there is not a doubt that some millions might be saved which are now required to maintain an army of 30,000 men in that country. This again would enable government to make an immense reduction in taxation, and probably be the means of the malt tax being taken off. But I find I am making this letter too long for the columns of a newspaper, and must therefore sum up shortly what I have further to say. This is merely to call upon you earnestly to take the view which I have suggested of the cause and cure of your distress into your serious consideration, and, if you are convinced that it is the true one, to lose not a moment in petitioning parliament on the subject, and instructing your friends there to insist upon its being immediately attended to. Depend upon it more good will be effected by such a line of proceeding than by petitioning for the removal of the malt tax, which no government can grant under the present circumstances of the country without risking a national bankruptcy.

I am, respectfully, gentlemen, your sincere well wisher,  
MERCATOR.

*Berwick-on-Tweed, Jan. 14, 1836.*

**PROPOSALS FOR A REDEMPTION OF TITHES.**

By C. HILLYARD, Esq.

The whole amount paid for the redemption of clerical tithes to be paid to commissioners appointed to receive the same, to be invested in such securities as they may be empowered by act of parliament.

Of course, the sums to be paid for the redemption of tithes must depend on the annual value of the tithes. The mode which I have suggested for ascertaining that value, in my proposed commutation of tithes, would, I am induced to believe, be as just and fair both for the tithe owners and tithe payers as any other that can be devised. The important consideration is, what is to be the price of wheat, which is to govern the price of redemption. Most certainly, it ought to be the average price, which, under the fullest and fairest consideration, may be expected for five or seven years to come. Some may think it would be fair to take it at the average price for the five or seven years past. I do not think this would be quite fair for the landowner; for the situation of this country is now very different from what it was seven years ago. Ireland sends double—or perhaps treble—the quantity of wheat to this country that it formerly did. Immense quantities of fen land, from being effectually drained, now produce most abundant crops of wheat, while they formerly produced only uncertain crops of oats. Much down and common land is now inclosed, and produces wheat. Add to these circumstances, that the system of agriculture is improved; that the land (excepting the very poor soils, the produce of which will not repay the expenses of cultivation), now produces more grain than it formerly did. Under all these considerations, it appears to me, to be quite out of the question to expect, for some years to come, anything approaching to high prices for corn. The present price of wheat would certainly be too low to govern the price for redemption, for land cannot be bought at such corresponding low price of produce; besides which, the present very low price of wheat is, in a great degree, caused by two successive abundant crops; and, when that superabundance shall have ceased, the price must rise. With great diffidence I give my opinion as to what may reasonably be expected to be the average price of wheat for the next five or seven years; but my humble opinion is, that 50s per quarter, little more or less, may reasonably be expected to be the average price.

In my computations for the farm of 200 acres—half arable and half pasture—mentioned in my proposals for a commutation of tithes, I computed the annual value of tithes, with wheat at 7s per bushel, to be 54l 9s 8d; with wheat at 6s 3d per bushel, it would be 48l 12s 9d. The sum to be paid for redemption, at twenty-five year's purchase, would be 1,215l 18s 9d.

Supposing a parish, containing 2,000 acres of land, the whole belonging to one individual, was estimated to be worth (tithe free), to rent the value of four bushels of wheat per acre, at 6s 3d per bushel, which would be 25s; and supposing that 1,500 were arable, and 500 acres pasture, the annual claim for tithes on such land would be 44l 9s; that would be 4s 5½d. per acre. The amount for purchasing the redemption would be 11,111l 5s (5l 11s 1½d per acre), which amount, if invested in securities to bring in four per cent., would produce for the incumbent of the living an income of 444l 9s per annum—say 400l. The landowner's nominal income from such a farm would be 2,055l 11s; but deducting the common average out-goings, for repairs of buildings &c., it cannot be estimated at more than about 1,900l per annum; so

that the living would be between one-fourth and one-fifth of the net rental of the parish. The incumbent of such a living would surely have no reason to complain of such an arrangement for the redemption of the tithes. I am aware that some individual land-owners and occupiers of land will probably object to persons inspecting their land for the purpose of estimating the fair rent for it; but such objections ought to be no obstacle to prevent the accomplishment of so great a national good as the Commutation, or Redemption of Tithes. The value of the tithes of all descriptions of land ought to be estimated by the value of the produce which can be raised from it, by common husbandry; that value ought also to govern the estimation of rent; on which basis they should form their estimate as to the equivalent to be given for commutation or redemption. They should not be influenced in their valuation by any existing rents. If an individual chooses to let his land at less rent than it is worth, that is no reason why the tithe claimant should have less than the fair value of the tithes. Or, should an occupier of Land, on account of convenience of occupation, or any other cause, give a higher rent than the land is actually worth, that is no reason that he, or his landlord, should pay more than the fair value of the tithes. If tithe payers and receivers choose to go on under amicable agreements, they should not be compelled by the act to break up such agreements; but tithes should not be permitted to be taken in kind after the time specified in the act.

The many great public benefits that must arise from a fair Commutation, or Redemption, of Tithes, are so well known, that it is quite unnecessary to dilate on them.

I have made out four different accounts of the quantities and value of the different kinds of produce to be obtained from farms of 200 acres each, of different soils and value; also, all items of expenses of cultivation; but, as such lengthened accounts would be uninteresting to many to whom I intend sending this, I will only give a summary of my calculations.

No. 1.—Statement of the effect of an abatement of two-thirds of the rent of a very poor clay land farm of 200 acres—150 arable and 50 pasture—(if tithe free), at 14s per acre, with the average prices of corn reduced as follows—wheat, from 56s per quarter to 40s; barley, from 30s to 22s; beans, from 32s to 26s; oats, from 20s to 15s; with meat reduced to the corresponding low price of corn.

Value of produce at the higher prices . . . . .	£703 6	Value at the lower price . . . . .	£515 3
Expences, 380l 6s; rates and interests of capital, 70l; rent, 140l.	590 6	Expenses, 308l. 10s; rates, &c. 57l; rent, 46l. 13s . . . . .	412 3

Occupier's income, with full rent . . . . .	£113 0	Income with one-third rent . . .	£103 0
Rent should be, with wheat at 50s per quarter . .	£125	Tithes—according to my proposals—2s 2½d per acre . . . . .	£22 4s.

No. 2.—200 acres of clay land, at 25s per acre—180 arable and 20 pasture—with an abatement, for low prices, of two-thirds of the rent.

Value of the produce, with the higher prices . . . . .	£900	Ditto with the lower . . . . .	£659 10
Expenses, 470l; rent, 250l . . . . .	720	Ditto—expenses, 388l. 10s; rent, 84l . . . . .	472 10
Occupier's income, with full rent . . .	£180	Ditto—with only one-third of rent	£187 0

With wheat at 50s per quarter, the rent should be 220l per annum.

If titheable, should be 4s 2½d per acre—41l. 16s per annum.

No. 3.—200 acres of good turnip land—180 arable and 20 pasture—at 35s per acre: rent reduced one half, in consequence of low prices. Six-course system.

Value of produce with the higher price	£1102	Ditto with the lower	£810
Expenses, 430l; rates and interest, 95l; rent, 350l	875	Expenses and rates, 439; rent, 175l	614
Occupier's income	£227	Occupier's income	£196

Fair rent, with wheat at 50s per qr, would be £300  
If titheable, 6s per acre ..... £60

No. 4.—The same 200 acres, at 30s per acre, with wheat at 50s per quarter, and other grain in proportion. Four-course system.

Value of the produce	£1053 9	If titheable, Commutation 60l per ann.; one-fifth of the rent.
Expenses, 497l 9s; rent, 300l	797 9	Redemption should—if 25 years' purchase be thought fair—be 1,500l.
Occupier's income	£256 0	

I am quite aware that no statements of produce, and expenses of farming, can be made applicable to all parts of the kingdom. The above have been submitted to some intelligent farmers of this county, who have pronounced them to be, in their judgement, quite fair.

In making out these statements of all the in-comings and out-goings of these different farms, I have had these objects in view: to show to those who know little of rural affairs, that it is not in the power of landlords, as many persons suppose it is, to compensate tenants for very low prices of corn, by abatements of rents:—to show to the advocates for a free trade in corn, that it is quite impossible for the occupiers of land to obtain a decent maintenance for themselves and families, and to maintain the poor of their parish, with such low prices of corn as there must be with an unrestricted importation of foreign corn:—to show the proportion of the value of the produce of the land for the commutation of tithes, and the proportion of the value of the land which I propose to be given for the redemption of tithes. Lastly, I wish strongly to impress on the minds of young farmers about to enter on farming on their own account, that they must not expect anything approaching to the prosperous farming times of 25 years ago; that a decent maintenance is the utmost that can reasonably be expected, and that only to be obtained by industry, frugality, and a constant attention to their business.

Amongst the many national advantages to be obtained by a commutation, or redemption of tithes, there would be this. There is a great deal of inferior old pasture land, with very bad herbage, that would, were it not for the extra demand made for tithes, repay the expenses of ploughing up and taking two crops off it, well cleaning it, liming it, draining it if needed, and then sowing—say three parts of it—down again with grasses suited to the soil; thus finding additional employment for the poor of the parish, and thus enabling the occupiers to keep as much stock, or more, on three parts of their farms, as they had formerly done on the whole.

C. HILLYARD,

President of the Northamptonshire Farming and Grazing Society.

Thorpelands, near Northampton, May 13, 1835.

P. S.—Tithe valuers perhaps, ought to have oaths administered to them that they have not or will not accept any fee. Clergyman ought to be accommodated with a few acres of land to keep a cow, &c.

CENTRAL AGRICULTURAL SOCIETY.

At the meetings of the Society which took place on Monday and Tuesday, the 11th and 12th instant, the following address to the King was read and unanimously adopted, and it was resolved that it should be signed by Earl Stanhope, as Chairman. On the part of the meeting, his lordship was requested to present the same in person to his Majesty:—

TO THE KING'S MOST EXCELLENT MAJESTY.

SIRE—The Central Agricultural Society of Great Britain and Ireland, recently formed in the metropolis of the empire, for the protection and encouragement of agriculture, venture to approach your Majesty with profound sentiments of loyalty to your Royal Person, of unswerving fidelity to the Throne on which it has pleased Divine Providence to place your Majesty, and of devoted attachment to the constitution, of which the landed interest has ever been prominent as the most strenuous supporters in times of popular commotion or of national distress.

It is with feelings, Sire, of the deepest regret and most serious apprehension, that we announce to your Majesty the alarming and almost intolerable depression under which the agricultural interest of this great kingdom is now suffering,—alter twenty years of peace, an enforcement of rigid economy, and a repeal of taxes to the amount of many millions. Thousands of industrious families have been hurled, by no fault of their own, from comparative affluence into utter destitution; capital has been rapidly absorbed without a prospect of remuneration, and many of our ancient yeomanry have been compelled to seek, in distant climes, that support which their intelligence, their industry, and their good conduct ought to have procured for them in their native land.

We presume not, Sire, to indicate the causes which have produced such melancholy and fearful results; we acknowledge, with grateful humility, that the Giver of all Good has been bounteous to us far beyond our deserts, in granting to us abundant harvests, peace abroad, and tranquility at home; and we are fully persuaded that there has been no want of prudence, industry, or skill on the part of the agriculturists, to merit the deep distress with which they have been so long afflicted.

But, Sire, we should be deficient in duty to our country and to ourselves, we should depart from our much valued national character, were we to sit down quiescent under the effects of new but false principles of legislation, and make no efforts to remove either present difficulties, or to avert impending dangers, particularly when we feel assured, that the Legislature has the power of granting us relief. We seek no exclusive advantages over our fellow subjects,—we desire to see agriculture, manufactures, and commerce go hand in hand, for on the prosperity of all three depends, the welfare of our social state, and on their firm union is based the peace and the integrity of the kingdom.

Neither, Sire, have we any political party, or selfish objects in view,—they are alien to our nature,—they are hostile to our interests,—and diametrically opposed to the well being of the community whose relief we seek; and it would ill-become any class of Your Majesty's subjects to approach the seat of truth, of honour, and of impartiality, for the sake of obtaining any objects which are not conducive to the weal and happiness of the nation.

It is therefore, Sire, with renewed protestations of loyalty, that we avail ourselves of one of the many advantages of our free and hallowed constitution, which permits us to approach the throne in respectful supplication as Petitioners for relief of the distress now



oppressing Your Majesty's faithful subjects. We are fully aware of the restraints which the wisdom of our ancestors devised for the limitation of the prerogative of the Crown, and while reverencing such wisdom, we are equally disposed to uphold and maintain the power so judiciously vested in the Sovereign, for instructing his Ministers to inquire into justly alleged grievances.

We therefore, Sir, most humbly pray, that Your Majesty will no longer suffer the most important interest of the state to be neglected, as it has hitherto been, but that Your Majesty will graciously be pleased to recommend to Parliament to take into its immediate deliberation the causes of the grievous distress which now overwhelms the agricultural interest, with a view to provide speedy and effectual redress.

And, as in duty bound, Your Majesty's Petitioners will ever pray.

By order of the Society,  
(Signed) STANHOPE,  
Chairman.

The following Petition to the House of Commons, as prepared by the Sub-committee, was also read and unanimously adopted; and it was resolved that Mr. Bennet should be requested to present it to the House of Commons, as early as possible after the assembling of Parliament; and that Mr. Wodehouse, Mr. Cayley, Sir Charles Broke Vere, Sir E. W. Wilmot, Mr. Ormsby Gore, and Mr. Sheldon, &c. be requested to support the same.

To the Honourable the COMMONS\* of the United Kingdom of Great Britain and Ireland, in Parliament assembled:

The humble Petition of the CENTRAL AGRICULTURAL SOCIETY OF GREAT BRITAIN AND IRELAND;

Sheweth,—

That your Petitioners view, with extreme regret and anxiety, the severe and almost intolerable distress which now afflicts all the Agricultural classes, and which appears to have arisen mainly from legislative measures, and not from causes which are beyond the control of Parliament.

That the distress of those classes will, by its continuance, disable them from bearing their present burthens, and thus render impossible the collection of the revenue, and ultimately lead to national bankruptcy.

That discontent, which is the natural and necessary consequence of severe distress, endangers and threatens to destroy all our existing institutions, and to plunge the country into anarchy and revolution.

That your Petitioners are not influenced by any party views, or by any selfish considerations, and claim only that redress which is justly due, which is required by the interests of all other classes, and which is essentially necessary to the prosperity and safety of the whole community.

That the interests of the retail dealers, and of a large and important class of manufacturers throughout the country, are inseparably connected with those of the agricultural classes, of whom the consumption and expenditure are very materially reduced by a continuance of the present distress.

That the present distress very much affects also the interests of the fundholders, as it will ultimately render precarious, and, perhaps, impossible, the payment of the dividends.

That the labouring classes, for whose welfare it is the bounden duty of Parliament to provide, suffer the most grievous distress when deprived of work, through the inability of the owners and occupiers of land to employ as many labourers as are requisite for its due cultivation, and that the continuance of their employment is rendered very precarious by the rapid reduction of agricultural capital.

That the agricultural classes have endured their severe and unmerited sufferings, in the hope, which has

been hitherto disappointed, and which past experience almost forbids them to form, that Parliament would redress their grievances.

That the patience which they have hitherto shown has its limits, which it cannot be expected to exceed, and your Petitioners contemplate with awe, and with alarm, the situation in which this country would be placed, if a convulsion should ensue, and all the bonds which unite the community should be dissolved.

That your Petitioners are entitled to expect that the sufferings of the agricultural classes will receive the immediate and impartial consideration of Parliament, with reference to all the causes from which their distress has arisen; and your Petitioners are fully of opinion, that nothing can remove the present overwhelming distress, but the adoption of some measure which will either raise the price of produce to the level of the burthens imposed, or bring down their burthens to the level of the present prices.

That the distress and discontent of the country are such that relief cannot be delayed without the most imminent danger.

That your Petitioners consider the redress of grievances to be one of the first and most important duties of Parliament, and most earnestly pray that Parliament will forthwith adopt measures to grant speedy and effectual redress to the agricultural classes of the community, and thus to restore the country to its former prosperity.

And your Petitioners, as in duty bound, will ever pray.

By order of the Society,  
STANHOPE,  
Chairman.

### COMPARATIVE TABLE OF SPEED.

From *The Physical and Chemical Journal of Science, and the Arts of Husbandry in France* we make the following extract, which will be found no less curious than useful, and cannot fail to interest our readers:—

	Feet per second.
The ordinary rate of a man walking . . . . .	4
— Of a good horse in harness . . . . .	12
(Or 2,000 toises (yards) in 8 minutes.)	
— Of a reindeer in a sledge, on the ice . . . . .	26
— Of an English racehorse . . . . .	43
— Of a hare . . . . .	88
— Of a man casting a stone with all his force . . . . .	60*
— Of a good sailing ship . . . . .	19
— Of the wind . . . . .	82
— Of sound . . . . .	1,038
— Of a cannon-shot (24-pounder) . . . . .	1,300
— Of the air which returns into space so divided . . . . .	1,300

EXTRAORDINARY PIG.— For some time past considerable curiosity has been excited by a pig, the property of Robert Edger, Esq. of Shotton Cottage, in the county of Durham, which, without having been fed in any but the ordinary manner, had attained such a growth as to become quite a matter of curiosity to the surrounding country. The animal was of the prick-eared breed, and was killed last week; and although only 13 months old, had attained the surprising weight of 41 stones 3lbs. Its length from the insertion of the ears to the end of the tail was 6 feet 3 inches, and its girth 85 inches; and although of such unwieldy dimensions, its symmetrical proportions were admired by numerous acknowledged judges.

\* We believe this calculation to be incorrect. A stone cast with the strength of a man's arm will outstrip a hare.

\* A similar Petition will be presented to the Lords.

## ON THE STATE AND PROSPECTS OF AGRICULTURE.

TO THE EDITOR OF THE GLOBE.

Gloucestershire, Jan. 9, 1836.

SIR,—You have, on several occasions, inserted my observations upon subjects of great importance: the state of agriculture at the present time, and its future prospects, now demand attention. Previous to the meeting of parliament, the debates of which generally engross your columns, I now forward to you the following reflections, which I hope may be found to contain words of truth and soberness, for I always hold the opinion that those who overstate a case are certainly its enemies, perhaps its worst, unless their audience be void of discernment.

Much has been said upon agricultural distress, and many the remedies proposed: your columns would be unfairly trespassed on by any complete detail of the merits and fallacies of the various prescriptions; but if you will permit me the privilege of occupying at this time a moderate space, I will endeavour to drop a few sparks of information upon subjects which but need them to ignite and diffuse a beneficial and cheering warmth over our industrious and most important agricultural population.

First, then—Let the legislature, as I have ever held it to be its bounden duty to do, carry out into full effect what is called the curse of the Almighty, and secure to our people, who will generally as a consequence be loyal, the opportunity of fulfilling the beneficent decree of our God—"In the sweat of thy face shalt thou eat bread." Inattention to this most important and economical principle by the government of our land—I refer to no particular dates—has, without the formality of expressing it, inflicted upon a large portion of our people one of the worst sources of evil, and what may be denominated the curse of man—idleness. We have also combined, through the same inattention, which I consider criminal, two descriptions of idleness: one arising from foolish giving of money, the other from the inhuman withholding of the means of living by honest industry. I support my first position by the county of Sussex, the second by the kingdom of Ireland, the land blessed by Heaven with matchless fertility! cursed by man with unexampled misery!! Is there no such word as *responsibility*?

On these momentous questions, affecting the daily happiness of millions, our favoured land has by a noble effort opened one eye, and seen the *smaller* evil. Let England now resound from shore to shore with a cry to which every class and every party may respond, "Secure employment to Ireland, bodily as well as mental, and peace will follow in its train."

I will not enter on the question whether man has an inherent and abstract right to employment by the nation, but I will state what is of far more importance—he has unquestionably a *practical* right, with the power to enforce it, which he will exercise: that power, however, is the commission of crimes of such extent and degree that civilised society stands aghast at the bare contemplation of them. Viewed in all its endurance, I think the forbearance of Ireland has been wonderful: with English ideas it is difficult to realise the distresses which the Irish Commission on the state of the poor proves.

As a British farmer, then, I ask, first, for the principle of the 43d of Elizabeth for Ireland. Let not her untaxed, and, by rebellion, her untithed produce also, come into competition with our hard-earned crops. I seek not tithes for Ireland, or exclusion of her produce: in name united, in comfort, in employment, and in consequent plenty and peace, let

her also be compactly joined; but her non-payment of tithes is an additional power of injuring the British farmer. Can this not be seen, with its cruel aggravation?

Commutation of tithe for England stands next upon the list. Lord Althorp's principle of commuting is a most beneficial one; if tithes exist, a commutation proportionate to rent for land is the least injurious principle to cultivation; and cultivation is the mother of employment, with the various blessings it entails.

Our own blessed and bounteous harvests have lowered prices of grain almost without precedent. Wisdom would store part of this abundance for time of need, but confidence on this subject is destroyed. It is not clear that the present corn laws are relied on; they are, however, suitable to the fears of the people, and work well, if not unexceptionable in principle.

With currency what have farmers, as a class, to do? I have the highest respect for Lord Western. Before the passing of Sir Robert Peel's bill I was aware of its power over price, I am still aware of it. I believe the previous departure from the double standard to be an aggravation of the bill of 1819; but these acts have been long done. A metallic standard is, however, good, and change again is evil anew; remedies must on this head, be found in *economising* currency; a good system of banking, and *confidence* between man and man, based upon sobriety, will accomplish this. With good and sound cement, and careful building, our narrowed base, with the irrepressible energy of Englishmen, will accomplish much. The course pursued has enabled us to reduce some of the interest of the debt—it has kept our credit at a premium, even to a Quixotic standard—it has kept us probably at peace, the first of blessings—but it has unquestionably deranged most sadly many of the older contracts between man and man, which equity, could it separate them, ought to repair, and which demand private consideration.

Still this is a question which pervades every class; which is not confined to one. I cannot shut my eyes to the activity of our manufactures, or to the price of wool; the agricultural interest have no strength to spare to urge the rights of the productive classes at large—let them, therefore, concentrate their strength, not to demand inquiry, *which we have very recently had*, but, in the first place—poor rates to secure employment for Ireland.

Your obedient servant,  
GEORGE WEBB HALL.

The Duchess of Kent has sent the following answer to an application made for patronizing the Isle of Thanet Agricultural Association:—"Ramsgate, Jan. 7, 1836.—Sir, I have received and laid before the Duchess of Kent your note of this date, relative to the formation of an Agricultural Association in the Isle of Thanet, for the encouragement of servants and labourers. Her Royal Highness very readily accedes to the desire expressed that she should be the patroness of it, as such requests are always most congenial to her feelings. Her Royal Highness is happy to close her visit to the island by being associated with the gentlemen and farmers in establishing so useful a society, and one so calculated to carry information, zeal, and reward, among those valuable members of the community, the farm-servants and labourers. Her Royal Highness will give every year a prize of 5*l.* to that labourer who shall be considered to have brought up most creditably and usefully the largest family, without receiving parochial relief. Her Royal Highness has directed Messrs. Austen and Co. to pay annually to the treasurer, the sum I have just named.—JOHN CONROY.—Directed to "Thomas Mayhew, Esq., Nether-court."

## ON THE MANAGEMENT OF NEW LEYS.

(To the Editor of the Irish Farmer's and Gardener's Magazine.)

SIR—As I have remarked through many parts of the country much mismanagement in the laying down and treatment of new leys, I beg leave to offer, through your pages, a few observations on this branch of husbandry, so important towards insuring a profitable rotation of crops, in every respect judiciously managed; on the contrary most detrimental to the interests of Agriculture, if conducted in a slovenly manner.

New leys may be considered under two heads,—viz.—permanent, and temporary: the former to remain as long as they can be continued in a profitable turf; the other, as a temporary relief to the land after an exhausting corn crop, and to be ploughed up as soon as this object is effected. This I am satisfied every experienced agriculturist is acquainted with; but it seems there are differences of opinion as to the best mode of laying down land with seeds—some asserting they should be sown with, and others without a corn crop. This no doubt, is a matter that would be highly satisfactory to ascertain, and having made many experiments on both modes, I shall submit them to your readers in order further to elucidate this subject.

Many years ago I observed that grass seed succeeded best where the corn crop was light, and still better in places where there was no corn sown at the same time, and this induced me the following year, to lay down an acre on land prepared for barley, without corn, and the remainder of the same field in the usual manner. The hayseed and barley were sown in the middle of April, and on the acre of seeds there was excellent feeding for sheep in July, which continued in profit till the end of October. On the other part of the field there was a good crop of barley, and the seeds hit tolerably well, but the bite for sheep during the autumn was of little value. On the following spring I observed that the surface of the former was covered as closely as if it was a two year old ley, but where the barley had grown there were many misses and the plants weak, and when mown the following June, did not produce more than one half of hay in proportion to the single acre as stated. This naturally induced me to make a calculation—how such a system would be beneficial generally. I therefore practised it for several years afterwards on a small scale, and found the result equally favourable. No doubt there was a loss sustained by the non-production of corn, but I consider this was fully repaid by the first year's feeding, and the extra hay produced the following year, allowing for the expenses saved of seed corn, sowing, reaping, &c. and sending the grain to market. But the great advantage of this system was proved in the succeeding years, for the grass was much more abundant, and the crops produced when the land was broken up, were much more profitable where this system was practised, than on land where corn and grass seeds had been sown at the same time. Another corroborative proof of what I have advanced occurred the other day. On observing a field of grass land studded with hay cocks, while the adjoining ones had the appearance only of ordinary produce, I asked the farmer who owned the property what caused the great quantity of produce on that particular field. His reply was—that the field had been *worn out*, and “that he was afraid to put corn in, as he was sure he would have a bad crop,” and he added,

“that he laid it down two years ago with grass seeds only.” I am satisfied there were five tons an acre of good hay on the field in question!

With respect to this system being followed with advantage when permanent leys are necessary I have no doubt; but adopt it in temporary leys it may not be altogether so judicious, except in cases where the land is too poor to expect a remunerating corn crop, when it may be beneficially sown either with red or white clover. It has however been asserted, that the corn is a protection to young seeds; but this I have proved to be otherwise; and I recollect well in the dry spring of 1833, I laid down 20 acres of land in Worcestershire with spring wheat, and seeds of different sorts, and I uniformly observed, that in all places where the corn failed, or was thin, both the clover and grass seeds grew freely; but where the wheat was luxuriant, a great proportion of the grasses failed. This evidently shows that the power of the sun and a free circulation of air promote vegetation even in the most tender plants. The free growth of the grass seeds when sown without as a crop, I attribute to the open and pulverized state of the soil during its early vegetation: on the contrary, when overpowered by a corn crop it lies nearly inactive in the ground, during the growth and maturing of the corn crop, at the expiration of which time the land becomes so consolidated, and sometimes foul, that the tender plant of the grasses can scarcely find nutriment: besides, the soil must be materially exhausted by producing the corn crop. It often happens also, that seeds fail entirely from being smothered by a rank crop of corn, or that this latter crop suffers from the luxuriance of the red clover coming up through it; therefore one or the other is often partly sacrificed, especially in a wet harvest. These are, therefore, matters worthy of consideration, which I hope some other of your correspondents will take the trouble still further to elucidate.

The next matter worthy of attention is—what is the most advantageous way of converting new leys to profit? Should they be mown or fed the first year—and what stock is most appropriate for this purpose? Reason and Judgment, I think, will at once decide on this question—feed with sheep the first year in order to thicken the grass, sweeten the herbage, and improve the quality of the soil, for this is the period to effect this improvement, and not when the land becomes consolidated after being mown, and carting off all the substance it is capable of producing. It may be argued, however, that by mowing the first crop a quantity of hay seed is distributed on the land, which would supply the deficiencies from the failure of grass seeds at the first sowing. To this I reply, that if such failure should occur, it would be a far better mode to harrow the surface in spring—sow some fresh seeds, and then roll the surface; for it cannot be expected that seeds falling on a hard soil in the heat of summer, can have a fair chance to vegetate, except in a most favourable season. I am, Sir, however, well aware how reluctant the generality of farmers are to forego a crop of corn, and how difficult it is to persuade them that a green crop will pay them much better in many cases, taking all matters into consideration.

Let us then see how this matter stands. An acre of new ley (a full crop,) would feed 20 sheep in six months—that is, it should turn off two lots of ten each. Supposing those to average 8s a head profit, which is a moderate calculation, the land will pay 8l an acre, and be so much improved that the following year it will cut one-third more hay than had it been mown the first season; whereas, if cut the first year, there would follow but a light crop of after-

grass, and the second year a much inferior meadow, and the land would be much deteriorated by such mismanagement. These observations are equally applicable to red clover leys, which should not be cut unless the land on which they are produced is in good heart; and in no case is it advisable to mow the second crop unless for seed, for it seldom turns out good food for cattle, and the land is much impoverished by the practice.

With respect to cutting the first crop of red clover for hay or soiling, the best farmers are satisfied that the land is as much improved by producing a smothering crop as it would be by being fed with sheep, and this has been proved on a variety of soils. The second growth, however, has seldom this fertilizing property, as it neither throws off its leaves so abundantly, nor is the heat so late in the season sufficient to cause their decomposition or fermentation on the surface, as is the case in the first crop. It however requires good management to feed off red clover by sheep, for if not well kept down when in a succulent state, it will start into seed—the stems grow hard, and little beneficial to any sort of stock. It is therefore judicious to turn in a heavy stock of sheep at the commencement, and should those not be sufficient, to check too great a luxuriance of growth, a few heifers or horses will be necessary to effect this. The field may be divided by hurdles into three or four divisions, and the sheep and cattle changed occasionally in such a manner as will economise the keep, and more effectually improve the land.

Either red or white clover leys should be ploughed up the second year after sowing for wheat, or if not in sufficient condition for this crop, oats may be substituted the following March. It is not advisable to allow it to remain a third year without ploughing, as their roots, which are the chief part of the manure obtained by the introduction of the crop, become too dry for this purpose, nor will they usually produce more than half the quantity of green food after the second year. I have found the American cow grass to do well for a few years, but as a preparation for wheat it does not appear to possess any advantages over the biennial red clover.

I never have experienced any advantage in sowing white (Dutch) clover in preference to red for a temporary ley, except being a better feeding grass, or when the land became tired of the latter sort, in consequence of sowing it oftener on the same land than every 7 or 8 years. The crop however should be managed in the same manner as red clover as a ley for wheat, but it is more profitable to feed than to cut the crop, as it is not productive for hay, or so valuable as red clover. Both those grasses afford an early bite, and may be pastured in April if not intended for meadow, provided the land be dry, but the flock should not be permitted to remain longer than after the top grass being eaten off, or no injury to the crop is likely to follow.

#### AGRICOLA.

ANIMAL WEATHER-GLASS.—In Germany there are now to be found, in many country houses, an amusing application of Zoological knowledge for the purpose of prognosticating the weather. Two frogs are kept in a glass jar about eighteen inches in height, and six inches in diameter, with the depth of three or four inches of water at the bottom, and a small ladder reaching to the top of the jar. On the approach of dry weather the frogs mount the ladder; but when wet weather is expected they descend into the water. These animals are of a bright green.

## BET-ROOT SUGAR, AND GREAT INCREASE OF ITS MANUFACTURE IN FRANCE.

“The manufactories of beetroot sugar, almost totally neglected for several years after the peace, were set to work gradually. In 1820 there were no more than fifty-seven of them throughout France. At that period, however, the process of extraction from beetroot had not been brought to such perfection as to enable the sugar produced by it to compete with the colonial article; but in the course of time that process has undergone so great an improvement, that within the last five years the sugar made out of beetroot has become in every respect equal to that of colonial origin, so as not to be at all distinguishable from colonial sugar. The cultivation of the beetroot has, therefore, almost suddenly acquired a very considerable extent in France, and the manufacturing establishments have so rapidly increased, that they now number no less than 407. These yielded, in 1834, 30,000,000 kilogrammes of loaf sugar, a quantity sufficient for the wants of one-half of the population of the country. It is expected that their produce for 1835 will amount to 40,000,000 kilogrammes. The price of the article in the retail shops is 1 fr. (10d) the pound, for which reason, as you may imagine, it is much more generally in request than colonial sugar, although the competition has necessarily brought down the price of the latter very considerably. The manufacturer of beetroot sugar however, just now derives the larger portion of his profit from exportation. He has found the laws made for the benefit of the refiner of colonial sugar just as applicable to his own, so that without having like the colonial importer, to pay the enormous duty of 50 francs for every 100 kilogrammes of the raw material, or any duty at all besides the land tax in the cultivation of beetroot, which is comparatively trifling, he is entitled to the drawback which the law intended to benefit the refiner of the colonial produce only. People in France will care little whether the sugar they use is extracted from a cane or a beetroot, provided it answers their purpose equally, and they find the one description as cheap as the other. It no longer is a question to enable the country to supply itself with the article, in case it be again prevented from drawing its supplies from a distant colony. The object now is of a much more permanent importance to the various interests of the country. The owner of land not fit for the cultivation of corn or any of the other more essential necessities of life, devotes that land to the cultivation of beetroot, which prospers on an indifferent soil as well as, if not better, than in the best. The capitalist may lay out his funds in the working of a sugar manufactory, and the merchant may speculate in the exportation of beetroot sugar as he did in that of colonial origin. The planter alone may find reason to complain, but, at all events, he will not be ruined. And after all, why should the mother country remain dependent entirely upon him? Has he not gathered riches for centuries past at her expense? And does he not do his utmost to bully Europe into a perpetuation of that revolting system of slavery which has too long disgraced his meridian of Christendom, by threatening her repeatedly with an entire cessation of colonial supplies, should the detestable system which he looks upon as the source of his own prosperity, be put an end to? I dare say that with you in England it is not likely that the sugar trade will have to undergo any change. You cannot afford space for the cultivation of beetroot, and you would much rather be dependent on

your colonies, so long as you have any of your own, for your supplies of their native produce, than on the continent of Europe. But it is easy to foresee that elsewhere the beetroot system will speedily become exceedingly prevalent. Every country of the continent that can afford to do what France does in this respect (and I know of none that cannot) will set about imitating her example, so that in the space of a few years I should not wonder if there be as great a revolution in the sugar system of the world as was operated in navigation by the power of steam."

[The above is from a Correspondent of *The Times*, at Paris. How it is that we, in England, have hitherto been so careless of the cultivation of this valuable esculent, we know not, save and except that at the time our ingenious neighbours were first promulgating the success of their experiments in sugar extraction from the root, our arable lands could not well have been more profitably devoted than they then were to the production of corn. Added to this, the experiments themselves, although successful in some respects at first, yet in others, failed of that perfect result, at which, after twenty years of assiduous attention, they have now arrived. Such being the case, and the evidence of the practicability, as well as certain profit of the manufacturer being completely established, we are curious to know, now that wheat is less than 5s. a bushel, and that (saving the assertion of *The Times'* Correspondent) we have vast tracts of land, still in a state of uncultivation, why it is that no ingenious chemist of this country, or practical manufacturer from France, has not set our Farmers more extensively to the production of beetroot, than its present almost exclusive applicability to cattle fodder had warranted. Prompt, as we have heretofore been, almost to a fault, in copying the elegancies, nay the frivolities, of French civilization—it appears strange, indeed, that the beetroot, which among our neighbours now finds its way in its chemical derivative, to the table of the peer as well as the peasant—it appears strange, we say, that this vegetable should not be more cultivated among a "nation of shopkeepers," where the solid advantages of utility have been almost invariably first consulted, in preference to the refinements of taste. The great extent of our arable fields, at present yielding little or no profit to the occupier—the spirited enterprise for rail-roads, which, when they get *in train*, will be quickly throwing out of cultivation the lands which now supply provender for horses—the varied uses to which the root may be assigned upon the failure of the new one—all conspire to render the cultivation of beet, upon a grand scale, a matter of the first attention among our agriculturists. They know full well that, applied even as they now apply it, it is a most valuable article of consumption; but when they come to read the above, and ascertain the extraordinary capabilities it possesses, under the good guidance of science, in a country, too, not proverbial, certainly, for its farming developments, they must be indeed of a class with the rustic, who stood still on the bank till the river might flow by—if they do not soon vary with beet their growth of corn, and invite, from one of the 400 establishments now in France, some skilful artisans, to set a new manufactory of sugar speedily on foot in this country. We should imagine, at the present juncture, nothing more acceptable could accrue to our rent-ridden tenants, in the way of raising their drooping spirits, than a wholesale call for beet—an article of such easy culture—of such sure returns—and of such indifferent favouritism to soil.—*Taunton Courier*.]

## TO THE LANDOWNERS OF GREAT BRITAIN.

(From the *Morning Herald*.)

Permit me, without preface or apology, to state to you that which all your agricultural meetings appear to require—the specific cause of the depressed price of grain, and its remedy.

That the resumption of cash payments—or, in other words, the enactment to destroy the moral faith of man with man, called Peel's Bill—has been the main cause of reducing the value of everything below its merits, except fixed money incomes, is now matter of undisputed fact.

Inexperienced in the practice and concerns of life, and encouraged by the authority of a statesman professing himself a "Stern Path of Duty Man," but certainly never a vigorous one, metallic currency was based upon the ruins of many an excellent and virtuous banking establishment, and the circulating medium of the country was annihilated, because the vicious operation of a few of them had alarmed the timidity of my Lord Liverpool. The woful experience of thousands attests the truth of this. I do not take upon me to say whatever I may think of a return to that state of currency from which we have departed, but I have no diffidence in asserting that that Bill first reduced wheat to its present price—and the Government of the country, or its agent, the Bank of England, keeps it there. You cannot be a stranger to the course of this establishment, or if you are, I can vouch to you as a truth, it has been continually at work in its vocation to keep down the price of corn. The merchants in that trade have had their credit wantonly impeached by this compound of power and folly, who in the plenitude thereof, avowed that they stigmatized the trade by rejecting the bills of exchange of two of the most notoriously opulent of its merchants, that the trade in corn might be repressed. Their efforts were eminently successful; they broke the spirit and wounded the independence of its merchants, and the commodity, under the persecution, was given up to panic and to sacrifice. The sapient body, to stay the consequences of their acts, promulgated their willingness to advance loans of money to farmers on their corn-rieks, which when applied for, were generally, if not totally, refused. Of myself, I can state to you that I was solicited by one of the branch agents of this establishment to apply to them for a loan of money on a stock of corn in granary, and with personal security in addition; I did so, and the answer to my application for 20,000*l.*, given by the then Governor, "Samuel Drewe," in 1829, was, "Were he to lend money to a corn merchant, the people might think hardly of them for enhancing the price of corn." This was the avowed object of their offer, and they only shrank from the responsibility when the means of attaining that object were pointed out to them, and when they were put to the test. They professed to wish it done, but they dared not do it. The trade thus discredited the bills of its first merchants; rejected by the Bank of England, the example was followed by every petty Bank in every town, and a general prohibition against dealing in corn was established. Deprived of the aid of middle men, to whom the very health of the price of corn belongs, the whole of the agricultural produce of the kingdom has been, according to the necessities of the producers, sold to the consumers at whatever price it would bring—depression has increased depression, until the coarse meal of oats has been sold at a higher price per stone than the finest wheaten flour.

Corn has ceased to be an article of speculation, and it will, in all probability, continue to be so, until defective crops, or a bad harvest, compel it to be otherwise. Nor will it affect this view of the subject, to know that barley and oats have, under the same circumstances, borne high relative prices. They will not do so this year; neither are they grain so subject to be speculated in as wheat, both of them lose in quantity; and barley (when kept) ceases to be of use for malting, its most valuable purpose.

These remarks show that we are now, exclusive of

that which may be in the possession of the agriculturists, without any stock of wheat in granary.

We have no reserve in case of deficiency, and no recourse but in an importation.

We should always have a large stock of corn, and, if possible, of our own growth.

The present Corn Law induces speculations in foreign in preference to British corn, its graduating duties affording the two-fold temptation of an advance in price, and a reduction of duty.

This law should be abolished, and a fixed duty instituted; and if that were 20s per quarter on wheat, and in proportion for other grain, it would be gladly paid by the foreigner for the privilege afforded him.

Let the Government of the country give such encouragement to the trade in corn as it gives to all other trades. Let it be left to the prudence or interests of its merchants to absorb the cheap abundance, for the less abundant and dearer time, fear not their cupidity, the subject is too comprehensive to admit of monopoly, and certain gain is too desirable to allow it to be retained to the injury of the commonweal. Let Government, in the true principles of free trade, forbear to interfere with the honourable proceedings of the community, and they will not only save themselves, the country, and you, its landholders, from anxiety and loss, but promote the welfare of the most important part of the population, without diminishing the comforts or the resources of the rest.

Dec. 21.

A CORN MERCHANT.

## STATE OF AGRICULTURE.

(From the *Edinburgh Weekly Chronicle*.)

Some writers have puzzled themselves in the endeavour to account for the cheapness of corn, but it is simply owing to abundance, and the abundance to the recent improvements in agriculture here and in Ireland. No species of production can be the object of long continued attention, without ways and means being discovered of increasing the supply, and diminishing the cost of production, and consequently the exchangeable value. And it would have been strange, if, while improvements were daily taking place in every department of arts and manufactures, agriculture alone had remained stationary, the amount of its produce as low, and its price as high.

The truth is, great and gratifying as have been the improvements in manufactures, they do not, perhaps, greatly exceed those which have, during the last ten or fifteen years, been introduced into agricultural operations. It is only about twenty years since the first steam-engine was erected in East Lothian for thrashing grain, an example which for some years was followed by few, but during the last eight or ten years they have rapidly increased, and we know for certain, that there are now upwards of sixty in the county. Judging from present appearances, there will not in five years hence be a farm in the county of the extent of 150 acres and upwards, and destitute of water-power, without its steam-engine.

In East Lothian—we speak chiefly of East Lothian, because better acquainted with its concerns than those of other counties; but agriculture is every where rapidly progressing—tile or furrow draining is but an introduction of yesterday, and already thousands of acres have undergone this admirable improvement. So lately as the summer of 1832, furrow-draining was, we believe for the first time, practised in East Lothian, and in one field only. The field in question had been previously thoroughly cross-drained, lime and manure had been poured into it with a liberal hand, but all without avail. At length drains were put into every other furrow, and immediately two pickles grew where but one would

grow before; the first crop repaid the whole expenses incurred. On the same farm 100 acres, or all that requires it, have since been furrow-drained, partly with stones and partly with tiles. On another farm, with which we happen to be acquainted, 200 acres have been tile drained, partly in every alternate furrow, the two intervening ridges being thrown into one, and partly in every furrow, during the summers 1833, 34, and 35; and on a third, 100 acres have been similarly dealt with, during the two last summers. We have ascertained that there are upwards of three millions of dram tiles at present annually manufactured in the county; and yet the tile-works in existence occasionally find it impossible to supply the demand, and others are about to be erected. Three millions of tiles are sufficient to drain 2,000 acres, putting a drain in every alternate furrow.

It is now about ten years since rape-cake was brought under the notice of agriculturists in this part of the country, and it has been for some years in extensive use. One agriculturist, we know, who manures the whole of his fallows with it, at an annual expense of 600*l*. Some hold that it is useful for one crop only, and affirm that it bears the same relation to common stable dung as a manure, that a dram does to a beefsteak as articles of human subsistence. The agriculturist in question, however, who speaks from experience, thinks differently, and is of opinion that rape-cake has added three or four shillings to the value of land situated at a distance from towns where it is difficult to obtain a sufficient supply of manure. As another proof of the intelligent readiness with which everything likely to prove an improvement is adopted, we may instance Chevalier barley, which, though only introduced three or four years ago, was last year almost the only variety cultivated in East Lothian.

These facts are sufficient to show that, amidst other improvements, agriculture has not been standing still. And as improvements in manufacturing machinery have led to a fall in the prices of manufactures, so to improved modes of agriculture are we indebted for the blessing of plenty at present enjoyed by the country. And we conceive they may also be received as proofs that agriculture, in the extensive meaning of the term, so far from being in a backward and depressed condition, is really thriving beyond all former precedent. Individual landlords and tenants are no doubt suffering, but not because agriculture is not in a promising state; but because of arrangements entered into years ago, in the expectation that the high prices caused by temporary circumstances would be permanent. It would be no more reasonable to say that the cotton manufactures are in a drooping state, because the price of cotton goods has fallen, than that agriculture is in distress, because agricultural produce fetches less in the market than it did some years ago. When cotton fell in price, those who happened to have large stocks in hand, or to have contracted for supplies before the fall, no doubt suffered loss—many were perhaps brought to ruin; but it did not follow that the cotton manufacturers were, as a body, engulfed in destruction. Nor because individual farmers, with old leases on their hands, cannot fulfil their contracts with the present prices, can it fairly be agreed that agriculture is in distress. The capital which is so ungrudgingly expended in agricultural improvements, and the energy and ability displayed by agriculturists, is a symptom the reverse of discouraging with respect to the condition and prospects of agriculture. When the price of every commodity has fallen so greatly, landlords cannot expect to receive the same nominal rents as when the prices of every

article of consumption were from one-third to one-half higher.

Those who are most diligent in the improvement of their estates will, as formerly, receive the highest rents. It will not do for them to imitate the lazy Lawrences of the south, who walk about with their hands in their pockets, and then complain of want. But it is from the south that the cry of agricultural distress has chiefly proceeded; that is, from those who resolutely adhere to the imperfect and expensive custom of their forefathers, and refuse to adopt the most self-evident improvements—who still continue to employ from three to five horses at one plough, and thrash their grain with a couple of sticks cut from the nearest plantation. It is ridiculous to hear such men complaining of distress. A spendthrift may as reasonably complain of empty pockets, or a drunkard of the effects of his dram-drinking.

### FRENCH AGRICULTURE.

M. Duchatel in addressing the Council of Agriculture, Manufactures, and Commerce, stated as follows:

"You have assembled in the midst of the most favourable circumstances. Never was the state of the country more prosperous; agriculture suffers it is true from the effect of the low prices of grain, but this suffering emanates from causes, with which the laws have no power to combat, and which will continue to operate even amidst the most brilliant prosperity. Notwithstanding this transient depression, agriculture continues to progress, and at no period more rapidly, every day new systems are being developed, and implements improved; it possesses abundant sources of riches, and the produce of the beet root is beginning to dispute in quality the sugar of the tropical regions.

Government has encouraged by every effort the establishment of agricultural institutions, communicating to the agriculturists a spirit of emulation and advancement which they too often require, (or which too often fails them.)"

He then alludes to manufactures, instancing that the beauty of the manufactures, and the improvements in producing them speak the progress they have made. He then commences referring to the rail roads, by saying, "the iron railways are the most brilliant creation of genius of our age, and strongly recommends their adoption as beneficial to agriculture, to manufactures, and commerce." (This part of his speech forms a curious contrast with the reasons assigned by the Prussian Government forbidding their formation, or that of companies favouring their progress; and the contemplated railroad from Berlin to Potsdam is consequently prohibited.)—M. Duchatel concludes thus:—"The most efficacious means of augmenting the power of labour, is instruction. Since 1830, the attention of the Government has been directed towards its dissemination among all classes of society; but the general establishments of public instruction, are they sufficient for all wants? are there not institutions specially founded to promote the interest of agriculture, and likewise certain branches of industry? it is thus, that we already have veterinary schools, and schools of art and trade; what new protection then can be given to agricultural instruction? is there room to create in some of our grand centres of manufacture schools of industry? In order to form an assemblage of knowledge and information on these subjects so deserving of interest, I cannot better forward such designs, than by addressing myself to an assembly, where the wants of agriculture and industry are appreciated with so much wisdom.

"You are aware that a commission composed of great parts of the members of the council of agriculture has been commanded by the king to prepare the basis of a *Code rural*." I have consulted respecting the principal questions with the general councils of the departments. The council of agriculture will doubtless not

fail in comprehending this important matter within the circle of its labours." After which the general council separated to nominate each their president. The order of the day on their re-assembling is, the consideration of the question respecting railroads.

### SMITHFIELD MARKET.

(From a Correspondent.)

A very serious controversy has arisen, calculated to furnish employment for the gentlemen of the long robe, between the corporation of the City of London and certain salesmen in Smithfield market, who have determined in consequence of the inadequate and shameful accommodation provided for the stock sent to Smithfield for sale, to resist the demands made by the corporation on tolls and pennage on that portion of the city property contiguous to Smithfield, which is called *the improvement to the market*, in which place the salesmen are obliged to stand ankle deep in mud and water, to say nothing of the wretched state in which their sheep are kept during the greater part of the night and following day, till sold, after having travelled many miles without rest. On this improvement, as they call it, it is quite evident the corporation has no legal authority to hold a market, or to exact pennage, or tolls, and that all sales effected there are illegal, as regards both buyers and sellers, who are liable to prosecution.

The following opinion given by Mr. Serjeant Shepherd, the Recorder, and the Common Serjeant appears quite conclusive on this subject, and on this authority the salesmen have determined to abide:—

"We are of opinion that the corporation have no legal authority to make use of their lately-purchased freehold estate, by way of extension or enlargement of the present Smithfield market, no toll can be legally demanded or taken on such extended market place, nor will a sale there operate as a sale in market, overt. The market is granted to the city to be held in Smithfield; and the law is most clearly laid down in the case of Weyhill-market, reported in 3 Mod. Rep. 108, and in a very moderate decision of Curwen v. Salheld, that where the place in which the market is to be held is limited, the market cannot be held out of that boundary. In case such an enlargement of the charter market should be made by the city, it would be an usurpation on the crown, for which they would be answerable on an information of quo warranto, in which judgment of removal of such usurped franchise would be given against them, and they would be fined at the discretion of the court for such usurpation."

It is of great importance to the public that all such arbitrary claims as those above alluded to, with many others demanded by the corporation, alike injurious to the trade and commerce of the city of London should be set at rest, and it is greatly to be desired that the Municipal Reform Bill, may amply provide the means of getting rid of such an injurious impost, as well as relieving the public from such an abominable nuisance as Smithfield market now is, to the metropolis generally.

Since 1828 the manufacture of sugar in France from beetroot has very considerably increased; at the above period there were only 58 manufactories, while at present there are 497. In less than seven years the native produce of the article has increased from four millions of kilogrammes (each kilog, being equal to about 2lbs. 3oz. English), to 30 millions of kilogs, and may be calculated at the termination of 1835 at equal to 40 millions of kilogs.

His Majesty has become Patron of the East Sussex Association for the encouragement of industrious labourers, and also of the West Sussex Association, agricultural and an annual subscriber of 20l. to each.

ARRIVALS of GRAIN into the Port of LONDON for the last FIVE YEARS, during the three months ending 31st Dec. in each year.

	Wheat	Barley	Oats.	Beans	Peas.	Flour.
1831	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Sks.
English .....	66152	117065	54589	21872	14638	134277
Scotch .....	9552	20936	26887	654	281	902
Irish .....	36467	2927	120532	..	32	1908
	112181	110925	201999	22526	14951	154260
1832	75601	108352	35018	18819	17935	90126
English .....	1146	4632	21861	1023	229	760
Scotch .....	4873	45	73794	17	..	3955
Irish .....	81620	113029	233673	19859	18161	94841
1833	86126	126053	41438	25049	15882	112933
English .....	2252	5991	49576	931	123	716
Scotch .....	7254	2212	165992	..	..	6088
Irish .....	95632	134256	257006	22980	16005	119737
1834	117079	94559	17717	14936	6355	100919
English .....	2318	35520	90496	859	419	829
Scotch .....	3241	28875	189072	50	..	2805
Irish .....	122641	155754	297285	15845	6774	104583
1835	123459	115079	43190	19520	21082	119684
English .....	356	6365	22327	129	40	975
Scotch .....	1065	4107	146190	..	..	823
Irish .....	124971	125561	211707	19649	21122	121482

ARRIVALS of FOREIGN CLOVERSEED into LONDON, LIVERPOOL, and HULL, during the last six years, ending 1st June in each year, and the Quantity Imported into the same Ports from abroad from the 1st June to the 31st Dec., 1835.

	1830.	1831.	1832.	1833.	1834.	1835.
LONDON from	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.
France .....	9582	52628	16440	15270	2966	3176
Hamburg .....	21476	35804	14561	11234	8886	11856
America .....	2094	13810	1391	38	..	676
Holland .....	4796	2372	2498	216	12851	5112
Belgium .....	82	61	1176	126	484	2338
Other Ports .....	352	2256	514	1098	1536	538
Total .....	35382	110934	36586	27982	26696	26716
LIVERPOOL from						
America .....	2451	20158	2710	102	680	2998
Other Ports .....	..	304	36	10	1410	692
Total .....	2451	20762	3016	112	2120	3690
HULL from						
Hamburg .....	4122	15682	8588	9992	6536	11270
Holland .....	1116	74	44	..	1140	5938
Other Ports .....	22	436	74	366	..	1038
Total .....	5260	16858	8706	10358	10976	21266
Grand Total ..	46096	148554	48308	29452	39792	51672

The arrivals from the 1st of June to the 31st Dec., 1835, into the Port of LONDON, have comprised from HAMBURG, 822 casks, 54 barrels, 2276 bags, 11 cwts.; ROTTERDAM, 33 casks, 1195 bags, 1248 cwts.; HAN-LINGEN, 6 bags; ANTWERP, 680 bags, 772 cwts.; OSTEND, 20 bags; FRANCE, 1312 bales of two cwts.; AMERICA, 50 casks, 252 barrels, 770 bushels; SWEDEN, 21 casks, 251 bags; DANZIG, 116 bags; NASKOW, 27 bags; NYBORG, 3 bags.

Into LIVERPOOL from AMERICA, 57 hhdts, 73 casks, 25 barrels, 1062 bushels; ROTTERDAM, 122 bales of two cwts.; ANTWERP, 154 bags; MARSHALL, 7 bales.

Into HULL from HAMBURG, 169 casks and 798 bags; ROTTERDAM, 357 bags; ANTWERP, 135 bags.

EXPORTS FROM HAMBURG IN 1835.

	Wheat.	Barley.	Oats.	Beans.
British ports .....	qrs. 7,000	qrs. —	qrs. 500	qrs. 1,900
Other Foreign ports ..	34,000	7,900	5,400	1,600
Total Exports .....	41,000	7,900	5,900	3,500
	Peas.	Tares.	Rapeseed.	
British ports .....	qrs. 1,700	qrs. 3,200	qrs. 12,800	
Other Foreign ports ..	700	100	1,500	
Total Exports .....	2,400	3,300	14,300	

EXPORTS FROM HAMBURG IN THE YEARS

	Wheat.	Barley.	Rye.	Oats.	Beans.	Peas.
1825 .....	92,500	127,000	21,500	17,500	2,000	5,000
1826 .....	119,000	31,500	28,600	102,000	13,000	7,500
1827 .....	33,000	17,500	700	68,000	5,400	3,300
1828 .....	187,000	32,800	14,800	11,300	5,800	5,900
1829 .....	217,300	22,100	30,600	7,700	1,900	1,600
1830 .....	322,306	29,300	63,200	10,500	2,400	7,600
1831 .....	219,400	30,650	73,500	6,500	1,650	8,550
1832 .....	137,700	9,250	32,400	14,000	600	1,000
1833 .....	95,700	9,000	28,900	3,700	2,700	7,400
1834 .....	68,200	7,800	23,900	8,600	6,700	10,000
1835 .....	41,000	7,900	19,700	5,900	3,500	2,400

EXAMPLE IS BETTER THAN PRECEPT.

Mr. Editor,—Earl Spencer has set a noble example to other noble Earls, and the friends of agriculture in general. Allow me, through the medium of your valuable pages, to direct the attention of your numerous readers to the following statement:—"Earl Spencer bestows annually at Althorp, a prize of £12 to the best hedge-cutter who shall cut, lay, and ditch, in the most workman-like manner, eleven yards of hedge row. It was contended for by sixty hedge-cutters of Northamptonshire and other counties; and after due examination the prize was awarded to Ptolemy Davenport!"

Mr. Fidler and his company at Rowle, are capital bankers; there are some very superior hedgers, ditchers, and Bankers, at Etehillampton and Potterne; the same may be said of some of the Horton and Bishops Cannings natives. You know, Mr. Editor, it was from Bishops Cannings, originally, we derived our charter as Wiltshire moon-rakers. Perhaps the Wiltshire and other Agricultural Societies may think proper to take this subject into their serious consideration.—I remain, Sir, yours, with respect,

A MEMBER OF THE WILTSHIRE COMMITTEE.

ENTOMOLOGICAL SOCIETY.—The ordinary meeting of this society was held on Monday evening, at its rooms in Old Bond-street, the Rev. F. W. Hope, F.R.S., President, in the chair. A communication from Mr. Raddon, respecting the natural history and habits of the turnip-fly, was read by the secretary, which was accompanied by specimens of the larvæ and pupæ. The larva is a small black caterpillar, having six legs, of about an eighth of an inch in length, being extremely active and hopping about with great agility, so as to render it extremely difficult to catch. Towards the end of the summer it enters the earth, and there undergoes the change of form, coming out of the pupa or beetle. When finely powdered lime was sprinkled over the turnips, the insect evaded it by getting under the leaves, whilst a solution of sulphate of potash so strong as to destroy vegetation, had no effect in arresting its ravages. It appeared that where the manure had been ploughed into the ground, immediately on its being placed in the field, the fly is found to abound; but that where the manure is placed on the ground in the autumn, and allowed to remain for a month or two before it is ploughed in, there are scarcely any flies seen. The best essay on the habits of the insect, and the readiest and cheapest mode of preventing its ravages, is the subject of a prize to be given by the Society in the course of the present session.



## HORSEMANSHIP.

## THE STIRRUP.

It has already been shown that the stirrup is of the most essential service; and as I differ in opinion from all preceding writers respecting its general utility, I shall, before I proceed further, give the reasons upon which I maintain my doctrine, produce those in opposition to it, and thus enable the reader to draw his own conclusions or decide for himself.

Those who have given their opinions to the world were military and manège horsemen, and the language they hold respecting the stirrup is this, that "*it should be of that length so that the weight of the foot only rests in it; the foot placed no further in the stirrup than the ball; and that the stirrup conduces not in the least to the safety of the rider.*" Many years have elapsed since I first perused, with much surprise, the maxims here laid down. Of their incorrectness I have been perfectly convinced by very considerable practical experience, which has mainly influenced me in publishing the observations contained in the present essay.

The ancients would appear not to have been acquainted with the use of the stirrup; at least if an opinion is to be formed by the statues which have reached the present times. Yet, I am inclined to think, that if they were unacquainted with the stirrup, they made use of some substitute; but, as antiquarian research is not called for in this place, I shall proceed to the more immediate object in view. The Turks, the Persians, the Arabs, the Cosacs, and, indeed, all barbarous nations where the horse is found, make use of the stirrup; and, in opposition to our professed riding-masters, use it short. I am not pointing out the mode of riding just noticed as a pattern of imitation; I mention it to show that these barbarous people, directed by ease and convenience, find the short stirrup answer these purposes better than the long stirrup. Let it, however, not be supposed that I am an advocate for a *very short* stirrup; as the old proverb says, there should be reason in all things; the middle course will generally be found the best; I advocate neither the *very long*, nor the *very short*, stirrup; but that precise length which I have found most consistent with ease and safety, from many years' experience, as well as from numberless practical experiments, made for the purpose of ascertaining the point in question.

According to the instruction of the riding masters, the foot should be placed in the stirrups as far as the ball, or roots of the toes. The bearing of which should be merely the weight of the foot, or less if possible; we are then told something about the muscles of the thighs grasping the saddle, or operating to secure the seat by the firmness of their hold, the riding masters forgetting, that, by the extension or elongation of the muscles caused by the weight of the lower extremities, they

are utterly deprived of the power of contraction, which can alone enable them to have any hold of the saddle. Let any person who feels interested in the business, ride a horse over a leap (or *jump*, according to modern phraseology) having the stirrup of that length so that the ball of the foot merely rests in it; if the rider has a good balance, and the jump merely mechanical, as at the bar, for instance, he will get over without a fall; but, let the same person then shorten the stirrups one inch, or half an inch, and repeat the jump, he will find that his seat is not only more pleasant, and more firm, but by thus bearing more weight in the stirrup, the muscles contract, and enable him to sit so close to the horse as to appear of one piece. Further, should there be any hesitation on the part of the horse, or any thing awry in the jump, he will still maintain his seat, which, under such circumstances, would be almost impossible with the long stirrup.

The *learned professors* thus express themselves:—"the knees must be stretched down and kept back, which will occasion the rider to sit on his fork or twist; the legs are to hang near the horse's side, but not to touch; the heel is to be sunk as low as possible, and the toe raised. *This will give firmness and strength to the muscles of the legs and thighs!*" I have lived many years in the world; I have read much; but I never recollect any thing more absurd having fallen under my notice. In the first place, it may be observed, that, resting the weight of the body on the "*fork or twist*" cannot well fail to produce rupture in many instances; and hence we see the cause which has, at times, thinned the ranks of our cavalry, and which it is endeavoured, at this moment to counteract with belts, &c. Further, when the thighs and legs are stretched down, the heels sunk as low as possible, and the toes raised, how is it possible that the muscles of the legs and thighs can acquire firmness and strength, when, by being thus stretched out, they altogether lose their compressive force!

The fact is, that the stirrup, without being unreasonably short, should be of that length that will enable the rider to sit with his knee a little raised, thus giving him in reality "*firmness and strength in the muscles of his legs and thighs,*" while he is fundamentally supported by the bearing of his foot in the stirrup.

I never saw a single instance of a huntsman or whipper-in riding with long stirrups, and they are continually placed in situations where the strength of their seat is tried. — Goossy, huntsman to the Duke of Rutland, rides with remarkably short stirrups, as did his predecessor, Shaw, one of the best riders across a country I ever saw. Sebright, who some years since hunted the Quorndon pack, is at present huntsman to Lord Fitzwilliam, rides as well as Shaw, and, like him, uses short stirrups. Similar remarks will apply to Richards, Payne, Shirley, Head, and many

other huntsmen whose performances I have witnessed.

On the race course a firm, strong, and steady seat is indispensably necessary—but who ever saw a jockey ride in long stirrups, and his heels sunk as low as possible?

Consequently, if long stirrups are utterly inconsistent with riding after hounds, on the race course, and in all critical and trying situations, they cannot be advisable for the road, or, indeed, for any useful purpose, under any circumstances.

The stirrup should be of that precise length by which the rider will perceive that he can accomplish the firmest grasp with his knees and the calves of his legs, without loosening the thighs from the saddle. The foot home in the stirrup, and placed horizontally, that is, the heel not sunk lower than the toe.

As to the idea entertained by timid and bad horsemen of the danger of placing the foot home in the stirrup, it is quite unfounded. The seat will be much firmer with the foot home; and, in order to dispel all kind of apprehension, in case of a fall, of the foot becoming entangled, let the drop or spring stirrup be used, and the spring bar at the saddle also, articles which may be procured at any saddler's shop, and a glance at which will convey a much more correct idea to the mind, than can be accomplished in several pages of description. I cannot conceive how the foot of a man could become entangled in the common stirrup, unless, indeed, he wore buckles, or something improper about his feet. A boy's foot might perhaps go through the stirrup. The greater part of such accidents have happened to boys, who have placed their feet—not in the stirrup, but in the stirrup-leathers.

#### THE SEAT AND THE BALANCE.

The seat is the conformation or disposition of the several parts or members of the rider in correspondence with the position or motion of the horse. For instance, when a horse plunges, kicks, or jumps, if you have not a strong muscular hold with your legs and thighs, assisted by a corresponding motion or exertion of the body, you will be unhorsed. The very perfection of the seat is, to be ready and prepared for every emergency without much effort: and, by way of contradistinction, it may be observed, that a person may sit prepared for a horse's rearing, and would tumble over his head should the animal fall on his knees. Again, a person prepared against kicking only, would be in danger should the horse rear. The art of horsemanship, therefore, is to give the rider confidence and safety in all positions, and under every circumstance.

When seated in the saddle, the body should be upright, and the shoulders thrown back, the foot well home in the stirrup, and the latter of such length as to elevate the fork of the rider above the pommel of the saddle when he raises himself or stands in the stir-

rup. He will thus have an easy, pleasant seat, his knee somewhat bent, and his foot placed horizontally in the stirrup. The rider thus acquires an easy, elegant, and firm seat, by which he is enabled to bring the muscular strength of his legs into operation in a sort of involuntary or spontaneous manner, and is consequently prepared for every emergency. It is true, this position of the rider differs from that of the manège, inasmuch as it is neither so stiff, so formal, nor so insecure. The disciples of the manège will start at this, but it is not the less true on that account; for, let it be recollected, that manège riding is systematic to a mechanical degree, and that the rider is always prepared for the operation of the horse; even the capriole, the most difficult and most notable feat in the whole system, is rendered easy to sit, since the rider, aware of what is coming, deliberately prepares himself for it; it takes place too in the school, upon an animal trained expressly for the purpose. But on the road, and in the field, the case is different; for instance, in trotting smartly along the road, a spirited horse, in high condition, will start occasionally at the sudden flight of a bird from the hedge, or other trifling circumstance; the animal will start on one side so suddenly as to disarrange the seat or position of the rider, and he will be very apt to come to the ground with the long stirrup and the stiff perpendicular position of the manège, or may, perhaps, receive a serious injury from the pommel of the saddle. In the field, various circumstances are constantly occurring against which manège riding is but a poor protection.

The great security of a horseman's seat is the grasp of the knee and the calf of the leg; and of the decided superiority of the position which I have described, compared to that of the manège, any person may easily convince himself by getting on the back of a horse, and trying the experiment. With the stirrup the length I have pointed out, and the foot placed in it according to my directions, he will perceive he has a firm bearing, and a strong grasp of the horse's sides; on the contrary, with the stirrup long, and heel sunk as low as possible, he will find himself unable firmly to grasp the sides of the horse, or, indeed, of exerting the muscles of the legs and thighs laterally, as they are rendered incapable of it by that perpendicular stretch or extension, which they cannot fail to experience under such circumstances.

The head should be upright, chest thrown a little out, back a little hollow; the arms, from the shoulders to the elbows, should hang perpendicularly by your side; the elbows bent, so that the left hand should be situated about two or three inches above the pommel of the saddle; the arm above the wrist, may lightly rest against the body; and the wrist so bent that, the thumb being upwards, resting on the first joint of the fore finger, may point between the horse's ears. The right hand, holding the whip, should be placed

rather lower than the other, in order that it may not obstruct the operation of the bridle. Hence you will perceive the nose and the breast will be perpendicular, the knee and toe advanced a trifle beyond this imaginary perpendicular line. The sight of the foot should be, in a great measure, obstructed by the knee. The whip, if carried with the lash downward, should not touch the hind quarter of the horse; it may be carried with the lash upward, near the rider's shoulder, the hand taking the other end between the finger and thumb, after the manner in which a pen is held.

A person will, no doubt, feel stiff and awkward when first placed on the back of a horse, which, however, will subside in a much shorter time than might be expected. Nor is it, indeed, necessary that a person should always ride strictly in the above position; but, inasmuch as it constitutes the fundamental principle of the science of horsemanship, the rider should well understand it, and can afterwards exercise his judgment when to use the power of which he feels himself capable.

When seated in the saddle, the thighs should be inclined as much inwards as feels pleasant to the rider; the same may be said of the legs and the toes. There are, however, situations on horseback where a trilling deviation of the legs and toes becomes advisable, which will be pointed out in their proper places.

It will be easily perceived, that the seat which I have described removes the weight of the body (in a great degree) from resting on the absolute fork, and consequently ruptures become much less liable, to say nothing of the superior ease, gracefulness, and security of the rider. In the position in which the horseman is placed in the book published under the name of Allan (already noticed) it would not be possible to ride without great pain and great danger.

The rider should always be in a position to maintain the seat and preserve the balance also; by the latter is meant the preservation of the body from inclining to one side or the other. The seat is keeping firm in the saddle at such times as the body is liable to be thrown on the horse's neck, or over his head, tumbling backwards, &c.

To preserve the balance, the body must keep in the same direction as the horse's legs; for instance, in trotting or galloping round a course, the horse will be found to lean inwards, and therefore to preserve the balance the body of the rider must take a corresponding position. Similar remarks are applicable should the horse move in a circle, &c.

In order to acquire the correct balance, practice in circles (the longe) is very useful, beginning on large circles, and an easy trot, contracting the circles and extending the pace by degrees. The tyro should practice, in the first instance, without stirrups; and, when he has acquired confidence, let him quit the

bridle-reins, (the master or an assistant attending to the longe), and he not will fail to acquire a good balance and firm seat. The circles should be worked both to the right and left. A little practice with the hands placed behind the back, will throw up the chest, and give the rider an elegant position.

### THE HANDS AND THEIR ACCOMPANIMENTS.

I have already observed, that the essential principle of horsemanship mainly consists in the corresponding motion or position of the rider with that of the horse; that is, the motions of horse and rider should be in unison, or complete correspondence with each other; and for the attainment and preservation of this desirable object, the rider must be principally indebted to the operation of his hands.

The judicious application of the hands constitutes the excellence of horsemanship. In the case of restive or vicious horses, the hands are the principal security of the rider, and baffle or counteract the efforts of the horse.

It may be further remarked, that the ease, the grace, and elegance of horsemanship arise from the hand. By it the rider lightens the mouth, raises the forehand, and directs the motion of the horse.

This subject is not sufficiently attended to by horsemen in general, and by grooms in particular; indeed, a groom is rarely seen who understands the correct application of the hands; and the same observation is applicable to many of those who make a living by horse-breaking. Most of the latter are, indeed, persons who have been originally grooms, and either from bad conduct, or some other cause, having lost their situations, resort to horse-breaking as the means of a livelihood.

The circumstance of defective hands originates a preference to what are called snaffle-bridle horses. Persons who prefer snaffle-bridle horses know not how to handle the reins, since there are no horses but what will ride much pleasanter with a double bridle, when the rider understands the proper management of it.

In order to acquire the correct and complete operation and effect of the hands, an expertness in managing the reins is indispensable. Like other operations, it requires practice before the rider can well understand the business—before he can accommodate his hand to the mouth of the horse. For instance, it can scarcely have escaped the notice of any person, as the circumstance is by no means an uncommon occurrence, that when an inexperienced or awkward horseman has hold of the curb-rein, it prevents the horse from standing quiet, owing to the pain which the animal experiences. He, at length, loosens the curb-rein, when the horse becomes quiet, because the irritation and pain ceases. Now, to what does this amount? Not that the curb was improper, but that the rider did not under-

stand the management of it; he held the curb-rein too tightly for the feeling or sensibility of the horse's mouth, and consequently rendered the animal uneasy. The same degree of tightness or pull at the curb with a horse of a less delicate mouth would have produced no uneasy sensations in the horse, and he would, therefore, have remained quiet. Hence the necessity of accommodating the hand to the feeling of the horse's mouth; and as this feeling varies in different horses, so the operation of the hand should vary accordingly. What are called hard-mouthed horses are unpleasant to ride; but, as their mouths have been rendered insensible from improper treatment, the defect may be remedied by the judicious operation of the hand.

In my observations, I have had the common double bridle in view; yet it must not be forgotten, that other bridles are used, which will be noticed hereafter; and in the management of which the rider could be at no loss, after having made himself well acquainted with the previous instructions.

If it be thought desirable to change the reins from the left to the right hand, it should be performed in the following manner: turn the thumb of the left hand towards the right, put the fore-finger of the right hand downwards, between the reins in the place of the little finger of the left hand, and lay the reins smoothly through the right hand; by which the fore-finger separates the left reins from the right, and the superfluous reins hang downward through the hand; the thumb presses the left reins between the first and second joint of the fore-finger. The whip still remains in the right hand, but may be easily shifted if the rider wish it. Should the reins become shorter by this method of shifting them, they should be allowed to slip to their proper length. Shifting them again to the left hand is performed by placing the third finger of the left hand downwards between the left and right reins, laying them smoothly through the hand and letting the ends hang over the fore-finger (as at first) secured by the thumb. Practice of this sort is advisable; and shifting the reins will relieve the left hand when cramped or tired.

Occasionally the reins must be separated, and held in both hands, in order to increase the power of the rider. When a horse refuses obedience to one hand, the other should be applied to the reins; hence all raw young horses are rode with both hands; and whenever both the hands are called into action at the reins, it is only necessary to take the off bridle (snaffle) rein into the right hand; put the three first fingers over the rein in question, by which you will receive it between your little and third finger, pressing it between the fore-finger and thumb.

When a horse is passing over slippery, stony, or uneven ground, the safest method is to apply both hands to the reins, which will enable you to give much more support to the horse in case of his stumbling. Applying

both hands to the reins is requisite in the case of restive or vicious horses, a subject which has been noticed.

Shortening and lengthening the reins are operations too obvious to need detail; in fact, where redundant verbosity is used in the description of evident trifles, it serves to confuse the reader, and render unintelligible what was already sufficiently plain. Yet such is the case in all the publications which have hitherto appeared on the subject of horsemanship.

The judicious operation of the hand is a great attainment in horsemanship. The hand is connected with the reins, the reins to the bridle (snaffle) and curb; the latter operating on the bars of the horse's mouth, and the former on his lips; hence, scarcely a finger can be moved but the mouth of the horse is affected by it; this constitutes what is technically and justly termed the *correspondence*.

A good and masterly hand will make the hard untutored mouth partake of its sensibility, which is what the professed masters would call *dressing* the horse; but as the highest dressed horses, when rode by heavy insensible hands, become as heavy and dead as the hand of the rider, so may the tutored hand, if neglected, abandon its excellent quality, and conform itself to the deadness or callosity of the horse's mouth. Hence it sometimes happens, that horses which gave their owners every satisfaction at first, so alter from the bad hands of themselves, or their servants, that they are under the necessity of parting with them.

In order to convey a correct idea in what manner the hand operates to produce the proper effect on the mouth of the horse, I must observe, in the first place, that the reins should be held in the manner already described, and the hand so placed that the ends of the fingers are opposite to the centre of the rider's body, about the height of the elbow; the reins collected to that precise length, that contracting the muscles of the hand would rein the horse back, and the easing of them would enable him freely to advance. I am, of course, supposing the horse has a good and delicate mouth; or what the French would call *un cheval du bon appui*.

If the hand be held steady as the horse advances in the trot, the finger will perceive, by the contraction and dilatation of the reins, a trifling pull occasioned by the measure or cadence of every step. This trifling pull or sensation, which is equally felt in the hand of the rider and the mouth of the horse, (by means of the *correspondence*) is, in the language of the school called the *appui*;\* and while this *appui* is strictly maintained or continued, the horse is in perfect obedience to the rider, and is directed with so much ease, that he seems to obey the will (as it were) rather than the hand of the rider.

\* *Appui*—which may be translated, in this case, the rest of the horse's mouth upon the hand.

For preserving a medium effect on the mouth, the hand should be only half shut, the joints of the finger next the wrist or knuckles being nearly open. Hence, by extending and shutting the fingers, you acquire sufficient power to control or direct a well-broken and obedient horse.

The power and effect of the hand will soon be perceived by a little practice. The degree of *appui* depends on the relative situation of the hand, and position of the horse: the raising of your hand increases your power, and the raising of the horse's head diminishes his power; and as the situation of the hand, in point of elevation, so powerfully operates on the mouth that every quarter of an inch has a perceptible effect; so has its situation if carried to right or left. In order, however, to avoid as much as possible, moving the arm or hand, the motion of the wrist will produce such positions of the hand, as, being accompanied by the corresponding aids of the body, &c., will effect whatever may be required for a well broken horse.

*Aids* are certain positions of the hand, body, legs, and sometimes the whip, which direct the horse agreeably to the will of the rider; the hand is the principal, the others are called *accompagniments*, which increase the power and efficacy of the hand. Therefore, as the positions of the hand are described, the corresponding aids will also be pointed out.

The first position of the hand (the left hand) is, the thumb upwards, the little finger downwards, so that you can just see the ends of the fingers, and placed as already observed a little higher than the pommel of the saddle. The aids applied to this position of the hand are such as affect the action and position of the horse, as raising his head, and, in the school, working the croup, &c.

The second position of the hand directs the horse to the right; for the accomplishment of which, turn the little finger to the right, the thumb to the left, the nails upward, which will carry the operation of the reins nearly three inches more to the right, by which the left reins will press the neck, and the right reins will become slack, and the horse will move to the right. To give greater efficacy to the motion, the body aids by turning to the right, and, if necessary, likewise inclines, the right leg aiding, at the same time, by pressing it against the side of the horse behind the girths.

The third position of the hand is the second reversed, and consequently directs the horse to the left. It is thus performed; turn the little finger to the left, the thumb to the right, when the back of the hand will be upwards. The right reins will press the neck, the left reins become slack, and the effect will be to move the horse to the left. The corresponding aid is turning the body to the left and pressing the left leg against the horse's side,

in a similar manner to that which was directed for the right.

These aids are to be applied in proportion to the effect you wish to produce, and great exactness, uniformity, and delicacy, are requisite to correctness of execution. By way of illustration: these aids, properly managed, will turn the horse on three distinct and separate pivots; first, on his centre, by which is meant that point directly under the seat of the horseman, in which the fore-feet take the place of the hind, and the hind of the fore. Secondly, on the fore-feet, in which the fore-feet keep their ground, and the hind-feet move round them. Lastly, on the hind-feet, which keep the centre, whilst the fore-feet describe the circle. Further, conceive a circle of twenty yards diameter, and the number of circles which can be described within its circumference; hence it will be easily perceived that so many degrees of operation these aids will have to perform. The smaller the circle, the greater must be the degree of aid, and *vice versâ*; and although upon a large circle, the aids are scarcely perceptible, yet, if they were not called into operation the horse would move in a straight line.

Whether you move to the right or left, let the aids of the hand, body, and legs, exactly correspond, and practice as much to the one hand as the other; or, at least, practice till you are equally expert with both. At first proceed slowly, for you will thus much sooner acquire the proper method; and when you turn rapidly, the aids must be strongly given accordingly.

Many horses will at first testify reluctance to being thus twisted about; (and, indeed, it will never be absolutely necessary, except in the manège or military riding,) in which case apply the other hand to the reins; for though the delicacy of the operation will be superseded, that is of much less consequence than the non-performance of it. Should the resistance of the horse require a considerable strength of the hand, your power to force him to compliance increases in proportion as the hand is taken from the body; so that when you pull in the direction from the horse's mouth to the horse's croup, your power is very much greater than when you pull in a line to the centre of your body. The other aids must be given in proportion, and the rider must be guided in a great degree by his own discretion.

The fourth operation of the hand is to induce the horse to rein back. The first position is sufficient for this purpose. The reins being properly adjusted, the pressure of the finger, or closing the hand will be sufficient for delicate mouthed horses; but, in order to give greater efficacy, turn the knuckles a little down, and draw in the belly, the body rather inclining forward, which will give the hand greater effect, without provoking the horse to rear, which would be likely enough to happen with horses which do not readily obey the hand, particularly if the rider lean back

to acquire more power, which would place him in great danger, because he would not be in a situation to act under such circumstances. The horse would, perhaps, be pulled backward upon the rider.

In reining back, should the horse not readily obey, play with his mouth by moving the fingers. This will induce him to raise his head; gently close your legs, which will bring him together, (make him *unite*) and then the closing of the fingers will induce him to rein back. The instant the horse is constrained to back, the body, if in a proper position, will incline forward, and the fingers must be eased, otherwise the horse must be backed till he falls. Therefore, as soon as the horse yields to the hand, the body and hand should yield to the horse, that he may recover his balance, and the little alarm the operation has occasioned him, when you may gently invite him to back again.

Reining back is principally required in the army and the school; practising it a little, however, will tend to make any person a more complete or finished horseman. But the practice must be conducted with mildness and good temper, and not continued too long at a time, lest the horse should become impatient.

Let it be recollected that the hand must always maintain a determined firmness; it must not yield to the craving of the horse to get the ascendancy. For instance, a horse will, if permitted, abandon that delicate correspondence which produces the *appui*, and loll a dull weight on the hand. A horse, however, well broke, after being ridden for a while with a dull heavy hand, will generally fall into this habit, and is consequently liable to fall down and break his knees, and, perhaps, the rider's neck or limbs. A horseman, therefore, should always use a light and lively hand. Should the horse persevere in his attempts to attain the ascendancy, the reins should be shaken to induce him to raise his head, the correction of the hand must be given severely, in the following manner: yield the hand so that the reins become slack, then give them a smart pull or snatch in an upward direction, which will make him raise his head, and the apprehension of your repeating it will deter him from putting it down again.

Having spoken of the *firmness* of the hand in a direct sense, a few words more on the subject, collaterally, or by way of qualification, become necessary; since, although the hand must be sufficiently firm and decisive to enforce the requisite submission, yet it should be susceptible of a delicate and sensitive feeling, soft, pliant, and discriminating, in order to accommodate the horse under every circumstance. By the feeling of the hand the rider should become aware whether the horse wishes to disengage himself from the restriction of the hand, or whether he desires a momentary freedom for his own ease. For instance, he will remove your hand if he wants to cough; he will move his head if cramped by too long confinement, to

drive off flies, &c, under such circumstances the horse is entitled to all reasonable indulgence.

Further, in addition to the properties already enumerated, the hand should possess an enlivening, animating quality, which the horse will easily understand and readily obey. This is a light movement of the fingers and the muscles of the hand, which is communicated to the mouth of the horse, raises his expectations, and keeps him lively. It also eases and refreshes the horse's mouth.

#### THE ALLOTMENT SYSTEM.

At a meeting of the Somersetshire Agricultural Labourers' Friends' Society, held in the Bath Assembly Rooms, the Bishop of Bath in the Chair, in the course of the proceedings several speeches having been made, the following calculations were submitted by Dr. Parry:—

The number of acres in England alone, according to population returns, are . . . . .	31,770,615
Of which those under cultivation, or which are capable of cultivation, are supposed to amount to . . . . .	29,000,000

According to the same returns, the labourers employed in Agriculture are . . . . .	744,407
The labourers not agricultural . . . . .	500,000

Total . . . . . 1,245,357

If 744,407 labourers in agriculture have, of the above amount of acres under cultivation, &c.,  $\frac{1}{4}$  acre each, 186,102 acres will be required, or about 1-155 part; or, in every 1000 acres, 6 acres 100-155.

Should these labourers receive only 20 perches each (and 30 perhaps is the present average), then would be required only 93,051 acres, 1-310 of the whole, or about  $3\frac{1}{2}$  acres in every 1000.

Or, secondly, supposing all the labourers, agricultural and not agricultural, were admitted, and had each  $\frac{1}{4}$  acre, then 311,339 acres, or rather more than 1-93 part of the whole cultivated or cultivable lands in England would be required; or, at 20 perches each, only 1-186 part, being as 10 70-93 and 5 70-186 acres in every 1000.

Now, if the produce of one acre, thus cultivated, may be valued at 20*l.*, and in some cases it is reckoned at 26*l.*, 27*l.*, even up to 60*l.*, it is clear that the whole value of the land thus cultivated by the surplus labour of the agriculturists alone, at  $\frac{1}{4}$  acre each, is 3,722,040*l.*; or, divided amongst them is 5*l.* per head, or, reckoning 10*s.* for the rent of each allotment, 4*l.* 10*s.*; and in the same proportion for the smaller amount.

If, again, the labourers, agricultural and not agricultural, were occupying  $\frac{1}{4}$  acre each, the money value of the whole produce would be 6,226,780*l.*; or deducting as before, 4*l.* 10*s.* per head.

Now it will be observed that, on the supposition of the whole labouring population being possessed of  $\frac{1}{4}$  acre each, and that the money amount obtained by the surplus labour bestowed on field gardens equals, as it may fairly be presumed to do when the system is in operation throughout the kingdom, 6,226,780*l.*, such amount is only 159,754*l.* short of the whole sum expended for the relief of the poor, in the year ending March 25, 1833 (6,486,534*l.*); or, deducting 1-10 as the charge of rent paid, there then remains only 882,442*l.* as a balance on the side of the late poor law expenditure, above the amount which may, it appears, be fairly within the reach of the surplus labour of those who may be benefited by the introduction of this system.

AGRICULTURAL DISTRESS.

[FROM A CORRESPONDENT OF THE CHRONICLE.]

The numerous meetings on this subject, at all of which it is unanimously asserted that the agricultural interest is much depressed, although there is great difference of opinion as to the cause, deserve attention, and as all seem to point at some Legislative remedy, it is very important, particularly to the farmer, that the measure, be it what it may, should not be a delusive one.

Though in inquiries of this sort you seldom hear any party mentioned except the landlords and tenants, whose interests are said to be the same, there are other interests deeply affected; the evil, if it exists, spreads far and wide amongst tradesmen and manufacturers, and falls heavily on the poor agricultural labourers.

Much confusion has arisen on this subject by confounding the character of landowner and landlord, and farmer and tenant; the interests of landowner and farmer are as directly opposed to each other as the interests of buyer and seller in any other commodity; they are two distinct and independent characters; they have each their own separate commodity to dispose of; each seeks to obtain, by barter, a portion of the other's; the landowner's capital is his soil, that of the farmer his skill, industry, and money or stock; the landowner stands in need of the skill and industry of the farmer, and the temporary use of his money or stock; the farmer requires the temporary occupation of the landowner's soil, but neither of them contemplate parting with any portion of his realized capital. The landowner has no more right to possess himself of any portion of the farmer's money or stock, than the farmer has to retain any portion of the other's land; their bargain is, or ought to be, about the surplus of the produce of the soil which shall remain after the costs of raising it and converting it into money have been satisfied.

When the bargain is settled, the parties become landlord and tenant, and such a change has taken place in their relative positions, that it would seem reasonable to expect that they would mutually exert themselves to render the surplus produce of the land as large as possible. Is this so in practice? It is to be feared not.

Before we proceed further, let us see how this surplus, if any, is produced: the land in the hands of the owner is liable to tithes, land-tax, county, church, and parochial rates; these attach the moment the plough enters, and must be paid; the farmer, his labourers, and stock must be supported, or there can be no production, and if no production there can be no surplus; and the securing and converting the produce into money is equally essential to a beneficial result; all these outlays must be provided for, before the farmer can have any interest for the use of his capital, or the landowner fairly claim anything for the use of his land. It is obviously, therefore, under a just system, the interest of the landowner and farmer to render these outlays as low as is consistent with good husbandry; but the landlords have been the makers of the laws, and have devised a thing called *rent*, which they exact whether there is any surplus or not; if their *rent* is not paid they take not only the produce on the land without any regard to the outlay of the tenant, or of interest for the use of his capital, but they seize upon his stock also; whereas, if the outlay has absorbed the whole produce of the land, the landlord in justice ought not to claim any *rent*, and if the outlay exceeds the produce, the loss should be mutual, and borne in the same proportions in which the profits were to be shared; the landlord has no better right, in common honesty, to a part of the tenant's capital than the tenant has to a portion of the landlord's soil; if matters stood on this sound footing, the interest of the landlord and tenant would be identically the same; as matters now stand a complete severance is effected, and the question is, how can these conflicting interests be reconciled, or at least rendered innocuous to each other. This can only be done by relieving the tenant; and as

it is not at present to be expected that the landlords will relinquish their power of exacting *rent*, the relief must be of such a nature as to secure an adequate *surplus* in the hands of the tenant.

It is, I believe, very generally admitted that for several years past the landlords have been taking their *rents* from the capital of their tenants; and the landlords' cry has been, that the distress of their tenants and labourers is occasioned by what they term the ruinous low prices; but let me caution the tenants and farmers generally against expecting any relief for either themselves or their labourers from any measure having for its object an increase in the price of agricultural produce; its prices are, no doubt, at this time low, but they are only relatively so; they are low when compared with the tenant's outlay. Yet they will be lower, they must and will, in spite of any Legislative attempts either to raise or to sustain them, approximate nearer to those of other countries; and why cannot the farmers of England obtain a surplus from prices which are higher than such as are remunerative to the foreigner? Are their skill and industry less? Have they less capital at their command? Are their implements inferior? Are their labourers less laborious? Are their markets more remote? In all these respects they have a decided advantage over the farmers of every other country; then, why are not the higher prices they obtain remunerative? Simply because their outlay is greater; and why is it greater? The answer is equally simple, it is because the cost of every article they use or consume is aggravated by a system which raises the revenue by taxes on articles of use and consumption instead of from realized property, the only fair subject for taxation.

It has been customary for the advocates of the present system, when pressed on this point, to admit that taxes on articles of use and consumption have the effect of raising the price of the taxed article about 30 per cent. on the amount of the tax, and this is made out in the following manner:—

	£.	s.	d.
Say an article is taxed to the extent of ..	100	0	0
Add the charges of the merchant over producer, for interest and extra risk, 10 per cent. .. .. .	10	0	0
	<hr/>		
Increase .. .. .	110	0	0
	<hr/>		
The cost to the wholesale dealer being increased to .. .. .	110	0	0
He adds for interest, risk, &c., 10 per cent. .. .. .	11	0	0
	<hr/>		
Increase .. .. .	121	0	0
	<hr/>		
The retail dealer having to pay .. .. .	121	0	0
Charges for interest, extra risk, &c., 10 per cent .. .. .	12	2	0
	<hr/>		
Total Increase .. .. .	133	2	0
	<hr/>		
Total Increase .. .. .	33	2	0

The above, however, is not an honest statement of the case, for though it be admitted that the merchant or producer may not add, in the first instance, more than 10 per cent., it is well known that the wholesale dealers add at least 15 per cent., and the retailers upwards of 20 per cent., so that the direct effect is to increase a tax of 100*l.* to at least 150*l.*; but this is a trifling evil when compared to the indirect effect of taxes on articles of use and consumption.

The difficulty, and, as some have imagined, the impossibility, of tracing this effect, in a country where the distribution of the four necessaries of life—food, clothing, habitation, and domestic necessaries—create upwards of four hundred different occupations, through all the ramifications of which this indirect effect is felt, have led people either to deny its existence, or to contend that its effect is trifling, because its operation on any minute portion of any one of those necessaries appears trifling; but if all the merchants, manufacturers, and tradesmen employed in furnishing and distributing

these four necessaries are divided into four classes, represented by the four letters, A, B, C, and D, and instead of speaking of millions it be, for the convenience of calculation, assumed that their several and respective annual sales amount to the sum of five hundred pounds each, on one of which a tax of 30 per cent. *ad valorem* (a very low estimate) is imposed, it will not be difficult to see the effect of its operation on *all other* articles,

	£	s.	d.
Suppose the sales by A to B as representing all the customers of A to be . . .	500	0	0
Add a tax of 30 per cent. <i>ad valorem</i> ..	150	0	0
The direct effect of this tax, taken on the lowest scale of 33 per cent, is . . .	46	10	0
	696	10	0
Increase . . . . .	196	10	0

B, or the customers of A, having been accustomed to pay him only 500*l.*, now find that A's charge is increased from 500. to 696*l.* 10*s.* The customers of A, that is, B, immediately, as a matter of course, add the 196*l.* 10*s.* to the price of their own articles, increasing the charge, which had before been only 500*l.* to 696*l.* 10*s.*; the effect of which is as follows:—

	£.	s.	d.
The amount of B's sale, say to C, as representing all his (B') customers, were formerly only . . . . .	500	0	0
Increase, to countervail the additional charge of A . . . . .	196	10	0
On the 196 <i>l.</i> 10 <i>s.</i> the consumer will be charged 33 per cent., because, as articles of use and consumption generally pass through three hands at least, he will have to pay, in the shape of interest and risk, &c., at least . . .	64	5	10
	760	15	10
Increase . . . . .	260	15	10

Take C's original charge to D., as representing all his customers, at . . .	500	0	0
Add, to cover the greater charge of B..	260	15	10
Add 33 per cent. on 260 <i>l.</i> 15 <i>s.</i> 10 <i>d.</i> . . .	86	2	7
	846	18	5
Increase . . . . .	346	18	5

The original charge of D . . . . .	500	0	0
Add additional charge of C. . . . .	346	18	5
Add 33 per cent. on 346 <i>l.</i> 18 <i>s.</i> 5 <i>d.</i> . . .	114	10	2½
	961	8	7½
Increase . . . . .	461	8	7½

Total increase . . . . . 1,265 12 10½

To which must be added the effect of the re-action on A., in consequence of the increase in the prices of all other articles; for whatever may be said to the contrary, trade-men will endeavour to indemnify themselves against the increased prices of the goods they are obliged to purchase, by increasing the prices of those they sell.

From the foregoing statement it is obvious that every pound paid into the Exchequer, raised by taxes on consumption, abstracts from the pockets of the people in payment of the tax, and by increased prices on all articles, upwards of 9*l.* It is this that occasions the distress of the farmer and his labourers. The farmers' articles are of a nature that will not admit of being raised in price in proportion to the articles he and his labourers use and consume—he therefore is the sufferer; but as the evil is one inflicted by the Legislature, and the Legislature has the power to remove it, not only has the Legislature the power to remove it, but it would, by removing it, and raising the revenue from property, render the greatest possible benefit to property itself. But the landowner cannot, or will not see this. As long as taxes are

confined to articles of use and consumption, he fancies that he in some degree escapes, because they fall heaviest upon industry which he cannot consent to relieve; although, by relieving it, he would himself be benefited, for it is obvious that if all taxes on articles of use and consumption were repealed, 100*l.* in the hands of the landowner would procure for him as many of the necessaries and luxuries of life as at present cost him 370*l.*, indeed, we may safely say 400*l.*; in other words, an income of 1,000*l.* a year would be equivalent to one of 4,000*l.*

Again, let us suppose 1*l.* to represent the whole revenue paid into the Exchequer, and that the whole is paid by property, but that in order to raise that 1*l.* there are 9*l.* abstracted from the pockets of the population. What proportion of the 9*l.* falls on the shoulders of property? One-third at least: so that property prefers paying 3*l.* rather than 1*l.*, because so long as it continues to pay 3*l.* it compels industry to pay 6*l.*, out of which it is weak enough to suppose it will be indemnified by the high prices it expects to receive for the produce of its land, and, say the mortgagors, if a property tax is substituted for taxes on consumption, half the lands in the kingdom will change hands. Indeed! I conceive the very reverse must happen, because the working of the soil and the cost of living to the landlord, as well as of his tenants and labourers, would be less; and the mortgagees, the absentees, and accumulating capitalists, who now comparatively escape, would bear their fair share of the burden which now falls heavily and disproportionately on the incumbered landowner; this is clearly and distinctly implied in the very term "Property Tax." It is the opulence, and not the poverty, of the country that bear the imposts; the mortgagees, and not the mortgors; the substantial, and not the nominal proprietor; but suppose that in consequence of taxes being repealed prices are reduced; suppose tithes put on an equitable footing, which never can be done till the Corn-laws are repealed, and a property-tax substituted for all other taxes, and all pretences for high rents removed, it should happen that the mortgage interest of a few improvident mortgagors is unpaid, and the mortgagees foreclose; suppose a few estates, under such circumstances change hands, what of that? The land is still there, the mortgagors have received its full value or more, is there any thing unjust in requiring such mortgagors to surrender it? and is it not monstrously wicked to keep up, unnecessarily, a system of high prices to the impoverishment and ruin of the industrious, in order to maintain a few improvident mortgagors in possession of what is not their own?

The farmer's remedy and his only relief is a "Property-tax," in lieu and substitution of all others, and the yeomen of England will again be, as they formerly were, the boast and glory of their country. A. L.

December 12.

EXTRAORDINARY HEIFER.—A very fine heifer, of the short-horned breed, was slaughtered in Durlam, on Thursday week, by Mr. Cornwell, the butcher. She was an animal of singular beauty and symmetry, and was bred and fed by Mr. Hoult, of Rushlyford. That gentleman did not intend her for the butcher, but wished to keep her for a breeder. As she turned out barren, however, he reluctantly abandoned his original purpose. She was 4 years old, and though not fattened for the knife, her carcass is supposed to weigh upwards of 80 stones, of 14*lbs.* to the stone. We have seen some surprising animals which have been fed to very great weights; but we never beheld one which possessed greater propensity to fatten than this or greater capability to be rendered one of the most extraordinary of her species. Her carcass merits the attention of all amateurs in the science of stock-breeding, and particularly of the admirers of the short-horned kind. She was descended from the stock of C. Mason, Esq., of Chilton. We understand that clever and rising young artist, Mr. R. Robson, jun., is now engaged in painting a portrait of the animal—than which, though it may sound strangely to delicate ears, he could hardly have a fairer subject for his pencil.



**LETTER FROM A. G. SPIERS, ESQ. M. P.  
FOR PAISLEY, TO R. MONTGOMERY  
MARTIN, ESQ., SECRETARY TO THE  
ROYAL AGRICULTURAL ASSOCIA-  
TION.**

*Culcreuch, Dec. 13, 1835.*

Sir—I had the honour of receiving your circular, dated the 23d ult., inviting me to become a member of the Royal Agricultural Society, proposed to be instituted in London. If I could persuade myself that the sole objects of this projected institution were similar to those of the Highland Society of Scotland, *i. e.*, to improve the science and encourage the practice of agriculture itself, and generally those arts connected with it, then I would not hesitate to add my name to those of the noblemen and gentlemen who have already agreed to become members; but when I perceive, from the very origin of your Society (the political resolutions of the meeting of deputations at Aylesbury, on the 12th ult.), that the chief purpose for which it is founded is the combination of agriculturists “as a body” with a view to check and controul the Government of the country, and from your choice of a leader, in the person of a Noble Lord who has honestly, but, as I think, upon very erroneous grounds, stood forward as the champion of monopoly and restriction, I deem it my duty not merely to refrain from all connection with such a society, but also to state frankly that its principles are in my opinion hostile to the true interests of Britain, and, moreover, that under the guise of an agricultural association, its projectors have no other object in view than to create a powerful instrument for accomplishing the political ends of the Tory party.

I have long been of opinion that the present Corn Laws—prejudicial as they confessedly are to the commercial interests—are beneficial neither to landlord nor tenant; in other words, that high duties will not produce high prices—that to promote the interests of one class of the community at the expense of the rest is ultimately prejudicial to all—and hence, that the sooner every restriction and monopoly, and all taxation affecting the price of food, or that of the raw materials of our manufactures, are abolished the better. In making any changes, I am well aware that the varied and complicated interests of Britain render it necessary to proceed with great caution, yet I do not admit the impossibility of establishing the prosperity and welfare of the whole empire on a surer basis than it now stands, by a thorough revision of that restrictive system which has so long, in my opinion, cramped the energy of the nation and given to foreigners an undue advantage; and, therefore, I can give no support, directly or indirectly, to a society which is avowedly instituted for the purpose of exclusively protecting what are termed the agricultural interests, “of pressing those interests on Government or Parliament,” and of combining and directing the exertions of the agriculturists, “as a body;” “whenever any measure may be brought forward by Government, or the Legislature, which may be thought injurious to the prosperity of agriculture.” I am satisfied that the prosperity of the nation at large is the best foundation for the prosperity of the agricultural classes, and that it is a mischievous delusion to induce these classes to look for a rise of rents or of prices from any legislative measure; or, indeed, to look for a rise of rents or prices at all. Their true friends should encourage a better and more scientific system of tillage—a reduction of rents commensurate with the reduction of prices of commodities gene-

rally—as much relief from taxation, and an abrogation of all commercial restrictions—the prosperity of trade and commerce affording the surest prospect, by an increased consumption of agricultural produce, of improving the condition of the agriculturist. A landowner myself, I entertain generally the opinions of one of the most enlightened and soundest-thinking men in England on the Corn Laws, my Lord Fitzwilliam, and as his Lordship happens to be one of the largest landowners in the country he cannot surely be considered likely to promulgate opinions, or countenance doctrines inimical to that class with which he is peculiarly and intimately connected.

If I cannot consistently entertain the views, apart from politics, on which your proposed society is based, still less can I be a party to those views of a political nature, which, I am sorry to add, appear to me to have had a more predominant influence in the projection of the institution, than any conviction either of its necessity or its ultimate utility in removing agricultural distress. You have assembled, apparently at the bidding, at all events under the direction, of the Marquis of Chandos—a nobleman violently Conservative in his politics, hostile to the present Liberal Ministry, and a decided advocate of the Corn Laws, and of restrictions and monopolies. You have assumed the necessity of union for mutual protection and efficiency, based on the two following resolutions of the Aylesbury meeting, passed under the auspices of the same nobleman:—

“That heretofore all efforts to obtain from the Government, or from Parliament, efficient relief for agricultural distress have failed, and inquiry has twice been refused, owing to the divided state of the agricultural body and their want of co-operation.

“It is therefore advisable that the various agricultural associations now scattered throughout the kingdom, and hitherto powerless from want of union, do concentrate their forces and form a grand central society, or board of agriculture, in London.”

Your very first object is stated by yourselves to be protection to one class of interests, and the forcing of those interests on the notice of the Government or the Legislature; your next object is avowed to be the “calling forth combination and direction of the exertions of the agriculturists as a body;” to oppose Government, if thought necessary, or to force measures on its attention. Such appear to be your real and great aims. Merely subordinate to these objects is the protection of a hall, of meetings, and of a quarterly publication, &c., devoted to the agricultural interests, which appears in your prospectus. The only conclusion which I can draw from these premises is, that your association is really meant to be a Tory combination to overawe the Government and the Legislature—to force upon both any measure, however faulty in principle or pernicious in tendency, which may be calculated to serve Tory purposes—and, in short, to erect, as it were, a powerful Tory battery, from which all that appears to me really based on sound principle in politics, and all that is projected by a Liberal Administration for the good of the people—including, of course, the agricultural classes—may be most effectually assailed. Nothing, in my opinion, can be more objectionable in principle, or more pernicious in practice: and instead of giving the scheme that countenance and support which you claim for it, the duty of every Liberal politician ought to be to denounce and oppose it.

In conclusion, may I ask if the agriculturists can expect the other classes of the community to remain “disunited,” and therefore “powerless,” when

they see the agriculturists combining under the leading of noble Lords and Gentlemen? The example may be followed, and this projected society will have whatever credit may result from leading the way in that most pernicious consummation—placing one class in a state of enmity or war with another.—I have the honour to be, Sir, &c.

A. G. SPIERS.

### HOP DUTIES.

The following are extracts from the sixteenth report of the commissioners of Excise Inquiry:—

“From the inquiries which we have had opportunities of making on the subject, (the hop tax), we have reason to think that the arrangements made by the department for the charge and collection of this head of duty are well adapted to their object, whilst they have the recommendation of being carried into effect with the greatest degree of economy that the case will admit of.

“From the following return of the expense of its collection in each of the last three years, it will be seen that such expense amounts to a very small per centage on the revenue derived from a good crop.

“A return of the total amount of the expense of collection of the hop duty for the three years ending 5th January, 1835:—

	Amount.
Years ending Jan. 5	{ 1833.. £3,316 4 11½
	{ 1834.. 3,432 11 10½
	{ 1835.. 3,675 13 7

“G. A. COTTRELL,  
First General Accountant.  
Excise Office, London, 21st May, 1835.

“We should also state that the result of our inquiries has been to satisfy us that the hop-growers were not subject to any inconvenient interference by the officers of Excise in the process of their operations. For the purpose of further ascertaining the general feeling of the growers upon this subject, we directed a circular letter to be addressed to the several Members of Parliament representing counties in which hops were principally cultivated, requesting them to communicate with their constituents, and to acquaint us with the result of their inquiries. The answers returned to these communications will be found in the appendix; and it will appear from them that the growers are generally satisfied with the present arrangements for the collection of the duty, and are not desirous of any change either in the rate of duty or in the regulations under which it is charged.

“In referring, however, to this tendency to increase of cultivation, it should be borne in mind, that hops are included amongst those articles of general consumption, the supply of which is in a great degree confined to the home grower, by a customs duty amounting almost to a prohibition on their importation from foreign countries. We have not the means of ascertaining the extent to which the price of hops is thus artificially increased to the consumer in England, but whatever may be the extent, there can be no doubt that the addition as far as it goes, inflicts an injury on the public as consumers, by unnecessarily limiting the supply, and enhancing the cost of the article produced. The amount and effect of the customs duty on hops, though not the immediate object of our consideration, being thus incidentally brought under our notice, we have felt ourselves called upon to express our opinion, that the attempt in this, as in similar instances, to interfere

with the natural course of demand and supply, by a system of prohibitory duties, is opposed to the soundest principles of general policy. It may be added, that the high customs duty (3*l* 1*s* per cwt.) on hops, has not only the immediate effect to which we have above adverted, of raising unnecessarily, the price to the consumer, but also further operates to his disadvantage, by preventing him from taking the full benefit which might result from a reduction of the excise duty, since, under a system of monopoly such as that which is secured to the home grower by the prohibition against a foreign supply, there would be little prospect that a diminution of Excise duty would be followed by a corresponding diminution of price in the market; and, under these circumstances, there seems to be no reason why the revenue should not benefit by the present amount of duty, more especially as hops are comprised in that class of articles to which we have already referred in our seventh report, as being more fitting subjects for taxation than those which may be reckoned among useful manufactures.”

[Extract from a Speech of H. Handley, Esq.,  
M.P., taken from the BOSTON HERALD of  
Dec. 24, 1835.]

“He (Mr. Handley) now wished to call the attention to a subject, in which he conceived they were deeply interested, and on which he had long desired an opportunity of addressing them. He alluded to the ruinously low prices of tallow. (*Hear.*) He had frequently, when standing amongst the sheep-pens of Smithfield, been much struck with the trifling and disproportionate disparity in price between sheep weighing say 24*lbs*. per quarter, and others weighing 30*lbs*., the quality of meat being similar, and differing mainly in their relative degrees of fatness. The butcher now-a-days turned away from those points which heretofore first drew his attention, and the observation of the passer-by, on viewing such a show of Christmas meat as their shops had that day exhibited, was no longer one of admiration at the perfection to which the animal had been fed, but a sorrowful exclamation of “what waste!” (*Hear, hear.*) In fact, the fifth quarter, formerly denominated the butcher’s profit, no longer remunerated him; and as he could not, any more than other tradesmen, afford to purchase at a loss, the difference fell exclusively on the grazier. (*Cheers.*) It was well known to many of his friends, that this subject had occupied his attention during the last session of Parliament, and he had in the course of some observations he had made in the House of Commons, when the Chancellor of the Exchequer introduced his Budget, endeavoured to draw his attention to it. On communicating with a most intelligent gentleman connected with the manufacturers of soap, he found that they, so far from benefiting by our loss, were themselves in an unprosperous state, and complaining heavily of the prejudicial operation of the Excise upon their trade. He held in his hand a memorial from the soap manufacturers to the Lords Commissioners of the Treasury; they complained of the inefficiency and injustice of the system of Excise, which the illicit trader easily evades; of the obstacles which it presents to economy and improvement in the manufacture, to competition with the foreigner and an extended export trade, which the cheapness and abundance of the raw material in this country would otherwise enable them to effect. He would not trouble them with reading other parts of their memorial, which ably argued their case, but pass to their conclusion, in which he was sure they would readily concur; namely, to repeal the duties upon soap, and in great part to replenish the Exchequer by an increased duty upon the import of “the great raw materials of soap, tallow and palm oil.” (*Cheers.*) It appeared that the annual pro-

duction of tallow in the United Kingdom was 100,000 tons, and the imports from Russia 50,000, on which there was at present a duty of 3s 4d per cwt., which it was proposed to raise to 10s, or 10l per ton. It might be urged that we must calculate on some decrease in the Russian supply, but he apprehended not; for independent of his belief that they had hitherto made far more exorbitant profits at their expense than the amount of the proposed difference of duty, he had recently been informed from a Russian correspondence, that not only were they largely extending and improving their flocks, but that in some of the more remote provinces, where religious tenets forbade their eating the flesh of sheep, they were grazed in large quantities for their wool and tallow only. (*Hear, hear.*) Now, it was gratifying to him to believe that the grazier might here find some relief, at all events a palliative, not only not at the cost of any other British interest, but to the positive gain of the community at large, of the lower classes in particular, and at a loss to the revenue so trifling in amount as compared with the advantage gained, that none but the most niggardly and perverse Chancellor of the Exchequer, and such he was sure their present one was not, could possibly refuse. (*Laughter and cheers.*) The consumer, in the first place, would save the whole of the soap duties, which amounted he believed to 650,000l, and 50,000l cost of collection. The additional tallow duty, letting alone palm oil, on the quantity now imported may be estimated to yield from 300,000l to 350,000l, and though this would be eventually paid by the consumer, he could not complain, for he would gain on soap what he lost on candles, and the consumer of both articles was one and the same person. To the extent of this latter sum the grazier would be benefited, and it was to this sum he called upon them to urge their claims by petitions to the legislature. Political Economists might rail at the false principles of taxing the raw material. If, however, they estimated those philosophers at no higher rate than he did, they might let that pass. (*Loud cheers.*) As for the foreign trade, he saw nothing so congenial in Russian policy, nothing so consolatory in a Russian tariff as to desire to sacrifice at its shrine the interests of the British grazier. (*Cheers.*) It was not very long since they enacted an import duty of 12½ per cent, aimed at British goods, and the ruin of many would bear testimony to their former exclusion of our refined sugars. As respected Great Britain, and he looked no further, it was but the transfer of a tax, and supported by them, he would, both in Parliament and out of it, do his utmost to force it upon the favourable attention of the Chancellor of the Exchequer. (*Cheers.*)

[*Speech of Sir R. Price at the Hereford Agricultural Meeting.*]

SIR R. PRICE rose, and said that he had attended most carefully to the petition, during the time it was being read, and must say that it was moderately and respectfully worded, and that he should with pleasure present it, and give it his best support; but at the same time, although he trusted something might be done for them by the legislature, yet he should be wanting in candour if he shrunk from stating to the meeting, that he did not anticipate that any great good could result from it; and as he did not look forward himself for any substantial relief from parliament, he would not hold out to them any delusive hopes, which would only induce the landlords to ask, and the tenants to promise, higher rents than could be afforded, and would thus greatly increase the embarrassments under which both parties at present laboured. He (Sir Robert) firmly believed, that no legislative enactments could effectually remove the grievances which oppressed the landed interest; they were beyond the reach of government; they (the agriculturists) must therefore look to other means to better their condition. He was sorry that one

part of the petition hinted that parliament had been negligent of the agriculturists; he declared that from the time he (Sir R.) had first a seat in the House of Commons, the then government, and every succeeding government up to the present time, whether composed of Whigs or Tories, had ever shown an anxiety to promote the welfare of the landed interest of this country. Every administration, he believed, had had the will, but wanted the power, to remove the depression which, from time to time affected the agriculturist. There had been committees appointed to inquire into the causes of distress, and the most diligent investigations had taken place. He admitted that much had not been done in the way of that relief; but some salutary measures had passed, such as the repeal of the duties on windows, affecting tenants who rented up to 200l per year, which shewed the anxiety of parliament to lessen the burdens of the farmer. Sir Robert commented at some length, on the state of the currency, from the passing of the Bank Restriction Act, which he characterised as an act of injustice to the creditor, to the time of Sir R. Peel's bill, which on the other hand he considered as a measure of great hardship against the debtor. He deprecated any new attempt to interfere with that very difficult and dangerous question, which, without effecting any permanent good, would have the effect of unsettling all contracts, and only lead to a repetition of the hardship and injustice which he had previously described. He believed if the present government remained in office, or Sir R. Peel and his adherents came in, that all parties were agreed that there should be no more tampering with the currency. [A person in the room put a question to Sir Robert, relating to the fundholders, and stated that the great fundholder did not pay his fair proportion of taxes.] Sir R. Price said, it was a mistake to suppose that the fundholders did not bear an equal share of the public burdens, and it was also a mistake to put them down as the most wealthy part of the community, when the fact was, that the majority of the fundholders were persons in the humble and middle classes of society, such as widows, orphans, old decayed and retired tradesmen, with small annuities, depositors in saving's banks, and members of benefit societies, whose hard earnings had been put out on the faith of public credit. He considered it would be gross injustice to tax those persons exclusively, and leave mortgagees and others to escape, who were receiving interest in full. With respect to the great question before them—agricultural distress—he considered it useless to disguise the fact, that it must be dealt with at home, they must forget war prices, and the landlord and tenant must come to an equitable arrangement. (This observation was received with vehement cheering.) Sir Robert proceeded and said, that though he believed that the only thing that could effectually remove the evils under which they then laboured, was a fair adjustment of rents, yet there were some measures within the reach of the legislature, the enactment of which would tend to better the condition of the farmer. There was one instance in which the legislature may interfere with effect. He wished to see settled on equitable terms the long agitated title question. He trusted he should not be misunderstood; he did not wish to cast the slightest reproach on the clergy. He believed the great majority of them had been moderate, and had not taken all to which they were legally entitled. It was the system of which he spoke, a system which not only greatly interfered with the proper cultivation of the soil, but, from the uncertainty of the title laws, occasioned innumerable disputes between those who ought to live on the best terms. On a slight misunderstanding between the parties, if there were the least feeling of ill-will, an exchequer process was almost the inevitable consequence, and the utmost precaution of the one party was scarcely sufficient to guard against such an affliction. (*Cheers.*) He assured the meeting, that in any measure brought before parliament, calculated to ameliorate the condition of the agriculturist, he should, while he had the honour of a seat in the house, be always found at his post, giving it his best and most cordial support.—(*The hon. baronet resumed his seat amidst general applause.*)

HEREFORD AGRICULTURAL MEETING.—The following is a copy of the petition agreed to at the meeting:—

*“To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled.”*

“The humble petition of the owners and occupiers of land, and persons interested in the prosperity of agriculture, residing in the county of Hereford.

Sheweth—“That your petitioners belong to the most numerous and most peaceful class of His Majesty's subjects. That their patience has been unexampled and distress unparalleled, and which is daily increasing. That no effectual means have hitherto been taken by parliament to ascertain the real nature, and cause of their distress, now of nearly twenty years continuance. That it is impossible that evils of the magnitude under which your petitioners suffer, can have arisen without an adequate cause. Your petitioners, therefore, earnestly entreat your honourable house, in no spirit of party, but in the spirit of consulting the country's best and most lasting interests, and in strict justice to British agriculture, ‘the first of all its concerns’ at once to institute (by means of a select committee, chosen from your honourable house,) a bold and unflinching inquiry into the causes of agricultural distress, with a view to their amelioration. And your petitioners will ever pray.”

### THE AGRICULTURAL INTEREST.

TO THE FARMERS AND LANDOWNERS OF THE COUNTY OF  
HEREFORD.

Gentlemen,—Feeling a more than ordinary interest in the welfare of that truly valuable portion of this great country, known as “The Agricultural Interest,” I cannot refrain, whatever motives may be attributed to me, whether of presumption or otherwise, from offering a few remarks upon the proceedings and opinions of those Gentlemen who addressed you at your meeting on Wednesday. In the first place, allow me to congratulate you upon the formation of the petition; and that the individual, or more, who framed it, showed a wise and sound judgment in avoiding any allusion to the currency question, although it was strongly urged by Mr. Smythies; nay he, in the fulness of his wisdom, boldly, and in the most unqualified manner, declared that to Peel's bill the whole of the distress you are now and have been suffering was to be attributed, and that the repeal would, without any other proceeding, not only rescue you from your present difficulties, but place you in the sunshine of prosperity. It is more particularly to remove such an impression from your mind, and to guard you against this dangerous but too plausible nostrum, that has induced me to obtrude myself. I will not disguise from you that it was Peel's bill tended very much to reduce the price of agricultural produce, but not to the extent that some persons suppose; the long war in which we were engaged, coupled with a combination of extraordinary circumstances, caused the produce of land, of whatever denomination, to reach the most extravagant prices: with the conclusion of that war, prices immediately declined, but not so in proportion did rent, tithe, and other local taxation. Well and justly then did Sir Robert Price, with a manliness which scorned popularity at the expense of principle, declare to you that Parliament had not turned a deaf ear to your complaints, but that for real and substantial relief you must “look at home.” What, let me ask you, but that ruinous rotten system of paper currency, created an artificial state of property and society? What generated the high prices of land, and raised up between you and your landlord a middle man who, to gratify his employer, too often made you a stepping stone to increase his wealth and gratify his ambition; and I look upon it as one of the greatest evils you have now to contend with is the baneful system now pursued by landlords, backed by these worthy land-agents, as they term themselves, of discarding

tenants who, with industry and capital are compelled, to save themselves from ruin, to ask an abatement of rent; the notice is received, the paid agent is applied to, and without further hesitation an assurance is given that another tenant can be met with who will gladly take it and require no reduction. If such is the case now, how much more so would it be if you had a debased currency; every landowner's agent would be then regularly besieged with paper adventurers, and each parish haunted by the voracious tithemen; rents and tithes would soon be increased in proportion to the value of the produce; you would rarely see a piece of gold; the substance would be vanished, and we should have the horrid scenes of the year eighteen hundred and twenty-five again enacted.

Mr. Smythies told you that the reason that the manufacturers were so flourishing was, that the cotton spinners could purchase the raw material for a bill at two months, which the seller could discount, and the manufacturer, after he had passed it through his loom, could again sell for another bill, which he could discount at his banker's, and thus pay the original bill; one more extraordinary light seemed to have burst upon this gentleman, for in his second speech he told you, that the artisan was buying for sixpence a loaf which cost ninepence in production. Why, gentlemen, until within a very short period there was not a bank in either Liverpool or Manchester that issued a note; if he is not disposed to take Sir Thomas Lethbridge's dogmas for axioms, I ask, is there any reflecting portion of the community who is disposed to pay him a greater compliment? Fine speeches and Latin quotations do very well for display, but they are ill calculated to point out what you want to know, viz. a remedy to an admitted evil. I would here implore you to weigh well, and receive with great caution anything, however plausible, that comes from any individual, I care not what or who he may be, calculated to create an unfriendly feeling towards your manufacturing countrymen; depend upon it you are both links of one great chain, and that your permanent prosperity is beyond all doubt unalterably interwoven; he who dares to throw the firebrand of discord is a decided enemy to both. Away then with this worse than ille cant! leave the manufacturers and their two months bills to themselves; be united, and seek a remedy where it is to be found; be prepared to point out to that committee which you have petitioned the House of Commons to grant you, the true source of the depression of the wheat markets; you will find it in the not over produce of Ireland, but in the misgovernment for years of that unhappy country, which compels its inhabitants to dispose of that produce which they are rendered too poor to keep for themselves; misery and starvation stalk through the land while every port in England and Wales is filled with its produce. Call then upon your Legislators to give that country, so long neglected, a well digested Poor Law. Call upon them to burst the bonds of a desperate faction, that spreads its baneful influence like a pestilence over her fertile plains, and demand with more than common firmness the adjustment of the Tithe question, both in Ireland and in the land of your birth. Look then “at home;” point out to your landlords the evil of turning out an industrious tenant, merely because he can obtain another; tell him, for he ought to be told, or he is not worthy to be a possessor of an estate if he does not listen to reason, that your successor must be in the same state as yourself, or he must work out and impoverish the land. Let landlords dispense, if not altogether, in a great measure, with theoretical agents; let him meet as his forefathers did his tenantry at the audit day, and cultivate that good feeling which ought to exist between them. Away with the visionary schemes of men who, to gratify their ambition, have purchased land, and borrowed money to pay for it, and who would hail with joy any measure that would enable them to screw out of the hard earnings of their fellow creatures the means of satisfying their grasping ambition. With every sentiment of sincere attachment to your interest.

I am your obedient Servant,  
RICHARD DAVIES, Hop and Seed Merchant,  
Hereford, December, 24th, 1835.

## AGRICULTURAL DISTRESS.

We believe it may be asserted with confidence that amongst those who look to the legislature for the relief of agricultural distress, the propriety of the course pointed out by the Marquis of Chandos is becoming daily more apparent; and the probability is that in the next session a committee will be appointed to inquire into the causes of agricultural distress. Assuming that such will be the case, it may not be uninteresting to advert to the committee which made its report in 1833, and to inquire what circumstances have transpired during the last two years and a half, to induce a hope that another committee, which must have recourse to nearly the same channels for information, shall be enabled to devise an effective remedy for the distress of the *tenant farmer*. A great outcry is raised against the Whigs as being hostile to the agricultural interest, and the Tories are pointed out as the only *true friends of the farmer*. To this, as part of a system of electioneering tactics, there may be no objection, as upon such occasions any means will be resorted to which may be calculated to prejudice the cause of an opponent. But the great object to be kept in view is to prevent the *tenantry* from being deluded into the belief that any particular set of politicians *can legislate* so as to improve their condition. For the information of such of our readers as may have forgotten them, we subjoin the names of the individuals constituting the committee of 1833, which concluded a report in the following terms, "In conclusion, your committee avow their opinion that hopes of melioration in the condition of the landed interest rest rather on the cautious forbearance than on the active interposition of Parliament."

Lord Viscount Althorp  
 Sir James Graham  
 Lord John Russell  
 Sir Robert Peel  
 The Marquis of Chandos  
 Mr. Littleton  
 Sir Richard Vyvian  
 The Earl of Ormelie  
 Sir John Sebright  
 Mr. Baring  
 Mr. Dominick Brown  
 Sir John Dalrymple  
 Mr. Cayley  
 Sir Matthew White Ridley  
 Sir Charles Lemon  
 Mr. Robert Clive  
 Mr. More O'Ferrall  
 Sir Edward Knatchbull  
 Mr. Ashford Sanford

Mr. James Buller  
 Mr. Wolryche Whitmore  
 Mr. Mathias Attwood  
 Mr. Bennett  
 Mr. Mildmay  
 Lord Viscount Milton  
 Mr. Bethell  
 Mr. Gilbert Heathcote  
 Lord Viscount Howick  
 Mr. William Denison  
 Mr. Childers  
 Sir W. Brown Folkes  
 Mr. Brigstock  
 Lord Henniker  
 Mr. Roberts  
 The Earl of Kerry  
 Mr. John Murray  
 Mr. Stanley (Cheshire)

These gentlemen, most, if not all of them, principally interested, and some to a very large extent, in the prosperity of the agricultural interest, after having sat for a very long time, having examined a great number of witnesses, to whom they put nearly 13,000 questions, arrived at the conclusion that little if anything could be expected from the active interposition of Parliament. We are sensibly alive to the benefits resulting from a good

understanding between landlord and tenant, and the advantages which will accrue from a union for their mutual interests. But it must be for their *mutual* interests. Nothing short of a determination upon the part of landlords to reduce their rents to such a level as will enable their tenants to live, can possibly maintain that union. An investment in land cannot be viewed in a different light from an investment in any other species of property, and if from any accidental cause the value of the property becomes deteriorated, it is the owner, and not the occupier who must suffer the loss. The committee of 1833, a committee of landlords, who may be said to have been sitting for the purpose of inquiring how they could best advance their own interests, inasmuch as any improvement in the condition of the tenantry must produce that effect, did not point out one single measure of relief which was not before well known to every man who had inquired into the subject. It is stated in the report that "the poor-rate is heavier, the county-rate is heavier, the highway-rate has increased; and the evidence would lead to the conclusion that the outgoings of the farmer are generally larger than he can afford to pay during the present prices of agricultural produce, without a sacrifice of the profit on his capital which he is entitled to realize." The *tenant farmer*, if fairly dealt with, should not suffer from the increase of the rates; instead of being taken out of the profit on his capital, they should go in diminution of rent, being imposts which deteriorate the marketable value of the estate, either for sale or for letting. It is the peculiar nature of the business of the farmer, whose return for the investment of capital takes four, five, or six years, as it may be, to realise, which places him at the mercy of his landlord. There is one passage in the report of 1833, the production of which alone is well worth the time devoted to the subject by the committee, and which embraces the principle upon which alone we rest any hope of relief to the tenant farmer. It is the following:—"In Scotland, where rent and wages of labour are the only outgoings borne by the tenant, the farmer, on the whole, appears to have suffered less than in England from the fall of prices; and *Corn Rents*, which have lately come into more general use in that country, protect the tenantry under lease from the effects of a falling market: but the labourer in Scotland being paid principally in kind, and receiving only a small portion of his wages in money, has not gained so much as the labourer in England by the altered value although his nominal earnings have not been much reduced." Rent and labour, the only outgoings borne by the farmer in Scotland, being the one altogether and the other principally paid in kind, of course vary in value as the price of corn does, but it does not require a *larger number of bushels* to satisfy the landlord's claim for rent or to meet the wages of the labourer, in one year than another. If the committee for 1836 will but

adopt this principle, and endeavour to devise some means whereby rents may be regulated according to the value of produce, and the outgoings in the shape of tithes and rates of every kind removed from the shoulders of the tenant, it will go far to restore the prosperity of the working agriculturists.

## AGRICULTURAL DISTRESS.

TO THE EDITOR OF THE HEREFORD TIMES.

Sir,—I read, in your paper of last week, a quotation from a communication which was sent by me to the Board of Agriculture in the year 1816; and I am in consequence led to address the following observations to you:—I was in London in the preceding year, where I found almost every person, with whom I conversed upon the subject, strongly impressed with an opinion, that the great and immediate depression then anticipated in the price of agricultural produce of every kind, would be highly and immediately beneficial to every class of society, exclusive of the land and title owner and farmer; and all were astonished to find that I entertained a widely different opinion. Government had, during many years previous to that period, expended annually an enormous sum of money,—the rents of the land and title owners had been very high,—the farmer had been living in affluence,—and his labourers had been well paid,—trade of every description had been apparently flourishing,—and an enormous amount of taxation had been levied without difficulty: when the farmer suddenly became incapable of employing his labourers, except at comparatively very low wages, or to meet the demands of the land and title owner; the shop of the tradesman consequently became, to a great extent, suddenly deserted; and the manufacturer, exclusive of the comparatively few who then worked for a foreign market, soon felt the ill effects of this state of things. A kind of general paralysis followed, and the country sunk, as I foresaw it would—and as I in my turn was surprised that others did not generally foresee—into a state of great debility: from that state it has long ago perfectly recovered, and the distress of the present period is much less extensive; and as far as the interests of the farmer are concerned, capable of being considerably diminished, though certainly not by any interference of the Legislature, except to a very small extent. The former may be, and I think ought to be, exempted from all expenses in the repairs of turnpike roads; and those who require roads, upon which they can travel ten or twelve miles an hour, ought to pay for the benefits which they receive. The tithes ought to be commuted; but I have too good reason to fear that strong opposition will be made to any proper change of the present tithe laws, though certainly not by the labouring clergy. Poor laws ought also to be introduced into Ireland, to defend the English labourer, both in agriculture and manufacture, from competition with the starving wretches driven by famine from that oppressed and most unhappy country. *But a reduction of the amount of payments now claimed by the land and title owner, proportionate to the decreased value of agricultural produce, can alone efficiently relieve the distresses of the farmer.*

To this point I wish particularly to draw the attention of those who in their public speeches have expressed so much regard for the prosperity of the farmer, and feeling for his sufferings.

It has been objected, and may be objected, that a great many landowners, many of whom have heavy mortgages upon their estates, cannot afford to reduce their rents. This is, I fear, but too true, and to a fearful extent amongst every class of landowners; but I do not think that such persons are very likely to extricate themselves from existing difficulties, by having their estates beggared by beggared and ruined tenants. Government have gone far in excluding all corn of foreign growth, except under a heavy tax, in the

opinion of many too low, for the protection of the interests of the landowner; though not a shadow of doubt exists, or ever has existed, in my mind, *that the operation of the Corn Bill has been highly injurious to the farmer, in having caused him to raise much corn which has not repaid his expenses, and for which the increased consumption of animal food and potatoes has greatly diminished the demand.*

The English farmer has now to contend with the Irish farmer, or, perhaps, more properly, with the Irish landowner, for he appears to take almost every thing which the soil produces, except a few potatoes. The soil of that country is generally fertile, and a vast extent of it, which has not yet been cultivated, is capable, with a proper outlay of capital, of being cultivated with advantage. The wages of an Irish agricultural labourer, who has the good fortune to find employment through nearly the whole year, does not exceed 7d a day, without any portion either of meat or drink; and so great a number are usually without employment, and ready to work at any price to escape starvation, that in an account recently published by Mr. Inglis, of a journey through every part of Ireland, taken with the view of obtaining correct information respecting the state of that unhappy country, he states that a person offered to find two hundred day labourers, who would engage to work for four-pence a day. I particularly recommend Mr. Inglis's work to the attention of your readers. His feelings towards the Roman Catholic religion and priesthood are evidently hostile, and he represents the latter as intolerant bigots; but he gives them credit for strict attention to their duties, and as liberal to the distressed poor. Mr. Inglis has the credit, which I think he well deserves, of having written impartially, and his work was recommended to me by a gentleman: he is a clergyman of the Established Church, and a Tory.

The exports, both of corn and of animal food, from Ireland are increasing with accumulating rapidity, and steam vessels convey its produce, at a very small expense, to those seaports of England, which have the most ready communication with the manufacturing and populous districts, where the English agriculturist has to contend, upon very unequal terms, with the Irish.

Under the preceding circumstances, what can Government do? Appoint a committee to enquire into the causes of agricultural distress, and cause a long and protracted discussion in the House of Lords and Commons; and thereby be enabled to obtain very correct information of that which every person of common sense and information already knows, that many landowners are distressed owing to having outlived their incomes, and that many farmers, who have been compelled to sink a part of their capital in payments to the land and title owners, have become poor and distressed. The recently formed Agricultural Association may possibly succeed in leading the public to believe that the present administration have neglected doing their duty, and thereby cause them to lose the confidence of the farmer and freeholder, and their places. Whether the country would or would not be benefited by this, is a question into which I shall not enter; but it is sufficiently obvious, that the formation of an association of landowners and farmers, for the purpose openly enough avowed by some of its members, of causing the price of the necessaries of life to be raised, and their own revenues to be increased, cannot fail to cause the formation of hostile associations amongst the inhabitants of the great towns and manufacturing districts, where inimical feelings towards the land and title owners are already more than sufficiently strong. The rival manufactories which are rising in different parts of the continent of Europe, preclude the possibility of the receipt of very high wages by the English manufacturer, who therefore cannot continue to compete with his foreign opponents, unless he can obtain the necessaries of life on nearly as advantageous terms. The operative manufacturer therefore cannot fail to view without very hostile and I cannot avoid thinking very just hostile feelings, the agricultural association; which appears to me much better calculated to cause a revolution, than to relieve the distress of the

farmer, who, whatever may be the price of agricultural produce, may be oppressed by a bad landlord.

Some of your readers may perhaps be disposed to ask me, what I conceive ought to be done? I would recommend others to do that which, I believe, I have found it my own interest to do; and as my tenantry have done. I employed, many years ago, a very able and eminent land-surveyor, Mr. Tench of Bloomfield, who possessed alike my confidence and that of my tenants, and who was previously well acquainted with my property, to say what amount of rent each farmer would be able to pay, consistently with his living comfortably and properly; and I authorised Mr. Tench to promise on my part, that if they would cultivate their farms properly and highly under his instructions, by raising abundant green crops, and sowing no greater extent of ground with corn than they could properly manure, I would make any amount of deduction from their rents, in the event of a decrease in the price of agricultural produce, which he should think equitable. My estates, have been, and are highly cultivated, and afford a much larger supply of animal food, and at least as much corn, though that is grown upon a much less breadth of tillage; my tenantry are, I believe, all doing well, and some of them, who have been active and economical, have, I know, saved a good deal of money, bad as the times have been; and taking into consideration the improved annual value of my property, I confidently believe that I have obtained greater pecuniary advantages, than I could have obtained by acts of rapacity and oppression.—Your obedient servant,  
T. A. KNIGHT.

Downton, Dec. 18, 1835.

### ISLE OF SHEPPY AGRICULTURAL SOCIETY.

This Society held their first meeting on Monday, Dec. 21, when nineteen ploughs contended for three prizes, in a field belonging to Mr. Thomas Coveney, Norwood Farm, Eastchurch. The Judges, Isaac Wildish, Jun., James Fullagar, and J. H. Smith, Esqrs., awarded the 1st prize of 4l to (No. 9), — Tappenden, the servant of Mr. Edward Swift, of Minster; the 2nd of 2l 10s to (No. 16), — Carpenter, the servant of Mr. Edward Bigg, of Eastchurch; and the 3rd of 1l 5s to (No. 1), — Hart, also the servant of Mr. E. Biggs. The others were much commended, as was a Scotch swing plough, sent by Admiral Fleming; with all, the contest was keenly contended. The 1st prize of 2l, for bringing up and weaning the greatest quantity of lambs, was given to — Hodges, the shepherd of Mr. Matson, of Eastchurch; and the 2nd prize of 1l to J. Whitehead, shepherd to Mr. Burford, of Minster; a prize of 2l was given to J. Atkinson, a labourer, for having been a member of a benefit society thirty-eight years; Wm. Mantle, labourer, a prize of 1l 10s for twenty-four years' servitude on one farm, under Mr. R. Foord, of Eastchurch; to Richard Kennett, 30s for having brought up, creditably, ten children, besides having lost several in infancy; Thomas Marrant, a single man, 1l, for fourteen years' servitude under J. Batchelor, Esq., of Queenborough; Mary Knapps, 1l, for thirteen years' servitude under Mr. Lester, of Shererness; and to Edward Cripps, aged thirteen years, 10s, for one year's servitude under Mr. Henry Pym, of Leysdown. There was no candidate for the girl's prize under similar circumstances.

THE DINNER.—About sixty gentlemen sat down to dinner; Delamark Banks, Esq., chairman, supported by Admiral Hon. C. E. Fleming, C. White, Esq., — Sackett, Esq., John Pratt, Esq., Thomas Burford, Esq., and many other respectable gentlemen; John Matson, Esq., officiated as deputy chairman. On the cloth being removed, the prizes were delivered to the candidates, they were suitably addressed by the chairman, and the secretary G. B. Chambers, Esq., who encouraged the unsuccessful to go on perseveringly, that they might be successful next year; which business being concluded, the Chairman gave "the King," "the Queen,"

"the Princess Victoria, and the rest of the Royal Family." The health of Admiral Fleming having been given with three times three cheers, he rose and acknowledged the compliment, by assuring the company of his anxiety for the prosperity of the society, which he was convinced, from personal observation in Scotland, was capable of, and would, he had no doubt, do a great deal of good. He begged to propose the health of their excellent chairman, with the honours he was so justly entitled to. The toast having been drank most cordially, the Chairman assured them they should have his continued support, and that he would do every thing in his power for the Isle of Sheppy, and he was convinced there was not a man in the island he could not call his friend. Messrs. G. Morrison, Sackett, G. B. Chambers, and many other gentlemen addressed the meeting, describing the benefits such societies had been productive of in other places, and urging its being well followed up here. Many excellent songs were sung, and the company separated at a late hour, much delighted with the proceedings of the day.

### THE CENTRAL AGRICULTURAL SOCIETY.

SIR—The formation of a central agricultural society, I certainly hailed as a blessing to the depressed agriculturists, and expected that they would go into parliament the next session, firm and united, but I confess I am much disappointed with the first meeting. I always considered the society to be organized, not to be the tool of this party of quacks, or that, but to concentrate and unite the opinions and influence of the agriculturists. But contrary to all sound policy—all the expectations entertained by the farmers, instead of simply asking for parliamentary inquiry into the cause of agricultural distress, they begin to discuss that cause themselves! I do not admire this uncalled for throwing down the gauntlet of discord, the very first meeting, I hope that the currency question or any particular view of agricultural distress, will never again be mooted there, or we shall be just where we commenced. That the agricultural interest is terribly depressed, there can be no difference of opinion, and no party in the House of Commons can refuse a fair inquiry into its cause, if we ask for it unitedly, and unconnected with any other opinion, or pre-considered resolution. If it turns out to be the currency, then let that alteration be steadily asked for, *but not till then*. To be useful, the inquiry must be a *local one*: the commissioners must *come to the farmers'*, and practical persons must be examined, in preference to theoretical, or the object of the commission will be defeated by interested persons, for the farmers are too much in the habit of setting still to go to any considerable distance. An opportunity should be given all practical persons by attending at the principal market towns, and they must *compel the attendance and evidence* of the farmer's, to render it at all useful. All the evidence that is offered must be received, come from what quarter it may, and I should like the labourers also to be examined. Let all throw their mite of information into the scale, and let the best be selected and promptly acted upon.  
Your's &c.

A YORKSHIRE FARMER.

Dec. 30, 1835.

I calculate that the milk and butter of a cow will pay the rent of three acres of land of average quality, and, if she can be supported upon half an acre, there will be then two and a half acres out of every three rent free for you to make the most on, with plenty of manure to cultivate them, besides any profit that may be derived from pigs, poultry, &c., and it is from fully considering this that I have repeatedly asserted that every tenant on these estates might, if they followed the instructions given to them have their potatoes, their grain, and their pork for themselves, in place of selling the two latter to pay their rent as they have heretofore in many cases been obliged to do.—*Essay on the improvement to be made in the Cultivation of Small Farms, by Wm. Blucker, Esq.*

## ON THE CAUSE OF ROT IN SHEEP.

By MR. WILLIAM HOGG, Shepherd.

*(From the Quarterly Journal of Agriculture.)*

For more than half a century I have been engaged in the management of sheep. During that period I have not been inattentive to the misfortunes, the evils, and the ailments to which sheep are liable; and, amongst the rest, the rot has not a little occupied my attention; and with the greater assurance I can point out its symptoms, its progress, and termination, as I resided a long time on a farm where it was the prevailing disease, and from which, all who were connected with the concern dreaded the greatest annual loss.

Diseases of every kind among sheep, are very often raised or invigorated by improper management, and none is easier brought into existence by harsh treatment than the rot. Hence, in many cases of this disease, it is difficult to determine whether it proceeds from the morbid qualities of the soil, or from some adventitious event in the animal's life. The case first laid down considers it as inherent in the pasture; the causes afterwards noticed, the exciting reasons which immediately bring it into existence.

As distinct families of this animal, for several descents, assume the same shape and figure, in so far as this disease proceeds from a particular formation of the system, it may be reckoned hereditary; but the force and freedom with which the lungs heave, is the surest criterion to determine the absence or presence of this disorder; but still the original or predisposing cause exists in the qualities of the pasture; it is this which marks the peculiarities of the constitution, gives that flow of spirits which actuates the animal, and adjusts every movement in the system.

I lay it down as a position which need not be doubted, that pastures abounding with soft grossy nourishment dispose to this disorder. Grasses of this description spring early, rank and juicy, are eagerly eaten at that season, when all other green herbage is absent; the scarcity of verdure, and its own succulence, induce sheep to eat it very close to the surface; the soil vigorous and strong, pushes constantly forward more of the delicious sward; yet till late in the season, it never attains luxuriance, as the pasturing stock constantly keeps it bare. Other grasses firmer and more consistent in the blade at last arise, but are coarser, and in proportion as they are so they are rejected, and the soft tathy verdure still constitutes the principal part of the food; the animal's taste by degrees is perverted, it can relish no other food than this raw watery sustenance, which imparts no consistence or vigour to the muscular and more essential parts of the body; and all its influence is directed to the increase of the viscera, and every inability arising from constant repletion.

The stomach and bowels increasing to an extraordinary bulk, become an unmanageable weight, too weighty for the constituent parts to carry about with ease, or with that facility necessary to its thriving, and by degrees the animal assumes a bad shape, that is, the belly and hind quarters become heavy and lumpish; the fore quarters, low, narrow, and contracted. The lungs are obstructed in their full play, and very often one of their lobes adheres to the ribs; this farther impedes their motion; at every respiration the cells of that master organ are neither sufficiently filled nor emptied; for want of vital air the blood is tainted,

every extraneous humour increases, a general debility prevails, and symptoms of the rot appear.

But feeding on raw immature sustenance to such excess, and so constantly as sheep once habituated to it ordinarily do, operates another way for the introduction of this disease; the fluid contained in the unripe food engenders a good deal of serum in the abdomen, and even diffuses it through many parts of the body, and this not being a natural fluid, farther debilitates the constitution. The animal now lounges about on soft tathy spots. Immediately that general waste of body falls into a morbid tumour under the chin; but this is a late symptom. A violent diarrhoea then appears, when the animal dies.

But feeding on such unwholesome grass, to the exclusion of every other kind of food, always confines the animal on such low damp spots as produce it; while at every inspiration plenty of rank miasm is drawn in, which settles in the lungs, and loads their cells with a phlegmy viscid matter, which, with difficulty, is coughed up, especially when the animal is excited to motion. A consumption is then completely formed, for which as far as I know, or ever observed, there is no cure.

The softness and immaturity of the grasses, upon which the animal feeds, is the predisposing cause to this disorder: but where this is unaided by any accidental cause, though it has for a long while been preparing the system for the reception of this disorder, yet has as yet been unable to give existence to the disease itself, till some exciting cause occurs, which directly fixes it in the constitution; and this exciting cause proceeds either from the severity of the seasons or improper management.

It would be tedious, and in several cases almost impossible, minutely to explain how such a cause operates to produce this disorder; but it must be understood, that a certain degree of force or energy in every sheep's constitution is necessary to keep the functions of life moving in a healthy orderly manner; but when the regular operation of these is any ways impeded, by any cause whatever, the rot on soft tathy pastures is always the consequence. I shall briefly mention those belonging to the first class, viz. unpropitious seasons—heavy and protracted storms of snow—rapid transitions from frost to fresh, and *vice versa*. Hence the old adage—

“Mony frost an'mony thowe,  
Make mony weary rotten ewe.”

Wet seasons, especially wet autumns—immoderate falls of rain, cause drains, cleughs, and burns to overflow their natural boundaries; in such places, the soil never omits to send up a hasty flush of new grass, which is particularly detrimental to the health of the pasturing stock—a new braid of grass rising late in the autumn, or on fat places, even in the month of December. This also has a bad tendency, for it sinks the animal spirits.

The exciting causes of the rot from rude and ungentle usage may be classed as follow:—An immoderate heat, often got by severe dogging; I have several times known the lamb get this improper treatment, yet the constitution struggles on for three or four years, and yields to the rot at last—too long indulgence on flat grassy pasture which has been recently flooded—grazing on land which has been formerly, or is at the time, pastured by cattle. The rank grass of a deep green colour, springing from the spots on which they drop their dang, is vastly deleterious, as is also that kind which rises round the borders of



their foot-marks, after being soaked with stagnant water. This last cause affects not individuals, but whole parcels; and in general any misfortune or slight disease, which has for a while interrupted the animals thriving on all soft tathy pastures, is almost sure of introducing the rot.

I have read of instances, which were said to be well attested, of sheep rotting very hastily when transferred from their native hills in Scotland to rich English pasture. Except bad usage when taking them up, I can think of no other cause that can satisfy myself for this rapid waste of constitution; but let it always be remembered that a severe heat, which is often accompanied with other base usage, will break up the soundest constitution, especially at that important crisis, when it is removed to a pasture quite different in its qualities from that on which it was bred.

I have only to remark on this part of the subject, that the predisposing cause, by its long and uninterrupted influence, may produce this disorder; but its existence as a disease is oftener begun by the intervention of auxiliary causes.

The seeds of the disease may have struggled with the constitution for some seasons, but when the following external symptoms are exhibited, it is a plain declaration that all the ingredients necessary to constitute the rot are condensed and formed into disease, and that death will immediately ensue. I shall mention them in the order in which they generally appear.

About the latter end of February or beginning of March, the wool loses its healthy brown colour, becomes bleached and dead-like; then follows considerable prostration of strength; late in leaving the tathy spots, and early on them next morning—probably would not leave at all if not urged away by the shepherd; falls always back in the ranks when the shepherd moves them forward; a sullen, lustreless eye, looking steadily at the shepherd; an œdematous swelling under the chin. This last is a late symptom.

When dissected, the internal symptoms are; Lungs entirely wasted, often hanging like empty bladders to the base of the *trachea*; in some cases, when not so much wasted, the interior of each lobe full of tubercles; liver, in all cases that ever I saw, increased to an extraordinary weight and size, studded all over with hard white spots; cut any of its ducts, and the flukeworm issues out by hundreds, immersed in a bilious-like liquor. Several of this insect are also to be seen distributed among the other viscera; but I never saw them within any but the liver. These creatures I consider as the consequence, not the cause, of the rot; for they also exist in the livers of healthy sound sheep. Besides, the *fasciola*, of which this is a variety, is peculiar to the intestines of other animals; but their extraordinary increase, in cases of this kind, is no doubt owing to the diseased state of the liver, in which they multiply to such immense numbers, and their multitude and activity in it diminish the strength, and accelerate the death of the animal. In the quantity of tallow there is not much decrease, not near so much as the extreme debility before death would seem to announce. That which wraps the stomach and kidneys, as well as the fat dispersed through the system, has lost its suety qualities, and become a tough yellowish-coloured substance, altogether infusible by heat; in some more, in some less, but always a quantity of serum loose in the abdomen, in which the bowels float. Over the carcase are sundry yellowish spots, which are not unfrequent where fat should exist.

Excess of fluid existing in those varieties of grass,\* which the animal selects for its food, and a deficiency of those firm consistent varieties,† which are peculiarly adapted for strengthening the stomach, for animating and establishing the muscular system, I take to be the radical cause of this disorder; yet secondary or exciting causes may operate with such force and vigour as to unhinge the best constitution, and dissolve the best constructed parts, and, when this is done, the rot is always the consequence.

CHEESE.—MR. EDITOR,—For thirty long years have I been a dairy farmer, and nothing has so much surprised me as that people should have been so long finding out the real nature and poisonous quality of the ingredient commonly called Annatto, which is used to redden cheese. It is a fact known to most cheese makers, that the original intention of colouring cheese was to disguise its real quality: and it is all very well for those who cannot make good cheese, to use this stinking stuff, in order that one bad smell may counteract the other. All real good dairies of cheese are best when in their pure and unalloyed state—perfectly white—alike free from smell or colour. I have always been in the practice of making part of my dairy white and part coloured, but my dealers invariably tell me the white is best; yet, such is the force of custom or prejudice, that red cheese is still preferred in many places to white. It is pleasing to find, however, that where white cheese has been once introduced it is always preferred. I recollect reading, in my younger days, of one of the Spanish monarchs, who was ever so fearful of being poisoned, that he accustomed himself to taking a daily potion (in order to prevent the operation of a single dose of poison,) for so long, that at length he could not live without it. Will the cheese eating community take the hint?

A FARMER.

\* Among the kinds of grass which peculiarly dispose to this disease, may be mentioned the several kinds of meadow-grass, woolly soft grass (*Holcus lanatus*); but it must be recollected that those grasses are more or less noxious in proportion to the wetness of the season, or to the frequency with which they have been inundated by water; for this element, in its purest and most simple state, leaves a deleterious deposition in the grasses over which it floats. This is neither a sediment, nor, as far as the human sight can judge, can it be called an impurity. It is a very fine transparent colouring, nearly resembling the cobwebs which float through the air on a fine autumnal day. It was known, as well as its poisonous effects on sheep, to our forefathers, by the name of *Lace*. I have often noticed this sparkling appearance by the sides of wells, whose waters were newly emitted from the interior of the hill; and I once knew of a sheep which habituated itself to such unwholesome food completely rotten at a year and a half.

† That species of feeding which imparts a sufficient flow of spirits to the animal's consistence and activity to those parts adapted for motion, are the different heaths, ling, deer-hair, all the varieties of bent, &c. A due proportion of these, eaten along with soft and often unripe grasses, accelerates the digestion of every day's food, checks the preternatural increase of the viscera, and opposes the generation of vicious humours through the whole system.

### THE LATE SIR JOHN SINCLAIR, BART.

We cordially embrace the opportunity now afforded us to pay a tribute of respect to the memory of a fellow-citizen, so distinguished for his public services, so estimable for his private worth.

Sir John Sinclair was born at Thurso Castle, in the county of Caithness, on the 10th of May, 1754. He received the rudiments of a classical education at the High School of Edinburgh, and having carried on his studies at the Universities of Edinburgh and Glasgow, he completed them at Oxford. At Glasgow he was a favourite pupil of the celebrated Adam Smith, who admitted him to familiar intercourse, and from whose conversation, as well as lectures, he imbibed a taste for political inquiries.

On the two first occasions which called forth his talents as a writer, his object was to rouse the sinking energies of the country in times of great disaster, and embarrassment. At the close of the American war, the suspicion rapidly gained ground, under the influence of Dr. Price and Lord Stair, that the finances of the country were embarrassed beyond recovery, and that a national bankruptcy was inevitable. In reply to this dangerous assertion Sir John wrote a tract entitled *Thoughts on the State of our Finances*, which essentially contributed to restore the credit of Great Britain on the Continent. It "deserved letters of gold" was the strong language of the British Minister at the Hague, to express his sense of its importance. In 1780 Sir John wrote his vindication of the British navy. No great victories had for a long period been gained at sea, and so general was the panic spread by the expected junction of the French and Spanish fleets, that even Lord Mulgrave, though a Lord of the Admiralty, was understood to have been carried away by the torrent of despondency. In a pamphlet entitled *Thoughts on the Naval Strength of the British Empire*, Sir John Sinclair so effectually revived the public confidence, that Lord Mulgrave himself returned him thanks for a defence of our naval service so powerful and so well timed.

It was in the same year, 1780, that Sir John was first chosen to represent his native county: and, with the exception of a short interval he continued in the House of Commons till the year 1811, a period of above thirty years.

During a visit to the continent in 1785-6, Sir John's activity and perseverance enabled him to obtain information upon several points of great national utility; in particular on the art of coinage and on the manufacture of earthenware and of gunpowder. He described the last of these improvements to his friend Bishop Watson, Professor of Chymistry at Cambridge, before communicating it to the Board of Ordnance; and so important was the service rendered to the public, that the bishop in his memoirs represents his subordinate share in the transaction amongs this strongest claims to public gratitude.

Among the earliest and most laborious of Sir John Sinclair's literary undertakings was his *History of the Public Revenue, from the Remotest Eras to the Peace of Amiens*—a work which supplied the necessary data for effecting various improvements in our financial system, and especially for the introduction of the income-tax, without which the war could never have been brought to a successful issue.

It was on Sir John Sinclair's suggestion, that in 1793 Mr. Pitt proposed in Parliament the issue of Exchequer-bills for the relief of the commercial interest, then labouring under great distress. How soon and how effectually credit was restored by that politic measure, all merchants old enough to recollect the crisis must willingly, and many of them gratefully, acknowledge. Nor was Sir John's diligence in executing his plan inferior to his sagacity in devising it; much depended upon a large sum of money reaching Glasgow before a certain day; by applying every stimulus to all the agents he was enabled to accomplish this important object, contrary to the expectations of his most sanguine friends. Meeting the Prime Minister the same evening in the House of Commons, he began explaining to him his success, when Mr. Pitt interrupted him—"No, no,

you are too late for Glasgow; the money cannot go for two days."—"It is already gone," was Sir John's triumphant reply; "it went by the mail this afternoon." When the panic was over, he proposed to Mr. Pitt that immediate measures should be adopted for preventing the recurrence of the same disaster, and that the whole of our banking system should be reconsidered with a view to stop the over-issue of paper money, which he foresaw as the consequence of the Restriction Act. Mr. Pitt replied, that other subjects then required his whole attention; and thus, in spite of warning, the depreciation of the currency was suffered to proceed unchecked and uncontrolled.

The gratitude of the Minister was in proportion to the magnitude of the service. He desired Sir John to specify some favour to be conferred upon him by the Crown. Here was a valuable opportunity for gratifying personal interest or family ambition, but the boon which this true patriot solicited was a benefit to his country; he requested the support of Government to his intended proposition for the establishment of "a Board of Agriculture."

Over this great national institution of which the farming interest justly designate him "the founder," he, without emolument, presided for many years. To the exertions of the board this country is indebted, in a great degree, for its rapid progress in the art of husbandry. A spirit of enterprise and of invention was excited among the farming classes, and a dignity attached to agriculture which it never had before acquired. Agricultural associations suddenly sprung up on every side; reports were published, in fifty volumes octavo, describing accurately every county in the United Kingdom, and the substance of the information thus accumulated was digested, by Sir John himself, into his *Code of Agriculture*, a work which has now reached the fifth edition, has been reprinted in America, and translated into all the chief languages of Europe.

To illustrate the degree of energy diffused among the owners and occupiers of land by the labours of the Board of Agriculture, it will suffice for us to state, that during twenty years prior to the establishment of the board, though peace and war, prosperity and adversity, had alternately prevailed, the number of enclosure bills was only 749, whereas during the twenty years subsequent to its formation the number amounted to 1,833, giving an increase of 1,134 bills, or, according to the best calculations, 2,268,000 acres of additional cultivation. The necessity for these numerous and expensive bills might have been prevented by one comprehensive enactment, and Sir John at one time was able to inspire the two rival statesmen of those times with such a portion of his own zeal for agricultural, that both of them promised if the other consented, to attend a committee, of which Sir John was to be chairman, for the arrangement of a general enclosure bill. This was perhaps the only instance in which those inveterate opponents were prevailed upon to combine for one object. Unhappily, after the whole plan had been matured, Mr. Fox was persuaded by his friend Burke to withdraw his consent, and thus was frustrated a scheme of public usefulness at the only time when it appeared likely to succeed.

Among the labours undertaken by Sir John Sinclair, the most arduous, and perhaps the most successful, was *The Statistical Account of Scotland*. So little had the subject been at that time attended to, that the very term "statistics" was of his invention (see *Walker's Dictionary*.) No word then in existence could adequately express his practical adoption of the great Roman statesman's axiom, "Ad consilium de republica dandum, caput est nosse republicam." The work was first commenced in 1790; it was prosecuted uninterruptedly for seven years, during which a correspondence was carried on with all the clergy of the church of Scotland, amounting nearly to 1,000; and it was brought successfully to completion by the gradual publication of twenty-one thick octavo volumes, in which a separate account is given of every parish in North Britain. Attempts have been made in various parts of Europe, in Spain (1575), Sweden (1630), Germany, England, and especially in France, both under Louis

XIV., and even under the auspices of the Emperor Napoleon, to produce a work of the same kind, but nowhere hitherto with the least approach to the same success. Hence the celebrated Comte Haubrive, in his *Elements of Political Economy*, affirms, that "Scotland is the country in which the spirit of statistical research has been brought the nearest to perfection." The services of the Scottish clergy on this occasion were so strongly represented to the Crown by the honourable, the candid, and high-minded originator and conductor of their labours, that a royal grant of 2,000*l.* was presented to the society for the benefit of their families; and Parliamentary assistance to a large extent was afforded them for the augmentation of small livings. Sir John made no attempt to derive even a partial compensation by the sale of his performance, for the immense expenditure he had incurred, but generously made over the whole work to the abovementioned body. A new edition, under their direction, is now in progress. Let us hope that in the latter parts of it those acknowledgments will be made to the father of statistical philosophy which have hitherto been unaccountably withheld. We may remark that the successful efforts of an individual to anatomize society formed Lord Colchester's chief encouragement to propose that great national undertaking—the general census.

Along with his agricultural and statistical inquiries Sir John Sinclair from time to time exerted himself for the extension of the British fisheries. Having reason to believe that large quantities of herrings annually resorted to the coast of Caithness, he advanced a sum of money towards enabling certain enterprising individuals to decide the question. Their report was so favourable, that he prevailed upon the British Fishing Society to form a settlement in that country. In proof of his own disinterestedness, it may be noticed, that he made choice of a situation at a distance from his own property, and from which he could derive no personal advantage. By his exertions, also, a grant was procured of 7,500*l.* from the forfeited estates of Scotland towards the construction of a harbour in the Bay of Wick, where fishing vessels might receive protection. The fishery thus established and encouraged has ever since continued rising in importance. It employs, on the coast of Caithness alone, about 14,000 individuals; it produces annually above 150,000 barrels of herrings; and being since extended to the neighbouring country, has become the most productive fishery in Europe.

The more elderly friends of Sir John Sinclair will well remember seeing him, a tall athletic figure, in a military garb. His pretension to that costume was grounded on an important benefit to the public—that of raising, in 1794, a regiment of fencibles. Corps of that description were in general restricted to the defence of Scotland; but Sir John's first battalion, consisting of 600 men, served in England also; and the second, 1,000 strong, in Ireland. The latter corps furnished above 200 volunteers for the expedition to Egypt.

Among the measures recommended by Sir John Sinclair in Parliament, he always himself attached peculiar value to the grant for forming bridges, roads, and harbours throughout Scotland. The success of that measure may be attributed to a suggestion made by him, that no assistance should be granted by the public except in cases where the private parties interested became bound to pay one-half of the expense. It may be mentioned, to the honour of the Lord Register (Mr. William Dundas,) that although he moved in the House the appointment of a committee upon the subject, he uniformly attributed the "whole merit of that noble work of improvement to the right hon. baronet with whom the idea had originated."

To the other public services of Sir John Sinclair may be added, that he originated and long presided over the Society for the Improvement of British Wool, and introduced, at his own risk, into the north of Scotland, the Cheviot breed of sheep, of which so many millions have, in consequence, pastured on our Highland hills; that, by his speech and pamphlet in answer to the Bullion Committee, he prevented, during war, those embarrassments in our finances which it was afterwards admitted must inevitably have resulted from the pro-

posed return to cash payments; and which he constantly maintained would not only be destructive during war, but most impolitic and injurious even in time of peace, being thus as much opposed to the ruinous enhancement, as he had before been to the alarming depreciation of money; and lastly, that he suggested in the House of Commons the appointment of a committee on the famine in the Highlands, and by prevailing on them to waive the want of precedent, and grant relief without delay, he was the means of saving thousands from starvation.

The value of the various services above enumerated has been acknowledged from all quarters by the most competent judges. King George III. honoured him with friendly notice and correspondence, conferred upon him the dignity of a privy councillor, and is understood to have intended for him further marks of Royal favour. Various agricultural associations presented him with pieces of plate. Out of thirty-three counties in Scotland no less than twenty-five voted him their thanks. The magistrates of Thurso, the town adjoining his own residence, publicly and gratefully acknowledged "that amidst other pursuits of a more extensive tendency, the improvement of his native country had been the peculiar object of his care and attention;" and the freeholders of Caithness passed resolutions thanking him for having brought to a completion measures "which laid a solid foundation for the future prosperity of the county."

The reputation of Sir John Sinclair is not only British, but in the strictest sense European. Diplomas have been presented to him from societies, philosophical and agricultural, to an extent almost without example. They amount in all to twenty-five.

We have spoken of Sir John Sinclair as our fellow-townsmen, because his latter days have been spent among us in literary retirement. Occasionally he addressed the public upon subjects of political discussion, but his time was chiefly occupied in the intercourse of domestic life, or in preparation for a work which he had long projected on religion. He was of opinion that a treatise by a layman on the evidence of Christianity would be more favourably received, both at home and abroad, than the performance of a clergyman, and he resolved that, as his long life had been spent in the service of his country, his latter days should be devoted to his Redeemer and his God. In the work thus piously projected and zealously prosecuted he had made considerable progress, but its completion was anticipated by death. *Talia agentem atque meditantem mors prevenit.*

The funeral of the venerable baronet took place within the chapel of Holyrood Palace, on the 30th of December, and although it was the wish of the family that the ceremony should be strictly private, yet the Lord Provost, magistrates, and Town Council, in their robes, and a deputation from the Highland Society of Scotland, of which Sir John was a distinguished member, solicited permission to join the procession on its entering the precincts of the palace, an unexpected tribute of respect which the friends of the deceased, we believe, did not decline, and which strongly marks the feeling which his loss has occasioned in the metropolis of Scotland. Sir John is succeeded in his title and estates by Sir George Sinclair, the present member for Caithness.—*Edinburgh Advertiser.*

**CHURCH PROPERTY.**—Until a very few years ago, the entire parish of Wivliscombe, in Somersetshire, consisting of between 8,000 and 9,000 acres of good land, belonged to the bishoprick of Bath and Wells, and constituted the *far greater portion* of the revenue attached to that See. The late Bishop let the whole of the said property to his son for a term of three lives, at a *nominal* rent. The present Bishop, finding his revenue reduced to a mere trifle by this proceeding of his predecessor, agreed to make over the property *in fee* to the late Bishop's family, on condition that 40,000*l.* in money should be settled on the bishoprick; and an Act of Parliament passed through an **UNREFORMED** House of Commons and a **Tory House of Lords** enabling the parties to fulfil this engagement.—*Chronicle.*

EDUCATION AND CRIME.

The annual meeting of subscribers, teachers, and scholars of Friar's Mount Sunday School, took place at that establishment, in Church-street, Bethnal-green, on Monday evening, Under-Sheriff Pearson in the chair.

Several youths who are receiving education at the institution recited Scriptural and moral pieces with great effect, and particularly five boys, who had committed to memory, and who spoke large portions of the dialogue from "Pilgrim's Progress," with an emphasis and propriety which would have reflected no dishonour upon the scholars of half the boarding schools in London.

Mr. EDWARD WENTWORTH, the Superintendent of the school, gave a long account of its progress, from the time of its formation in 1804, by the Chairman's father which, on account of its simplicity, deserves to be recorded. From his statement it appeared that since its institution upwards of 20,000 Sunday school scholars had received their education there, besides 4,000 daily scholars, and that it had given birth to another establishment in the neighbourhood, which in 17 years, had received 14,000 Sunday and 3,000 day and infant scholars; so that since the late Mr. Pearson had reared Friar's Mount School, it had given the blessings of education to upwards of 40,000 of the youth of both sexes. There was still in the school above 1,300 children, who received their education at the hands of gratuitous teachers, and at an annual expense of 150*l.* (*Applause.*) Mr. Wentworth proposed a vote of thanks to the chairman.

Mr. PEARSON stated that to find himself, after so many years' absence, in the room where he had often assisted his late father in extending the blessings of education to the youth of that poor and populous district, raised emotions which he could scarcely describe. His attachment to the institution of Sunday schools was with him of so early an origin, that it must almost be termed one of the instincts of his nature; but his subsequent experience in life, so far from weakening the impression, had only convinced him, that of all the charities which adorned this charitable nation, Sunday schools were the most important, realizing the very characteristic of mercy, and blessing alike, those who gave and those who received. A great outcry had of late been raised in consequence of what had been termed the enormous increase of crime in the nation.—(*Hear, hear.*) He was sorry to find by the printed evidence taken before the committee of the Lords, that even the respectable chaplain of Cold Bath-fields prison was disposed to take a gloomy view of the influence of education upon the humble classes. It was true he drew a distinction between education which did, and education which did not inculcate good principles, but he (the chairman) contended that education in itself prepared the mind for the reception of good principles; and if the reverend chaplain had followed out his calculations to their natural results, he might have shown that though the quantity of education which he ascribed to the criminal population of the metropolis might not be sufficient to fortify them against the seductions of crime, it formed an excellent soil for the discipline and admonition, and instruction and reflection of a gaol to work upon; and that although the temptations from without might for a time overcome the power of resistance, yet, the "still small voice" of conscience lived within his bosom, and, exciting a determination to reform, exempted him from a recollection of crime, to a much larger extent than was the case of the brutally ignorant and uneducated part of the community.—(*Hear, hear.*) The evidence of the chaplain stated that out of 967 prisoners he examined in 1834, of those uneducated—i. e., not taught to read and write—

First imprisonment. . . . .	58	} 104
Second imprisonment. . . . .	46	
Those who could read and write—		
First imprisonment. . . . .	646	} 863
Second imprisonment. . . . .	217	

So that while 44 per cent. of the entirely uneducated criminals returned to the commission of crime, and were subjected to second imprisonment, only 25 per cent. of such criminals as could read and write returned again to the gaol; thus giving a balance of 19 per cent. in favour of the reformation of even the partially educated over the entirely uneducated portion of criminal society. In the progress of his official duties as Under-Sheriff he had had occasion to investigate the proportions which education and crime appeared to bear in relation to each other, and the statistical returns submitted to Parliament appeared to sustain some extraordinary inferences, showing that education, particularly Sunday school education, had considerable influence in diminishing crime where that species of instruction most generally prevailed. He was aware that arguments deduced from statistical tables were calculated to mislead unless carefully watched, and these tables, compiled as they were from returns made at different periods, must be rather taken as an approximation to accuracy than as an authenticated calculation upon which implicit reliance might be placed. Mr. Pearson then read the following statement:—

Wales . . . . .	England . . . . .	Middlesex . . . . .	York . . . . .	Lancaster . . . . .	Population in 1833.	Youth of both sexes from 5 to 15 years of age.	Number of day Scholars.	Number of Sunday Scholars.	Total of day and Sunday Scholars.	Proportion of persons committed for offences to the Population.
830,000	13,481,000	1,398,000	1,410,000	1,345,000		199,000	52,000	175,000	226,000	1 in 2,255
		335,000	338,000	322,000						
		92,000	112,000	91,000						
		1,375,000	1,77,000	198,000						
		2,510,000	289,000	289,000						
		1 in 681	1 in 998	1 in 572						

From the foregoing table it would appear that in Middlesex, where the proportion of crime to the population was greatest, the proportion of education to the juvenile population as related to two other counties of nearly similar population, was less than half. In Middlesex the proportion of crime to population was nearly double that of the rest of England, while her proportion of education to the juvenile population was less than one-half; and as to Wales there was scarcely a child in the principality without the means of education, and the proportion of crime in that country was out of all proportion small as compared with the nation at large. He then dwelt at great length upon the peculiar advantages of Sunday schools in large manufacturing and trading towns and cities. Mr. Cotton, the Ordinary of Newgate, who had filled that situation upwards of 20 years, had in conversation that day informed him that he kept a register of all the young offenders who entered the gaol of Newgate, and the re-

sult of strict inquiries enabled him to say that almost an incredible small number of children from Sunday schools were committed to that gaol, very much less than the proportion which those schools bore to the juvenile population of the metropolis. This afforded great encouragement to those who were engaged in the work to extend the sphere of their exertions, and would, he trusted, hold out an inducement to the Philanthropist to aid the benevolent and useful undertaking. It was a disgrace to the metropolitan county, the residence of Royalty, the seat of Government, the emporium of commerce, the residence of the noble and the rich, to give Sabbath instruction to no more than 52,000 children out of a population of 1,300,000, while with the same population York had 177,000, and Lancaster 198,000 scholars; and the poor, but virtuous principality of Wales, with scarcely more than double the population, maintained more than three times the number of Sunday school scholars in the metropolitan county. (*Cheering.*)

A subscription was then entered into by the visitors, and the meeting broke up.

### TITHES.

The following circular has been just issued from the Home-office, with the view, we conclude, of obtaining information for a measure to be brought forward in the approaching session. We have thought it right to publish the description of the information sought, as it may form in some degree an index to the character of the measures contemplated. It seems, however, next to impossible that any plan can be properly digested in sufficient time to be laid before parliament, and carried through, the rough materials of which are yet to be collected.

"The favour of an answer is requested to the following queries, which answer you will please fill in, in the columns on the other side, according as the tithe is taken in kind, or compounded for on view of the crop just before harvest; or compounded for by a money payment per acre; stating whether let on lease, and for what term, or only compounded from year to year. And if any part is subject to a modus, or composition real, or prescriptive payment, you will be pleased to state the quantity and culture of land so subject, and the amount per acre, under the proper column.

"1. Quere. The county in which the parish or estate is situate to which these queries apply.

"2. State the name of parish, and name and distance of market-town usually frequented for sale of produce.

"3. State how many acres does the said parish or estate contain, distinguishing the numbers of acres of arable, meadow, pasture, or sheep-walk, and wood land.

"4. Is the parish or estate the property of a lay or ecclesiastical proprietor?

"5. State, under the appropriate head on the other side, whether the tithe is taken in kind, or compounded for on view of each crop every year, or compounded for by an annual average money payment, or by a corn rent; and state, in either of the two last cases, whether on lease, or the payment varied from year to year.

"6. In the first case state the amount of average market value of the tithe so taken in kind during the last seven years, without any deduction whatsoever.

"7. State the scale of prices at which the above value is calculated.

"8. State whether the whole parish or estate is subject to rectorial and vicarial tithes, and if to vicarial tithes, state the amount in value of each description separately, and (if any) the quantity and

culture of land subject to any modus, composition real, or prescriptive payment, and the amount of any such payment per acre.

"9. If the tithe is taken in kind, state the expenses of collecting, thrashing, and carrying the same to market.

"10. State the amount of all rates and taxes to which such tithe is subject; and the two sums referred to in Nos. 9 and 10, when subtracted from the marketable value of the tithe, will give the net value of the tithe.

"11. If compounded for on view of each crop, state the average annual value of the whole of the produce during the last seven years, without any deduction whatsoever; and also the prices on which each value was calculated; the amount of such composition for such description of land, and whether the same has been made subject to rates; and if so, state the amount of such rates, which, deducted from the composition, will give the net value of the tithe. If you cannot answer such question in detail, give the whole composition.

"12. If under composition by a money payment, or on a corn rent for several years, or from year to year, state the amount of such composition, when such composition was made, and for what term.

"13. What was the scale of prices on which such composition was calculated?

"14. Is such composition received clear of all rates, or subject to them? and if the latter, state the amount of such rates, and the net value of such composition received by the tithe-owner."

CONSUMPTION OF FOOD, &c., IN LONDON.—The consumption of animal food in London is very great; but, to form a proper idea of its extent, the average weight, as well as the number of the animals, must be ascertained. About the year 1700, the average weight of the oxen sold in the London market was 370lbs; of calves, 50lbs; of sheep, 28lbs; and of lambs, 18lbs; the present average weight is, of oxen, 800lbs; of calves, 140lbs; of sheep, 80lbs; and of lambs, 50lbs. The number of oxen annually consumed in London, has been estimated at 110,000; calves, 50,000; sheep, 770,000; lambs, 250,000; hogs and pigs, 200,000; besides animals of other kinds. Smithfield is the principal market for the above articles; and the total value of butchers' meat sold there annually, is stated at 8,000,000*l.*—The quantity of fish consumed in the metropolis is comparatively small, on account of the high price which it generally bears; but this will probably be remedied, though some kinds of fish, at particular seasons, are cheap and of good quality. There are, on an average, annually brought to Billingsgate-market 2,500 cargoes of fish, of forty tons each, and about 20,000 tons by land carriage; in the whole 120,000 tons. The supply of poultry being inadequate to a general consumption, and the price consequently high, that article is mostly confined to the tables of the wealthy. Venison is sold chiefly by pastry-cooks, at a moderate rate, but the chief consumption, which is considerable, is among the gentry and proprietors of deer-parks. The annual consumption of wheat in London may be averaged at 900,000 quarters, each containing eight Winchester bushels; of porter and ale 2,000,000 barrels, each containing 36 gallons; spirits and compounds, 11,000,000 gallons; wines, 65,000 pipes; butter 21,000,000 lbs; and cheese, 26,000,000 lbs. The quantity of coals consumed is about 1,200,000 chaldrons of 36 bushels, or a ton and a half to each chaldron. About 9,600 cows are kept in the vicinity of London for supplying the inhabitants with milk, and they are supposed to yield 7,900,000 gallons every year; even this great quantity, however, is considerably increased by the dealers, who adulterate it by at least one-fourth with water before they serve their customers.

## DRAINING.

We mentioned in our paper two weeks ago, that a process of draining, by means of tapping or boring, was being carried into effect upon the lands of Rotchell, in the immediate neighbourhood of this town, which, in our opinion, was well worthy the attention of the agriculturists in this part of the country, where this system, though not perhaps altogether unknown, has not, till now, in so far as we are aware, been practised by any. From the time we first conversed with Mr. Robinson, the contractor, and observed his operations, we were of opinion that much good would result from the general adoption of the principle; and we are now fully convinced, that by the process of tapping in draining, there is more, both of national and individual wealth, than in almost any discovery connected with agriculture which has been made for a length of time. Already does the experiment at Rotchell show a surface sufficiently firm and dry for the plough, where, but till lately, the sportsman might well have calculated upon dislodging a snipe. It would perhaps be folly to say that all wet soils might be advantageously redeemed by this process. In some soils, running upon rock, the system is impracticable, and in others, though not altogether impracticable, the poverty of the soil, compared with the expense of draining it, would render the adoption of the system highly injudicious; but in our cold, deep lands, hitherto comparatively unproductive under tillage, from an excess of moisture, and in our deeper soiled bogs and meadows as yet unfit for the plough, there is not a doubt that this mode of draining would prove highly beneficial. We are aware that it has been said that meadow lands are nationally more productive or valuable in yielding hay, than they would be in tillage—as requiring no manure, and affording it to other soils; and to this argument we would have given much weight, if the country had been in the same state in which it was a few years ago, when almost none, except those in the immediate vicinity of towns, could give their lands a sufficient quantity of manure; but now that bone dust may easily be had every where, the value that attached to meadow hay, as yielding manure for other portions of the land, is not sufficient argument why a quantity of our very richest soils should yield only a scanty crop of hay, instead of a luxuriant crop of grain. Nor would the improvement to the atmosphere, in this cold climate, by the removal of the superabundant moisture, be a trifling consideration in the benefits produced. We have said that in some soils running upon rock, the system of draining by boring is impracticable, and hence, in many districts in Galloway, where the soil lies chiefly upon whinstone or granite, or some other species not less easily operated upon, we despair of its being of much avail; but where the spring ooses from freestone, as in many parts of Dumfriesshire, the system is not only not impracticable, but easily followed out. The freestone is easily bored; and, when the spring is caught, it is easily conducted along the rock by means of a small groove, cut in the rock, and covered with flat tiles or slate. Mr. Robinson mentioned to us that he had often been very successful in draining of this description. The great advantage, however, in the system of draining recommended, is in grounds where the springs run along a porous stratum at a considerable depth from the surface, having a stiff or retentive soil above; and as our last notice was rather hurried, we will now endeavour to be a little more particular in our description of the mode by which the system is carried into effect. Having, as we said, cut a ditch of moderate depth along the most hollow part of the ground, which it is wished should be drained, following every curvature which the most hollow part requires, the person in charge of the work is enabled, from one of three circumstances, or rather, perhaps, from a combination of the whole, to ascertain whether boring is requisite. He will see whether the surface along either or both sides of the drain is becoming dry,—whether the water is oosing from the sides or bottom of the drain, and whether the under part of the soil excavated is of such a porous nature as properly to conduct or draw off a spring. If any of

these observations are not satisfactory, and if deeper cutting is not convenient, or too expensive, then tapping or boring is applied; and if this is not successful in one spot, it must be persevered in till the spring is caught. Should the spring, when caught, seem too much for one bore, which is seldom the case, it is only requisite to make another bore near to it, in the line from which the spring proceeds. Having succeeded thus far, it is the business of the drainer to mark, in the course of a day or two, how far from the centre drain the ground is dry where it was wet or moist before, and carrying a drain from the centre drain towards the spot where the moisture of the surface shows that the spring is not yet properly carried off, it is his business again to cut along the seeming line of the spring, in the hope of catching it, which, if it does by common cutting, is so far fortunate; but if he does not, he then taps or bores till he catches the spring in this place also, and thus proceeds towards the higher parts of the grounds to be drained, until he has completed his work. The whole is then laid with tiles and covered in, and rich and flowing crops are soon found, where before, inferior crops, or sour and scanty grasses were the only productions. In most cases it is not convenient, and not necessary, to procure any other soil to fill up the drains than that which has been excavated; but in the centre drain of stiff retentive soils, much should be done to procure a more porous substance to lay upon the tiles, otherwise much injury may be done to the hollow part of the field—more especially when it is ridged across the drain—from the lodgment of heavy falls of rain. This will not be severely felt immediately after draining, as all soils when once acted upon require a portion of time to assume their original solidity. That original solidity will, however, sooner or later, according to the nature of the soil, be attained; and if the tiles, which, generally, in the centre drain require to be pretty deep, be covered three or four feet, or perhaps more, with a retentive soil, it is unreasonable to expect that the drain can properly draw off the water from above. In the old system of draining, the precaution recommended was seldom necessary, as the drains were generally filled with stone sufficiently near to the surface to prevent the injury we have pointed out; and where a porous soil cannot conveniently be obtained, and stones are plenty, it would be a good practice to fill up the drain to a given height with stones; but this would require to be done with great caution, otherwise the tiles would be apt to be so much injured as nearly to destroy the whole benefit of the operation. We are fully sensible that in the remarks we have made we have not nearly exhausted the subject they embrace; but if we have said enough to draw attention to the theory of draining by tapping, and to induce our agriculturists to put it in practice, our object in writing is completely gained. In our previous notice we recommended a visit to Mr. Robinson, at Rotchell—a recommendation we cannot at present give, as Mr. R. is not now there at work; but we understand it is his intention to return in the spring to carry on his system of draining on a scale more extensive than he has yet done on their lands.—*Dumfries Herald.*

Mr. Shillito, of Barrow, near this town, has been for some time past feeding his pigs with frumenty, or wheat crushed in a mill constructed for that purpose, and mixed with hot water, adding one bushel of polard to six of corn. Wheat weighing 17½ stone net, at 14s per coomb, which is the utmost that could be made of it, is the cheapest article that can be used for fattening either pigs or other stock, and there is no doubt that the stock on hand will be greatly reduced in this manner. Mr. Beck, of Lexham, in default of turnips, has this year steamed the tops of his mangel wurzel for fattening beasts, and found that they were devoured with the greatest avidity. It is found, also, that steaming hay is very beneficial, particularly if it be at all damaged in getting up, in which case the process gives it almost the freshness and sweetness of the best new-mown hay.—*Bury Post.*

## SHERIFF COURT OF FORFARSHIRE.

DAVID KYD, TENANT OF BONNYTON OF INVERARITY, v.  
DAVID SCOTT, TENANT OF KNOX OF ARBRILOT.

This is a case involving a question of importance to agriculturists and seedsmen.

In the spring of 1831 the defender sold and delivered to the pursuer eight bolls of perennial rye-grass seed, which Mr. Scott had obtained from the previous year's crop of a part of his farm. The defender retained for his own use a similar quantity of the same parcel of seed to be sown on his own farm of Knox. The seed which the pursuer so purchased was, in spring 1831, sown by him upon three divisions of his farm of Bonnyton; and upon two separate divisions he sowed another quality of perennial rye-grass seed obtained by him from a merchant in Dundee. The defender also the same spring sowed the grass-seed retained by him upon two divisions of his farm of Knox.

In the season of 1832 the whole of the rye-grass seeds so sown, both on the pursuer's and the defender's farms, yielded a good first year's crop, but the result the second year was very dissimilar and extraordinary. On the defender's farm the second year's crop of rye-grass, season 1833, was an excellent one, so much so, that in the spring of the following year there remained a sufficient bottom of rye-grass to have yielded a third crop; and in the season of 1834 the rye-grass sprung thick, and was in a shot state among the corn crop over all the field. On the pursuer's farm, however, the second year's crop of rye-grass from the defender's seed, proved a complete failure—nothing but weeds and natural grasses having appeared, while the crop from the rye-grass seed obtained by the pursuer from Dundee, and sown in the same soil and situation, was a fair average crop. The pursuer in consequence raised the present action of damages against the defender, concluding for 21*l.*, as the estimated loss which the pursuer had sustained in consequence of the defender's seeds having failed in yielding him a second crop, *i. e.* from these being *annual* instead of *perennial*, as represented and warranted when purchased.

In defence, it was averred that the seed sold was the produce of a field which had yielded three successive crops of rye-grass; and that the quantity of the same parcel of seed which the defender had sown on his own farm had produced two good crops in succession; and he therefore maintained that the seed delivered to the pursuer was *clearly of perennial quality*, and that he, the defender, was not responsible for the *after* failure of the seed which the pursuer received from him, but that such failure was to be imputed to the pursuer's own management, and to the inadaptation of the soil of his farm to second year's grass and other causes.

The parties joined issue upon these facts and pleas; a voluminous proof was led for both parties, and joint memorials on that proof were lodged, upon advising which, the Sheriff Substitute, with concurrence of Sheriff L'Amey pronounced the following judgment on the merits, assailing the defender, and finding him entitled to expenses subject to modification.

*Note by the Sheriff.*—The Sheriff is inclined to hold that the seeds were sold as perennial grass seeds.—This is not only explicitly admitted in the defences (while the relevancy of the subsequent attempt to retract or modify that admission may be questioned) but the price asked and paid could only apply to perennial grass seed.

But the main question is, whether, in point of fact the seeds sold and delivered to the pursuer were perennial or only annual rye-grass seeds. Now, the Sheriff is decidedly of opinion that the seeds were perennial; for it is clearly proved that they were part of the *same parcel or crop which the defender sowed on his lands, and which produced a second crop, with an appearance of a third one*; and further, that the defender had no other grass seeds on his farm; but unless they had been perennial no second crop could possibly have been produced. There is thus decisive proof that the seeds sold and delivered to the pursuer were perennial.

The pursuer's case consists of a proof that the seeds

which he sowed produced only one crop; the conclusion drawn from that circumstance being, that the seeds which he received from the defender were not perennial. But the fact that the pursuer had no second crop is by no means decisive, seeing that it has been satisfactorily proved that the seeds which he used were part of the same parcel which the defender sowed, *and which yielded a second crop*, thereby affording demonstrations that the seed was of the description represented. What may have been the true cause of the failure of a second crop in the pursuer's case it may be difficult to trace with an approach to accuracy. But if the seed delivered was truly of the description bargained for, the defender is not answerable for the failure. Various causes why no second crop was obtained have been assigned for the defender, and attempted to be proved, and in particular, that the seed which he delivered did yield a second crop, and that the seeds which failed were got from a different quarter. But whatever may be thought of the proof on that head, yet assuming that the failure arose from the seeds furnished by the defender, various physical causes have been assigned by the defender to account for the failure of a second crop, for which assuredly the defender would not be answerable: *viz.* the improper manner in which the seeds were kept before being used; that they were sown too sparingly; that the soil in which they were sown was wet or otherwise unfavourable, and the exposure cold; and, that the land was ploughed up too early, and before it could be well ascertained whether a second crop might not have been produced. But whether these, or any of them, are proved and shall be held conclusive, or whatever other physical cause may be assigned for the failure of a second crop on the pursuer's land, it cannot affect the defender, if the same parcel of seed, when used on the defender's farm, yielded a second crop—a fact of which there can be no doubt whatever.

The Sheriff does not propose to award full expenses to the defender though the successful party. The case made out by the pursuer, until it was met by the defendant's proof, might have been held to be conclusive, and the pursuer could not, perhaps, be sufficiently aware of the strength of the defender's case, till after the proof was led. It cannot, therefore, be said that the pursuer acted very rashly, on the contrary, the defender required to make out a case to meet and overcome the facts adduced by the pursuer, and for that reason may not be entitled to full expenses. On the other hand, the defender has been successful; and, as the same seeds, if properly used and sown in a favourable situation of the farm, must, in all probability have produced a second crop, the defender is entitled to expenses under modification.

**Whisky.**—The sale of Scotch whisky is virtually interdicted in England. The rate of additional duty of 5s per gallon which is exacted on all Scotch spirits imported into England is at least equal to the value of the commodity, exclusive of duty; and so high an impost amounts to a practical prohibition on the export of Scotch whisky to the English market, the best to which it could be sent, and thus operates most injuriously to the interests of agriculture, by excluding a great portion of the produce from an important department of the commerce in grain. It is well known that this exclusion of Scotch spirits from the English market was a concession to the West Indian interest. The largest distillers in Scotland too had an interest in limiting competition. To favour these two classes the whole agricultural interest of Scotland have been cast into the shade and disregarded, and their industry has been cramped, and the comforts and morals of a large portion of the community have been narrowed and seriously damaged. What we contend for is, an equalization of the duty on British spirits throughout the whole extent of the three kingdoms; in other words, a reduction of the duty on whisky consumed in England to what it is in Scotland or Ireland, whether distilled in Scotland, in England, or in Ireland.—*Berwick Advertiser.*

## AGRICULTURAL DISTRESS.

TO THE EDITOR OF THE STANDARD.

In the consideration of this important question, a brief review of the erroneous theories and opinions which prevail, will enable us more clearly to trace the causes, and to propose the means of lessening the existing evil,

Some are of opinion that if tithes were done away with, farmers would prosper. Were all farms subject to tithes, it might be difficult to combat this opinion; but its refutation is clearly shown by the simple fact, that complaints of depression are by no means confined to the farmers who pay tithes, but equally apply to those who cultivate tithe-free land. That a commutation is desirable is so obvious as to be generally admitted; but those who fancy that a commutation, or even the annihilation, of tithes would now give prosperity to agriculture, grasp at a delusive shadow.

Foreign corn having been long virtually excluded from British markets, establishes the fact, that foreign competition is not the cause, and also that the existing corn laws are practically effective; but it must be admitted as a great hardship to the English farmer, that the produce of Ireland, where labour is comparatively so low, poor-rates unknown, and taxes so light, should be admitted, without any countervailing duty, proportioned to the unequal charges of production.

Various changes in the currency are proposed. Some advocate the more abundant issue of paper, others a change from gold to silver, as the standard value. Conflicting as opinions are upon the subject, one thing is certain, that every change in the currency has hitherto been accompanied by disastrous events; nor can it be denied that money is abundant, at a reasonable rate of interest, to all those who can give good security.

Others have suggested, as a remedy for the evil, a reduction of the land tax; but it is so manifest that farmers ascertain what taxes they will have to pay, and agree for the rent accordingly, that it would be a waste of time to proceed with this part of the subject in discussion.

Having thus excluded some of those erroneous theories and opinions, from the indulgence of which nothing but disappointment can ensue, let us proceed to the main question, agricultural distress; or, in other words, the insufficiency of farming produce to pay the charges of production, the consequent sinking of the farmer's capital, and his inability to employ or to pay the labourers required to cultivate his farm. Iron, indigo, cotton, sugar, can each be sold in any quantity at prices materially advanced; not so with wheat. Why this difference? Simply because for the former articles the demand has exceeded the supply; for wheat the supply has fully met, and probably exceeded, the demand.

Various causes operate to lessen the consumption of grain. To meet the extraordinary demand, and consequent extravagant prices, during the war, a great extent of inferior land was brought into tillage; the tillage remains, but the navy and army, which consumed the produce, are dwindled into comparative non-existence. In the mean-time, the vast increase of potatoes as a substitute for corn; of turnips, mangel-wurzel, &c. as a preparative for grain, instead of the unproductive fallows which formerly prevailed; of tea, coffee, and sugar, instead of milk and oatmeal; the vast increase of canal navigation, enabling one horse to do the work of twenty; the substitution of steam power in the place of horse and manual labour; the continuance of the tax on malt, which the improvidence of ministers in the mismanagement of the national revenue still renders necessary—these circumstances, together with a long succession of favourable harvests, sufficiently explain the heaviness of the market for agricultural produce.

But are there no other causes for farming depression within the power of government to alleviate? "A Farmer's Friend," in the *Standard* of the 17th instant, sensibly proposes to "get rid of the tax on soap, and to

put the tax on tallow." This may not accord with the prevailing folly of free trade, but it would enable many farmers to abandon the ruinous system of ploughing bad land; by the inevitable result of cause and effect it would raise the price of grain and lower that of butcher's meat; and it would lessen the expense of collecting the revenue, besides getting rid of the annoyance and frauds attending the excise on soap.

There is also another boon, which, if granted, would operate immediately and extensively in favour of the agricultural interest. Abolish the post-horse duty, and an increased demand for horses, and consequently for hay, corn, and pasturage, would immediately ensue; the breeding of horses would become an important object to farmers in remote districts, whilst those in the vicinity of towns, or public roads, would find a new and beneficial remuneration by hiring out their horses. The post-horse duty restrains the public from the free use of their horses, and the farming of it (a mode of collection notoriously iniquitous, despotic, and unconstitutional) tends to emigration, and materially checks travelling in Great Britain. In repealing this odious impost, the benefit will not be confined to the farmer, but it will essentially add to the comfort and convenience of the middle classes of society. The gross revenue, which, as stated in yesterday's *Standard*, amounts in England, Scotland, and Wales, only to 231,020*l.*, is such a mere trifle, compared with the mass of fraud and oppression it occasions, as not to deserve a moment's hesitation; besides, it may reasonably be expected, that by the indirect taxation it would occasion, added to the tax on additional horses, the apparent deficit would be amply supplied.

Dec. 31, 1835.

AMICUS ANGLIÆ.

TO THE EDITOR OF THE MARK  
LANE EXPRESS.

Sir,—I remember to have seen in some reports of agricultural proceedings, held in various places during the past summer, that a gentleman had discovered a preparation for the *Straining in Sheep in Lambing*. I cannot find any of the papers referring to it. I am therefore ignorant to whom inquiry is to be made upon the subject, but as the matter is one of public interest, I have no doubt this application to you will draw the attention of some of your numerous readers who will give me the required information. As the lambing season is near approaching, I shall be glad to know where it is to be procured, that myself as well as other lamb-growers who have heard of it, may have some in readiness, in case we should experience so unfortunate a season as many of us did last year; it will be most desirable, indeed, to be in possession of any thing to prevent such severe losses as occurred last season. Relying upon your readiness to afford information to your agricultural friends,—I am, your obedient servant,

A SUBSCRIBER.

Grantham, Lincoln, Jan. 6, 1836.

STEAM CONVEYANCE.—Not only our agriculturists, but our nurserymen and seedsmen, are likely to receive very considerable advantages from the facilities of steam conveyance. As a proof of this, we may mention that one of our active townsmen lately shipped in the *Nithsdale* not less than 400,000 plants for the north-west of England or Wales; and that this was but one of many shipments of a similar kind which he or others have made. Sending plants from this district to England or Wales is not, we admit, entirely the result of the establishment of conveyance by steam, as our ordinary traders have for many years been more or less employed for this purpose; but, from the great delay to which ordinary traders are liable, it is evident that the communication by the steamers gives a security for the freshness of the plants upon their arrival which cannot otherwise be depended upon. The steamers also afford



a facility and despatch of communication to the seedsmen hitherto unknown. In illustration of this we may mention that the individual to whom we have referred lately wrote a letter to Liverpool for seeds upon a Monday, and received his order in sufficient time to vend a considerable quantity of them on the first Wednesday following.—*Dumfries Herald*.

## AGRICULTURAL DISTRESS.

TO THE MARQUIS OF CHANDOS, M. P.

(From the Morning Herald.)

Precisely as I foretold, my Lord Marquis, the landed interest have again had their meetings and their talkings, their eatings and their drinkings, but without arriving at any determinate conclusion, or any fixed principle of co-operation. Each seemed to have his own particular nostrum, while all is left to the "wisdom of Parliament," that same wisdom which has again and again assembled for a similar purpose, particularly two years since, when it was occupied many weeks, and finally separated without being able to draw up a report, or daring to give the real cause of the distress, although obvious to every member. The same result will follow in the ensuing Session, unless some master mind has the moral courage to make a stand and preserve the country from convulsion. However, we shall see. Patience, you know, my Lord, is a great virtue. "Oh but," I hear your Lordship exclaim, "you have forgotten that a 'Royal (?) Central Agricultural Association' has been formed, and a Committee of forty appointed." I am truly sorry such a proceeding should have taken place, and I was forcibly struck with the observations of Mr. Sheldon, M. P., on the subject of this exclusive Association. As regards the word "Central," its very name is odious; it savours of all the undigested pranks and projects of the Scotch philosophers, the political economists, and the detested and detestable Poor Law Amendment Act. I greatly mistake if this Association is not illegal; I am satisfied it is unconstitutional. Both the Statute-book and the records of the King's Bench furnish proofs that a combination or conspiracy of few or many, to raise the price of the necessities of life, is an indictable offence. Trials, convictions, and punishments have taken place for such practices. This association may and will embarrass any Government; but it will never obtain relief, or enforce an alteration in the currency if the members of the Government wish to retain their heads upon their shoulders. It is this conviction which makes the commercial and manufacturing interests (with the King of Prussia at their head) behold the formation of the Association with feelings of indifference, perhaps of contempt. With regard to the Committee of forty, the number will seem ominous and very *Ali-Baba-ish* to those who have read the "Arabian Nights' Entertainments." I wish they may not obtain the name of "The Forty Thieves." Not only is the name of this Association objectionable, but its initiatory proceedings were equally so—the adoption of the appellation "Royal" without permission—the very improper and unauthorised application by one of the self-elected Secretaries to the King for his individual patronage of an association which may terminate in setting one class of the King's subjects against the other—an application answered most properly by Sir Herbert Taylor, in terms which did great credit to his Majesty's foresight and discernment—the petition for apartments in our tax-eating dens—the *exclusiveness* evinced throughout their proceedings—in short, the whole thing savours of Whitehall jobbery. In order to obtain redress of grievances for all the suffering classes of the country, the subject must be taken up in a very different manner, and I think by very different people. This exclusive Central Association will but mystify the premises and probably serve the wishes of Government by embroiling conflicting interests in an open affray.

But, my Lord, the general prevalence of agricultural distress is by no means an admitted fact. I heard it re-

cently disputed myself at a very large public meeting. Comparisons are made between the prices of the year 1821—2 and 1834—5. In the former period, say your opponents, *all produce* was below a remunerating price, not wheat only, but meat, barley, oats, hops, and wool. Whole parishes were then thrown out of cultivation to my knowledge. Distresses for rent and fore-closures of mortgages swept like pestilences throughout the land. Is this, continue your opponents, now the case? This ought, as it readily may be combated by the landed interest, and undeniable proofs given of the fallacy of those arguments. Again, it is absolutely necessary to convince the Government (and when I use the term Government, I mean no particular party) of the existence of this general distress, who are very ready to see the two great interests of the kingdom divided; deluding themselves with fallacious hopes that distress is not generally prevalent because the taxes are paid, the revenue flourishing, and the old dropical hag in Thread-needle-street still casting favourable glances to Downing-street. Your Lordship has too much good common sense not to know that those symptoms are in truth the very causes which promote and increase the evils which are the subject of complaint. I would also premise that the manufacturing interest ought to be convinced of the *real* intentions of the landed interest in forming this "Central Association," having power to "levy money" and call forth "representation." The amount of the home and foreign consumption ought to be fairly and honestly ascertained, without which knowledge no honest mode of relief can be obtained beneficial to both interests. But above all, my Lord Marquis, the Aristocracy and the Clergy must abate, not their rents and tithes, but their pride and their exclusiveness. They must believe there exists persons who can save and serve the country, not bred in the purloins of Whitehall or nurtured in the corrupted atmosphere of the aristocratic dining rooms, drawing rooms, and club houses. The working classes must be propitiated. The country gentlemen (Mr. Cobbett very justly observed) will never see the day when the working classes will be again united to them, unless they shall cordially take the lead in common with those working classes. This I am in hopes they will yet do, otherwise every day of their lives will make their own inevitable ruin more and more manifest. But whether they do this or not (a task rendered ten-fold more difficult by the Poor Law Amendment Act), the consequences of a continuance of the present system will be the same. Prolongation will only tend to make the catastrophe more dreadful than it otherwise would have been. If the monster debt remains the same, with a gold currency of 3/17s 10/3d per oz., it will regularly go on producing misery upon the back of misery, and irritation upon the back of irritation. It is that cause, my Lord (turn and twist it as you will), which is constantly at work, the remedy for the evils of which, I once more repeat, is neither physically nor morally, nor unconquerably difficult (although painfully labourious), if the proper steps are taken, grounded upon the precedents and provisions already to be found in the Statute-book, and even in the Sacred Volume itself. What tremendous mischiefs must result from the monstrous proposition of putting out an unlimited and irresponsible issue of paper money; and no means could be devised for limit or control. It is the very essence of paper money to extend its quantity. Suppose the paper thus increased to reduce the value of the currency only one-third; of course all contracts whatever, public or private, foreign or domestic, would be reduced one-third, till at length the discredit of the paper would (as was the case in France) become so notorious that foreign nations would keep aloof from any commercial dealings with this sunken nation. I think that any project for getting out new quantities of paper will not succeed. Without it, however, the interest of the debt and the expenses of the State, with wheat at 4s 6d the bushel, (whatever may be said in Downing-street) cannot be paid out of the taxes. In all human probability the whole of the interest of the fun led and unfunded debt, all the sinecures, pensions, and salaries, and the expenses of a thundering standing army, will continue to be made up by

taxes, by loans from the Bank, by Exchequer Bills, by every species of contrivance, to the latest possible moment, and until the whole of the paper system, amidst the war of opinions, of projects, of interests, and of passions, shall go to pieces like a ship upon the rocks. This was Mr. Cobbett's prediction, and this is now the dreaded catastrophe I would lend a helping hand to prevent; and I can confidently assure the Editor of that most sapient Journal, the *Globe* newspaper (who has been pleased to be somewhat facetious on my former letter to your Lordship), that I am prepared at the proper time, and in the proper place, to submit the plan of a safe, honest, and efficient remedy, in co-operation, however, with other industrious, well-intentioned, and courageous individuals, who, in common with myself, have long foreseen the battle now about to be fought between the landlords and the fundlords—the one the victims of pride and obstinacy, and the other of self-interest and delusion.

SAMUEL WELLS.

Sergeant's Inn, Jan. 1, 1836.

### TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—My professional avocations calling me into the counties of Kent and Lincolnshire, I have frequently heard that the rents on the estates of Earl Stanhope and Col. Sibthorpe—who as far as can be learned from their speeches at agricultural meetings, entertain the deepest feelings of commiseration for the distressed condition of the agriculturists—are screwed up to the highest pitch. As these statements may have originated in some unworthy motives, and are calculated to prejudice these gentlemen in the eyes of the public, and to weaken the effect of their efforts in favour of the agricultural interest, perhaps some of your readers may be possessed of information which will enable them to set this matter right, by communicating the truth through the medium of your journal.

I am, Sir, your obedient servant,

A LAND SURVEYOR.

### PRACTICAL PLAN OF IMMEDIATE RELIEF TO THE TENANT FARMER.

The tenantry on the estate of Moncreiffe having invited Thomas G. Mackay, Esq. to a public dinner, in testimony of their sense of the kindness and liberality uniformly experienced by them in his management of the estate, as well as of their high respect for the general excellence of his character,—the dinner took place on Friday week, in Cameron's Hotel, Bridge of Earn. In addition to the tenantry on Moncreiffe Estate, several gentlemen and a number of tenants in the neighbourhood not connected with the estate were present, spontaneously and cordially concurring in this mark of their esteem. The evening was spent in the most agreeable manner, and at a late hour the company separated, highly gratified by the opportunity they had enjoyed of evincing their regard for their distinguished guest, and for the family of Moncreiffe.

Mr. Arnott of St. Magdalene's was in the chair, and Mr. Condie of Hiltown acted as croupier; and it is but just to those gentlemen to state, that both of them performed their respective duties, in a manner which conduced highly to the good feelings and festivities of the evening.

The dinner was excellent, and the party were so much pleased with the arrangements Mr. Cameron had made for their comfort and enjoyment, that the chairman took an opportunity of expressing his en-

tire satisfaction with the good cheer that had been provided for them, on so short a notice.

In the present time of extraordinary depression in the agricultural interests, it is very gratifying to have to record to the honour of the family of Moncreiffe, and those entrusted with the management of the estate,—that lately, and without solicitation on the part of the tenants, an arrangement has been entered into, by which the whole rental of the estate is converted into grain on fair and liberal principles; and the tenants are thus secured in the same quantity of the produce of their farms being equal to the rents now payable by them, as was necessary to discharge their obligations on that head when they entered into their bargains. This example of consideration and generosity it is to be hoped, will be generally followed.—*Perth Courier*.

AGRICULTURAL DISTRESS.—Extract from a letter on this subject, addressed to the Editor of the *Hampshire County Paper*:—"Deeply rooted is the evil of which we have to complain; the disease has taken so firm a hold that the remedy, which on the onset might have been simple, must now be of a decisive character. It is to a combination of remedial measures, and not to the abolition of one or two obnoxious imposts, from which general relief is to be expected. Reductions of rent would be an immediate and great source of relief; but tenants must first assist the landlords in obtaining measures which will enable them to reduce. Equalization of taxes, both local and general; a fair adjustment of tithes; imposition of poor laws in Ireland, would go a great way in giving them this power; and to these objects, with the abolition of one or two unjust and hateful imposts—malt tax for instance—it would be well for us to fasten our expectations of relief, rather than in a return to a currency of rags, which, now that confidence is lost, or rather the mad delirium of the war subsided, could have no effect in raising prices, in the face of an increased annual supply of one-third more quarters of wheat which now appears to be derived from England, Ireland, and the Colonies, as compared with years in which farm produce bore such extravagant prices.

A NEW DISCOVERY IN CHYMISTRY.—We have to notice the discovery of another of those active vegetable principles which every fresh analysis of plants brings to light. This substance, which has been termed diatase by its discoverers, MM. Payen and Persoz, occurs in barley which has just begun to vegetate. It has little or no action upon any organic matter, excepting starch, upon which it is so considerable as to render 2,000 times its weight of the latter soluble in four times as much warm water. If the proportion of the diatase be increased to about 1-200th of the weight of the starch, and the whole heated to a temperature less than that of boiling, it will be found that the starch has been wholly converted into a mixture of sugar, with a gum resembling gum arabic. The latter is now employed, in the great hospitals of Paris, as a substitute for gum arabic. The fact has been long known, though not previously accounted for, that beer, equally strong, may be brewed from a mixture of malt and barley, as from malt alone; and distillers have availed themselves of this circumstance. The starch of the barley is, by the action of the diatase of the malt, converted into gum and sugar, and the latter, when fermented, furnishes the alcohol or spirit. In organic analysis, diatase, from the extraordinary power which it possesses of rendering soluble so vast a proportion of starch, will render valuable service, as it will enable the chymist to separate the smallest portions from foreign substances.—*The Analyst*.

## SOME ACCOUNT OF THE FAIRS IN SCOTLAND.

EAST-LOTHIAN OR HADDINGTONSHIRE.

*(From the Quarterly Journal of Agriculture.)*

1. HADDINGTON MARKETS.—Haddington, the county town, is a considerable one, containing 5,883 inhabitants. It is sixteen miles to the eastward of Edinburgh, on the great London-road, by Berwick-upon-Tweed. It is a royal burgh, but being a country town, its trade is entirely dependent on agriculture. Its grain market, a stock one, held on Friday, is one of the principal in Scotland; and, as the town is situate in one of the finest districts in the country, the grain presented is generally of the finest quality, and fetches the highest prices. Its old fairs are now nearly gone into disuse, and are unworthy of particular notice. The only cattle markets in it are those established by the East-Lothian Agricultural Society a few years ago. The *first* is held on a Friday in April, the day being fixed by the Society by public advertisement. Along with a show of stock for premiums of bulls, stallions, fat cattle, and sheep of different descriptions, and also grazing-stock belonging to the members of the Society, there are generally from two to three hundred fat cattle shown of different breeds, both short-horns and north country cattle. Should cattle be in demand in England, English dealers attend, but the principal purchasers are the fleshers from Edinburgh, though a few are picked up for Glasgow. This market is improving and well worth the attention of those who wish to buy prime fat stock. The *second* of these markets is held on the Friday preceding All-Hallow Fair at Edinburgh. Some years ago north country dealers attended this market, but, being so near All-Hallow, it has latterly been nearly deserted. The *third* is held in December, on a Friday fixed by the Society, when premiums are awarded for different sorts of fat cattle and sheep; and also a market for fat stock is held. About the same number is presented as at the market in April. The quality of the whole stock at this market is of general excellence. The fleshers of Edinburgh and Glasgow buy them all up. The premium stock are first-rate, and would do honour to Smithfield. Their carcasses cut conspicuous figures at the stalls of the fleshers, who purchase them for the Christmas and New Year's feasts of the gentry who frequent Edinburgh at that season.

2. DUNBAR HIRING MARKETS.—Dunbar is a considerable sea-port town of 4,735 inhabitants, situate on the north-east point of the county; 28 miles east of Edinburgh, and 30 from Berwick-upon-Tweed, on the great Edinburgh and London mail road. It is a royal burgh, and has a weekly corn-market on Tuesday. Many of the inhabitants are in the sea-faring line, and engage largely in the herring-fishery when the herrings approach the Frith of Forth. The fairs in this town were held chiefly for the hiring of single farm and domestic servants, immediately after the terms of Whitsunday and Martinmas; but according to an agreement among the farmers and servants in East-Lothian, married farm-servants are hired on the farms. The few cattle that are bought and sold at markets at Dunbar, deserve no particular attention.

The ploughmen in East-Lothian are married men, and their characters stand high for good behaviour and expert workmen. Their wages are;

a house and garden, for which they must provide a shearer for twenty days, who gets victuals. The shearers' victuals consist of oatmeal porridge and milk at breakfast and supper, and a wheaten loaf and beer at dinner. They must also provide a woman or boy, the woman being preferred, to work field-work in summer, who receives eightpence a day when employed. Coals are drawn to them free of carriage and tolls, and they may keep pigs confined in a sty. They receive of corn, nine quarters of oats, eighteen bushels of barley, and eight bushels of peas; 800 yards along a drill of potatoes, the servants supplying the seed, but good servants are frequently encouraged with 1,000 yards. As much land as will sow one peck of linseed, which may cover from eighty to ninety yards, along a fifteen-foot ridge; but on many farms this allowance is relinquished, and a guinea given in lieu. A cow is kept for them all the year round; and, where the land is so clayey that little turnips are grown, hay is given instead. There is a very good practice among the ploughmen of this county of insuring their cows, which deserve imitation. If a cow happens to die before she is nine years old, the owner is reimbursed by an insurance club among the men, to which they subscribe a small sum annually; but if after that age, the risk is the owner's. There is no money wages given. We have heard it alleged that the farm cottages in East-Lothian are inferior in comfort and convenience to what the men deserve. This might have been the case many years ago, and perhaps is so still, in many cases; but the same remark would have then applied as well to farm-houses. Now, however, it cannot be denied that the style of the farm-houses is greatly improved. Farm-steadings are now of a very superior construction, and when improvements of this kind are executed, the servants' cottages are never neglected. The danger consists, in our opinion, of going to the opposite extreme of making cottages too capacious, by giving servants two-storied houses. Their furniture, in that case, becomes quite unsuitable for such houses. It is no kindness to put a man into a house which he cannot afford to furnish; and, on the other hand, useless furniture is a drain on the poor man's pocket, and a great toil to him when he unhappily has to move to a new abode. All that a farm-cottager really requires is a "but and a ben,"—comfortably floored with pavement or brick, and roofed with lath and plaster—not divided by a partition wall, but much more comfortably by the furniture, which can be arranged to form two sleeping-apartments, with fire-places, one to be occupied as the ordinary cooking room, and the other containing within it a store-room for meal, potatoes, and milk.—A large window to each apartment, and a small one where the store-room should be—with an inner door on one side of a small hall or "hallan," within the outer door. An outhouse behind for the pig and coals is a great convenience. No good servant should be deprived of these comforts, nor compelled to uphold superfluities.

3. GIFFORD FAIRS.—Gifford is a small village situate at the base of the Lammermuir Hills, hard by Yester House, the seat of the Marquis of Tweedale, and is eighteen miles south-east from Edinburgh, six south of Haddington, and eighteen from Dunse in Berwickshire over the Lammermuir Hills by Longformacus. There are three fairs held yearly in Gifford, and these are the only ones of importance in East-Lothian. The first is held on the last Tuesday of March, principally for the sale of ewes at the lambing. The ewes are

chiefly of the Cheviot and black-faced breed from the adjoining Lammermuir Hills. From 2,000 to 3,000 are shown mostly by the breeders, who sell their best ewes at this season, the principal buyers being the East-Lothian farmers and graziers, although some graziers attend it from different counties, who take grass parks for the summer, and feed off both ewes and lambs for the butcher. The age of the cast ewes from the Lammermuir Hills does not exceed five years, being younger than the west and north country ewes; and, being sound off these hills, they thrive well, and make themselves fat on good grass after they have fed off their lambs, while the north country ewes when sold are six or seven years old, and do not get fat. This advantage makes graziers give the preference to Lammermuir and other south country ewes. Old ewes require very fine keep to feed off. Occasionally a few lots of wethers and hogs are shown, but this is principally a ewe market. Very few cattle or horses are shown at this fair.

2d. The second fair is held on the third Tuesday of June, at which is a good show of wethers and hogs, with a few ewes and lambs, and occasionally a few fat lambs, from 3,000 to 4,000 of different kinds being generally exposed to sale from the Lammermuir Hills, and high parts of East-Lothian. The lower part of the county not being a breeding district, the sheep shown at this fair are principally purchased by farmers, from the low districts, who graze them and feed them for the Edinburgh market. Sheep from the hills are, however, seldom full of condition as to get prime fat off the grass, but with a month or two on turnips, they come very prime to the market by New Year. The wethers from the high parts of Lammermuir, and the hogs from the side of the hills, coming off sound and hard land, make rapid improvement when they get to good keep in the low country. There is generally a pretty fair show of cattle at this fair, say from 400 to 500, mostly short-horns, which are not so well bred as those on the south side of the hills. They are generally two-year olds, and are mostly purchased by farmers and feeders in the low country. There is sometimes a good display of north country grazing cattle, and a few lots of short-horns are brought by dealers from the southern districts, and when the season is favourable for grass, they meet a ready demand; but this of course depends entirely on the state of the pastures, which also regulates the prices in the sheep market. Very few fat cattle are shown at this fair, although there is sometimes a fair show of indifferently bred milch-cows. The aged cows are purchased for the Edinburgh market, and the younger sorts for country use. There is generally an excellent show of horses at this market, and numbers of buyers and sellers from Edinburgh and the surrounding country attend, and do a great deal of business.

3d. The third fair is held on the first Tuesday of October, when a large show of sheep, principally of draft or cast-ewes, is presented, the great bulk of them being Cheviots and black-faced—the Cheviots predominating, with a few lots of Leicester and half-bred ewes, and wethers and hogs. The number of the whole varies from 3,000 to 4,000, most of them being from the Lammermuir Hills. Several of the Cheviot lots come from Gala Water, and other pastoral districts in the south, and some of the Leicester and half-breds from Lauderdale. The principal purchasers are farmers from the low parts of East-Lothian, who keep no

breeding-stock, and buy in ewes at this season, and put Leicester rams to them, and their produce makes excellent lambs. The lambs from the Cheviots, or black-faced ewes bought at this fair, are lambed in March, and ready for the Edinburgh or London markets. Such lambs are very superior when allowed to suck till they attain nine and ten lbs. per quarter, when they suit the London market well, where some of them, of late years, have brought very high prices, in May and June, when lamb begins to decline in price in the Edinburgh market. This opening to the London market by steam-navigation, holds out a strong inducement to East-Lothian farmers to buy Cheviot and black-faced ewes in October, as the lambs from Leicester, and half-bred ewes, being first ready for the Edinburgh market, before May, and being much too small for London, are worth a good price in Edinburgh; but the lambs, from Cheviot and black-faced ewes wintered in East-Lothian, becoming ripe only in May or June, their weights then suit the London prices. Consequently considerable shipments are made of lambs at that season, which, without such an opening, would have to be sold in Edinburgh, at the then low Edinburgh prices.

Ewes, although bought at high prices at this fair for some years past, have paid well, principally from the high prices of lamb and wool. When they are well-wintered, and full of condition at the time the lambs are taken off, and when they are well-pastured for about six or eight weeks after, they become early ready for the Edinburgh market; and thus by the sale of both lambs and ewes a great advantage is derived over the spring-bought ewes, which are much later in getting ready for the market, and must encounter the competition of stock from the high districts. Highland farmers have now found out, that light stocking pays them better than heavy, and by that means they can now send their lambs and ewes into the market nearly as early as the spring-bought ewes and lambs of the low country.

There is a pretty good show of cattle at this fair, mostly short-horns, a number of which are shown by south country dealers, who purchase them at Jedburgh and other markets in the southern districts; the remainder are six-quarter and two-year olds bred in the country, with a few lots of north country bred cattle. If turnips are a good crop in East-Lothian, a few farmers who care not to go far from home to purchase stock, create a good demand at this fair. Very few milch-cows are shown at this season; but those which are new-calved, or at the calving, generally meet a ready demand from the Edinburgh cow-dealers. There is also a good show of horses, and a number of dealers from Edinburgh and the surrounding country attend both as buyers and sellers, and generally transact a good deal of business.

One of the East-Lothian agricultural shows is held at Gifford at this market. Premiums are awarded to Leicester, Cheviot and black-faced tups and ewes, and Leicester gimmers; and there are always some very fine specimens of each kind of stock shown.

Fairs occur at North Berwick on the last Thursday in June, and the last Thursday of November; at Stenton on the last Thursday in October; and at Cockenzie on the first Thursday in November; but they are of no importance, and ought to be abolished. Linton, however, appears a very eligible situation for a market, being in the middle of the county, and on the great leading road

through it. We conceive that a monthly market established there on a similar principle to those at Kelso, Coldstream, and Dunse, which we have already described, would be of essential service to the feeders of stock in East-Lothian. If it were held on Monday morning, the dealers who attend Edinburgh and Morpeth would have time to bring the stock forward for the weekly markets on Wednesday, at both these places.

## ON SHOEING HORSES THAT STRIKE OR CUT.

BY MR. MOORCROFT.

To prevent a horse from striking the foot or shoe against the opposite leg, by which it is often bruised and wounded, is an important point, inasmuch as this accident occurs very frequently, and as it not only blemishes and disfigures the leg, but also endangers the safety of the rider.

The parts struck in the hind leg are the inside of the fetlock joint and the coronet; in the fore leg, the inside of the fetlock joint and immediately under the knee; which latter is called the speedy cut, from its happening only when a horse goes fast.

Young horses when first backed generally cut their fore legs, though naturally they may be good goers. This arises from their placing the foot on the ground too much under the middle of the breast, in order the better to support the burthen to which they are unaccustomed; but by degrees they acquire the method of balancing the weight with the foot in the same direction it would naturally have if they were without it. It may therefore be laid down as a rule with such horses, that until they regain their natural method of going, the edge of the inner quarter of the shoe should follow the exact outline of the crust, but should not be set within the crust, nor should the crust itself be reduced in thickness; as both these practices tend to weaken the inner quarter, and to deform the hoof. And here it must be observed, that the outer edge of the shoe should in all cases of sound feet follow exactly the outer edge of the crust, except just at the heel, where it should project a little beyond the line of the hoof.

Horses with narrow chests have their legs near together, and are apt to cut when they begin to tire; and with these the practice just mentioned should always be employed. Horses that turn their toes much outwards are, of all others, most subject to cut. It has been asserted that this defect also happens to those who turn them much inwards; however, the author does not recollect to have met with a single instance of the kind in the course of his practice. In horses of the first description it has been long observed, that the inner quarters of the hoof were lower than the outer, and that the fetlock joints were nearer to each other than in horses whose feet pointed straight forwards. These two facts probably led to a conclusion, that if the inner quarters were raised to a level with the outer, and so much the more as they were made proportionally higher, that the fetlock joints would be thrown farther apart, so as to admit of the foot passing by the supporting leg without striking the joint. Accordingly, for the last two centuries at least, it has been usual to make the inner quarter of the shoe higher than the outer; not only has this been the general practice, but it has been regularly recommended by every writer from that time to the present; and notwithstanding this method has very frequently failed of success, yet repeated disappointments have never led to the questioning of the truth of the principle. Nay, indeed, the reliance placed upon it has been so strong, pro-

ably from the simplicity of the reasoning on which it is founded, that, in the cases where it most particularly disappointed expectation, its failure was generally attributed to the practice not being carried sufficiently far, and accordingly the shoe has been still more raised on the inner quarter, and the edges of the crust and shoe have been filed away. When with these expedients it likewise failed, the last resource has been a circular piece of leather placed round the joint to receive the blow of the foot.

It is now about four years since that a shoe with the outer quarter thick and the inner one thin was, for the first time, in the practice of the author at least, employed in a case which baffled many attempts on the old plan.

On the first trial the horse ceased to cut, nor has he ever done it since; which can only be attributed to his having constantly worn the same kind of shoe. This circumstance did not then excite in the mind of the author any doubt as to the propriety of a practice which had so long been generally acknowledged but was rather considered as an extraordinary exception. However, other bad cases, which occurred occasionally since that period, were treated in the same way, and with the same success. These facts, at length, led the author to conclude, that a practice which was so uniformly followed by success, in cases where the established one was uniformly failed, must necessarily repose on a better principle; although for a long time he was completely at a loss how to explain it; for if the action of cutting did principally depend upon the faulty position of the fetlock joints and the feet with respect to each other, and it appeared to be generally agreed that such was the fact, it should seem that a means, which by raising the outer quarters would throw the fetlocks still nearer to each other, would necessarily increase the defect in question; but as the reverse of this actually takes place, it might induce a suspicion that there exists some other cause of cutting which has been hitherto overlooked.

A minute examination of this point would far exceed the limits allotted to this division of the work; and, therefore, at present the author will confine himself to that part of the subject only which is absolutely necessary to be understood.

For horses, therefore, which cut their hind legs, the shoe at the outer heel should be half an inch in thickness, according to the kind of horse and the degree in which he cuts. The web of the shoe should gradually become thinner until it reaches the toe, which should be of the ordinary thickness, and from which it should slope off, and end in a tip in the middle of the inner quarter. This shoe, in point of effect, would be equally proper for the fore feet, were it not that in such horses as are used for the saddle, the fore feet, being more charged with weight than the hind ones, are much more liable to be injured, and a horse thus shod on the fore feet might go unsafe; therefore it is expedient to let the inner quarters of the shoe be thin, and reach to the heel, but the outer edge should be bevelled off, so as to slope inwards. The same kind of shoe is equally well calculated to prevent the speedy cut; observing to bevel off still more strongly the part which strikes, and not to put any nails thereabouts. And here it may be proper to remark, that in sound feet the heel of the shoe should reach as far on the heel of the hoof as to admit of the angle formed by the crust and the bar resting fully upon it; but it should not be carried quite as far as the end of the heel of the hoof.

In order to ascertain what would happen to a horse shod with different kinds of shoes, the following trials were made:—

**EXPERIMENT I.**—A horse with a narrow chest, who had never cut, and having parallel shoes on his fore feet, was trotted at about the rate of eight miles an hour in a straight line over ground sufficiently soft to retain slightly the impression of the shoes, but not to admit the feet to sink into it.

Two parallel lines were drawn along the track, including between them the prints of the shoes. By these it was found that there was regularly a distance of nine inches and a half between the outer edge of the near fore shoe and that of the near off shoe.

**EXPERIMENT II.**—Shoes thick in their inner quarter, and like a tip, reaching only half way on the outer quarter, were then used; and it appeared that the distance between the outer edges of the prints of the shoes, taken as before, were regularly reduced to eight inches and a half.

**EXPERIMENT III.**—The same shoes were placed on the opposite feet, so that the thick heel was on the outer quarter; and the result, under circumstances exactly the same as the foregoing experiments, was that the distance between the outer edges of the points of the shoes was regularly increased to 11 inches.

To account for these results, it is necessary to attend closely to the different effects produced by the weight of the fore part of the body acting upon the two fore feet, when raised on the inner or outer quarters, during the opposite states of rest and action. And first, with regard to shoes raised on the inner quarter: whilst a horse so shod is standing still, the fetlock joints are certainly thrown farther apart than when any other kind of shoe is used. Hence it was concluded, that the limb which supported the body would have its fetlock joint thrown so much outwards as to keep it completely out of the way of the foot in motion. But it appears that the impressions made on the ground by such shoes are an inch nearer together than those made by parallel shoes, and two inches nearer together than those made by shoes raised on the outer quarter. And this may be thus explained: when the horse is at rest, the weight is supported equally by the two fore feet; but the instant one foot quits the ground, the weight is suddenly transferred to the other, and by the outer quarter being lower than the opposite one, the fore part of the horse has a tendency to fall over the outside. To prevent this, the moving foot is suddenly brought close to the fetlock of the supporting foot, in order to relieve it by catching the weight, and the foot itself is placed on the ground too much under the middle breast. The same circumstance occurs to both feet in their turn; and the horse, being thus in constant danger of falling to one side or the other, is constrained to bring his feet near together to preserve his balance, and in doing this strikes the foot against the opposite fetlock.

It frequently happens, that the more the toes are turned outwards the nearer the fetlock joints are brought together, and the more the horse is disposed to cut. However, this is true only to a certain extent; for if this faulty position of the lower part of the leg be carried artificially beyond a certain point, instead of producing an increased degree of cutting, in most instances it remedies the defect altogether. The reason of this is just the reverse of what takes place when the inner quarter is raised; that is to say, when the weight of the fore part of the body rests only upon one leg, it bears too much upon the inner quarter, from its being lower than the outer quarter; and thus the horse has a tendency to fall over to the inside of the supporting leg.

To prevent this, the moving foot is thrown farther from the supporting leg, in order to maintain the balance, and thus the foot misses the fetlock joint.

## RAPID PROPAGATION OF DOMESTIC QUADRUPEDS OVER THE AMERICAN CONTINENT.

Humboldt observes, in his travels\*, on the authority of Azzara, that it is believed there exist in the pampas of Buenos Ayres twelve millions of cows, and three millions of horses, without comprising in the enumeration the cattle that have no acknowledged proprietor.

In the Llanos of Caracacas, the rich haters, or proprietors of pastoral farms, are entirely ignorant of the number of cattle they possess. The young are branded with a mark peculiar to each herd, and some of the most wealthy owners mark as many as fourteen thousand a year. In the northern plains, from the Orinoco to the Lake of Maracaybo, M. Depons reckoned that 1,200,000 oxen, 180,000 horses, and 90,000 mules, wandered at large. In some parts of the valley of the Mississippi, especially in the country of the Osage Indians, wild horses are immensely numerous.

The ass has thriven very generally in the New World: and we learn from Ulloa that in Quito they ran wild, and multiplied in amazing numbers, so as to become a nuisance. They graze together in herds, and, when attacked, defend themselves with their mouths. If a horse happens to stray into the places where they feed, they all fall upon him, and do not cease biting and kicking till they leave him dead. †

Hogs, sheep, and goats, have likewise multiplied enormously in the New World, as have also the cat and rat, which last has been imported unintentionally in ships.

The dog, introduced by man, which at different periods became wild in America, hunts in packs, like the wolf and jackal, destroying not only hogs, but the calves and foals of the wild cattle, and even destroying horses.

The rapid propagation of domestic animals over the continent of America, within the last three centuries only, is a fact of great importance in natural history. The extraordinary herds of wild cattle and horses which overrun the plains of South America sprung from a very few pairs first carried over by the Spaniards; and they prove that the wild geographical range of large species on great continents does not necessarily imply that they have existed there from remote periods.—*Lyell's Geology.*

## TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR—I shall feel obliged if you or some of your subscribers will, for the satisfaction of myself and several of my neighbours, inform me through the medium of your journal, how it is that the name of the Marquis of Chandos, who we all consider the "farmer's friend," is not found in the list of names put forth as members of the "Central Agricultural Society."

I am, Sir, your obedient servant,  
A BERKSHIRE FARMER.

**TO TURNIP GROWERS.**—A turnip of the green topped kind was pulled a fortnight ago from the lands of Mr. Whitfield, of Cantlop, Salop, measuring 44 inches in circumference, and weighing when cleared from leaves and soil, 23lbs.

\* Pers. Nar., vol. iv.

† Ulloa's Voyage, Wood's Zool. vol. i. p. 9.

## COMPARATIVE VIEW OF OXEN AND HORSES FOR THE PURPOSES OF HUSBANDRY.

(From the Irish Farmer's Magazine.)

This subject has been treated on by many practical and intelligent men, yet it does not appear that any positive decision has been formed as to their relative merits or value generally for this purpose, and this in consequence of the individuals who have given them a trial not having sufficiently considered circumstances and localities in adopting each respectively. That the horse is faster than the ox cannot be disputed, but then the former can do but little more work daily on strong land than the latter, consequently on the score of labour on such there is but little difference, as two good oxen will be equal to the same number of horses, for the purpose of ploughing for several months in the year. It must however be admitted, that in hot weather oxen or heifers cannot endure fatigue, also that their pace is usually too slow for harrowing to advantage, and for carting on the road; and although they may be shod for this latter purpose, they can with difficulty be trained to work as fast as horses. These disadvantages which we have stated are still more evident on light soils, for on such horses will plough at a much better pace than on strong land, but the gait of oxen will be nearly the same at all sorts of work, and on all descriptions of land, and even should the greatest expedition be necessary, work cannot be pushed forward by those who solely depend on oxen for all farming purposes.

We do not however mean to assert that those who admit this superiority of the horse for labour should justify the rejection of the ox for agricultural purposes; for it will be found that on many farms it will be highly beneficial to have teams both of one and of the other: and when it is considered at how much a cheaper rate the latter can be supported, and that they are annually improving in value, and afterwards also feed quicker than those not put to labour, these qualities will be more than equivalent to their deficiencies in the comparative work of the two animals. Oxen or heifers will work well on hay and Swedes, and should any accident happen them, the loss will not be so heavy as when a horse is so far injured as to be unfit for work. Besides the outfit for a team of the former is not so expensive as that of the latter, which are also annually decreasing in value. Good three-year old bullocks may be now bought in from eight to ten pounds a head, and an expert person at the business will break them to the plough in a week or ten days, and after working for three or four years, their value will often encrease two-thirds of their original cost; neither are these beasts so subject to lameness, colds, and distempers as the horse; it therefore may be safely asserted, that the advantages of using oxen or heifers for agricultural purposes are much greater, especially in this country, than is too generally supposed.

In England the disparity of prices between the ox and the horse is much greater than in Ireland, and this is often the reason the for-

mer is so much used in many parts of that country. On the strong clays of Herefordshire, Sussex, and Shropshire, four oxen are thought necessary, and are still used, but it has been proved that two, well yoked to a suitable plough, will do the same quantity of work effectually. No doubt, could it be proved that it requires four oxen to do the same work as two horses, there would be no advantage in adopting them in preference. Mr. Lawrence, an intelligent writer on this subject, however, observes—

“ I will pledge myself, without hesitation, that a pair of well-bred sound oxen, driven by a steady and experienced man, will, barring accidents, continue annually, the quantum of labour above stated, during three years, or from four or five, to eight or twelve years of age; have in the interim, sufficient respite from labour, and quit it, at the conclusion, in good and saleable condition. The reason assigned for the inadmissibility of oxen on clays, respects only the common bred species, and such as are insufficiently fed. I should much doubt, that the generality of Scotch plough horses equal in speed the best English draught oxen, at least we do not find such to be the case here.”

These remarks are most deserving of attention, for unless a docile, thrifty, and well-formed animal is chosen for this work, there will be not only much difficulty in breaking them in, but likewise keeping them in condition during the time they are working. Mr. Cully on this subject also observes—

“ The author and his brother in partnership, at this time, employ about one hundred and fifty oxen in the draught, which is mentioned here, as a proof that they approve of drawing oxen, in many cases, after more than thirty years' experience; they use them in carts singly, and two in a plough, with cords, without a driver, where they go equally as well as two horses, though not quite so swift, and I am happy to add, that the working of oxen is becoming more general every day, as many of our neighbours are following this example.”

Oxen will not however answer all farming purposes so well as horses—they are not sufficiently fast for harrowing effectually, nor do they work so well on the road: but this in the arrangement of the number of teams necessary to accomplish the farming work can be easily regulated. With respect to the quantity of food consumed for the support of the ox or the horse, there is but little difference, but it is the quality of this article in which the difference of expense consists, for oxen will thrive well in winter on any dry fodder that is clean and sweet, getting at the same time a fair allowance of mangel wurzel or Swedes, but the horses will require the best hay and corn, regular care and cleaning after their work, besides an annual expense of shoeing.

Mr. Parkinson in his “Treatise on Live Stock,” recommends the following mode of treating cattle when young, intended for the yoke—

“ Whether calves are reared at the kit or with the cow, it is proper to tie them up, if only for a week or fortnight, as they thereby become obedient to a rope ever after, and are learnt to be led.

“ It is a good way to tie young steers, intended for the draught, together by the heads, the rope used being of a soft kind, or it will quickly render their

heads sore. Attached to the rope, there must be a piece of chain, about two feet and a half or three feet long, according to the size of the cattle, with a swivel in the middle, to turn as the cattle change sides, to prevent the rope twisting into knots. Some people put them in yoke, and hoops; but when loose in a pasture, I have known many accidents to happen to young steers so treated; for if there be any deep ditches, hollows, or holes, they are liable to push one another in. There is also one inconvenience attending the use of the yoke for draught oxen, when employed to cart hay or corn; for it is observed they will not stand, but will keep eating, and will require a person constantly by them. Nevertheless, I am very partial to yokes and hoops, for different reasons: in the first place, they are cheap and simple; and, secondly, I am of opinion, that a pair of oxen abreast would draw as great a weight as three such oxen one before another in harness: nor do I see any necessity for using horse-harness for oxen to draw in;—a cart saddle becomes the back of an ox just as well as a cocked hat would do his head. The ox is weak in the back, though very strong in the neck; but, as he draws by the withers on the upper part of his neck, not by the shoulders, a horse-collar is very improper for him. The manner of an ox's drawing is quite contrary to that of a horse; the latter is strongest in his back, where the former is weakest; but the strength of the ox is so prodigious in his neck, that, could he get his head under, he will almost overturn a house. Leather collars, housings, back-bands, a horse's bridle, tassels, &c. would become a pig as well as an ox; at an annual expense of at least from 3*l.* to 4*l.* 15*s.*, including keeping in order and repairs; while yokes and hoops may be obtained, at the highest charge, for 10*s.*, and kept in repair for 2*s.* 6*d.* or 3*s.* a year; and they are, at the same time, more becoming. I have known many instances of oxen drawing a weight in deep dirty roads, that would nearly have laid a horse fast, particularly in woods; for a beast is scarcely to be laid fast in dirt, as he will roll through; and by drawing in yokes and hoops, side by side, they are nearer their work; the advantage of which may be seen in the conduct of the carter driving a team of horses single, who, if his cart or waggon gets fast in a mire, takes off his fore horses, and puts them as near to the cart or waggon as he can fasten them; but it requires little penetration to perceive that the nearer the power is to the burthen the lighter it must draw on all roads. Oxen when double, quarter with much less difficulty than horses; they are naturally surer footed, and not so liable to slip, by their feet being cloven. When the young steers have been accustomed to go side by side, as directed, if the person using oxen for draught have two pair well broken, and these young steers be put in the middle, one pair before and another behind, there will not be the least difficulty in breaking them in, for being in company with other cattle, they will readily walk forwards. At all times observe not to put them to any work that requires irregular pulls, such as leading dung, where the cart takes more power than the shaft oxen can exert; for on such occasions the carter is obliged to use the whip, which frightens the young steers, and these, finding themselves fast, will probably draw back, and even take the strength of the two fore oxen to keep them straight. Therefore, dragging the harrow or scarifier is the best employment until they have been accustomed to labour; for they ought to have little occasion to use exertion, nor should they be at all forced, for some time, but left entirely to themselves, the driver taking no notice of them, till they begin to draw, when he should

give them encouragement. Every driver ought to feed the cattle he drives, as cattle and all animals readily know the persons from whom they receive their food; but animals have more discernment than many people are aware of, and are very sensible of good or bad treatment."

We shall now state more particularly the disadvantages of the use of oxen for ploughing, in order to bring the subject fairly before our readers—and as it has been discussed very closely by some of the most experienced men, we will endeavour to draw such conclusions from their respective arguments and practice, as may further satisfy those who have their doubts or prejudices. Oxen, independently of being slow, are soon blown in hot weather, but the latter objection is of trifling consideration in Ireland, where there is but few weeks usually of excessive heat in the year. Their slow pace however is a great disadvantage if used for seed sowing, and they also poach the land more than horses: nor does it appear that even in light soils they can be made to quicken their gait; and as expedition is at this work often of great importance, teams of oxen alone should not be depended on. It is then naturally asked, why use them for this purpose, for it is asserted by some feeders that a bullock could be fatted during the year, he might otherwise be turned to draft and would pay better selling out fat. In this opinion however we cannot agree, for beasts of this description will grow till they are five or six years old, and certainly will feed faster and to a much greater weight when they have attained their full size, than if forced into maturity when too young. Cannot then the intermediate time be beneficially employed, even admitting those animals merely pay for their keep, by turning them to labour? This, however, should be done in a judicious manner, for if over worked or under fed the object desired cannot be effected. A working ox should have sufficient grass or other food to fill himself quickly, in order that he may have sufficient time to lie down to rest; in the commencement also he should only be worked according to his strength and years, and not put to hard labour till well broken in to his work, and in summer not yoked in the heat of the day. At this season the ox team may go out at five in the morning and work till eleven, and the horse team finish the day in a press of business—compensation may be made for this extra work to the ploughman, which will ultimately save the extra expense of a second person in this department. When at hard and constant labour, oxen should get some bruised oats and cut hay, that they may fill their stomachs quicker and more effectually digest it, and regularly watered three times a day if necessary. With respect to yoking oxen, an intelligent writer makes the following observations, which being applicable to the Irish system of management among many of our farmers, we shall extract:—

"A sort of boast is often made, of drawing oxen single, like horses; but I think it a most horrid practice, either in horses or cattle. I will give a few reasons, by comparison. Can any person suppose, if the mail-coach were drawn by four horses single, one before another, that it would perform the number of miles in the same time, and with equal ease? I am of opinion, it would be with some diffi-



culty, if they performed it in twice the time. Or, were the horses in a broad-wheeled waggon, which is drawn by eight abreast, and sometimes by ten, put one before another, it is a doubt with me whether they could draw the waggon, with the weights laid upon it, at all, on difficult ground, up hills, or in mud. Mr. Cully mentions single-ox carts; the adopting of which would be a vile practice, much worse than the other: not a single argument has been adduced in their favour that will bear the test of examination. In the first place, a pole to draw the cart by, costs much less than shafts, the yoke and hoops less than a cart saddle; harness for two carts, and four oxen in harness, would cost at least 20*l.*; in yoke and hoops, about 20*s.* One man, with four oxen, either in a large cart or waggon, would take as much or more weight than the four oxen in four carts, while the four carts require each a driver; and, as all friction must consume power, less will be lost in a cart with two or a waggon with four wheels. A heavy carriage, when set going, will run with very little assistance from the team, if properly made and loaded, as may be seen in the very heavily laden stage-waggons, on hard turnpike roads, proceeding for a long distance together, and not above two of the horses, out of eight or ten, with their traces tight. Either a horse or an ox in a cart is always in distress; he has no relief from the shaking of the shafts: and it is observed by the stage-waggoners, that the shaft horses are lower in condition, with the same keep and hours of working than those that draw in the traces. But, from my own knowledge, I can speak decidedly as to this matter, having fully tried the experiment when I lived in Doncaster, and carried ale to Sheffield. The tolls at the turnpike-bars being less for six carts than for six horses in a broad-wheeled waggon, and having heard a great deal, and seen much in authors, in favour of single-horse carts, I thought, by adopting the use of them, to save money at the bars; I therefore got six carts, which were driven by two men, the usual load being given to each horse in proportion to what he drew before in the waggon, namely, a ton a horse, besides the carriage.

"The result was, the horses, with the same hours' work and the same feed, appeared much injured, and the chafing of the cart made their backs sore; and I found that to keep them in as good condition as when in the waggon, they could not trail more than half their usual burthen. Again, when I lived in Ireland, where they use cars in all farming business, I made one waggon and three large carts; each cart carrying as much dung at one load as eight cars; consequently, one man and two horses to the fields, which were near the fold-yard, in the same given time took out as much dung as eight horses and eight men or boys."

By this it is evident that the mode of yoking the oxen in cars or carts is a very material consideration, but as it is not advisable to employ them in this way, except through necessity, being too slow, it is unnecessary to dwell on this matter. It does not however follow that oxen cannot be trained to go fast, and even if this cannot be accomplished spayed heifers may be substituted, which being lighter and more active, will, except in warm weather, do as much work as horses, if well fed. The choice of cattle or horses should however depend in a great measure on the nature of the soil to be cultivated, for a horse team will do one-third more work on light soils than oxen, but on heavy land, as already stated, or where deep ploughing is necessary, the powerful chest of

the ox will accomplish as much as the activity of the horse.

We would not however, under any of the circumstances already stated, recommend the use of oxen or heifers for agricultural purposes, unless on farms where there were ample means for their support by artificial food throughout the year, for were they to be supported on natural grass or hay the expense would be nearly equal to that of horses, as by such a system a large proportion of manure is collected, and the animals maintained at half the cost incurred by the usual mode. It is, however, extraordinary that the accumulation of manure is seldom taken into consideration, although it is one of the great advantages which result from the soiling system, and we have no doubt that even if there were no other benefit the practice would be worth pursuing.

Lord Somerville's valuable observations on the breaking in and management of working cattle, and the comparative view of the expense, &c. of both animals is worthy of notice:—

"At the last meeting, in 1803, of the Dublin Society, his Lordship was informed, by a spectator of undoubted veracity, that several ploughs were entered for the prizes given; and, to the surprize of every one, the oxen beat the horses in speed: they were worked in pairs only, without drivers. These animals were not selected from the breeds most esteemed for labour, but from the oxen of that country.

"The following is his Lordship's method of working oxen: the animals are broken in at three years old, their first half year's work being easy. At six years old they are sold to graziers, and in eight months they come to Smithfield good beef. In the intervening period his work is done at the rate of about eighty acres of tillage to four oxen; and his twelve oxen, exclusive of the three-years old steers, will work thirty acres of land *per week*, when not employed in carrying lime or manure, which is ten acres per week for each four oxen, or five acres for each pair, that is, two acres *per diem* for four days in the week, for each team of four, allowing them two resting days. Thus their daily labour is completed in seven hours and a half, which gives them sixteen hours for rest. Lord S. remarks, that if they were allowed corn, they would probably do more work; and, if they did less, he would not employ them at all. He allows one horse to every 100 acres of land, for extra work, and no large number.

"Comparative expense of keep, and general savings.

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| <p>1. "Oxen are easily supported, during the severity of winter, on straw, turnips, &amp; other vegetables. Besides, as ruminating animals possess stronger digestive organs, every thing capable of affording nourishment is extracted from their food.</p> | <p>"1. Horses require to be fed with hay, oats, or beans, articles which can only be purchased at a heavy expense. The digestive powers of a horse are weak, so that, upon an average, two-thirds more are necessary for him than are required by an ox, in order to afford the same nourishment.</p> |
| <p>"2. Every day that oxen are employed, they earn more than their keep; while, if properly fed, they will require no other care.</p>  | <p>"2. A horse not only requires more stable attendance than oxen, but also often exhausts the property of little farmers, who exert themselves in order to keep a <i>fine team</i>.</p>  |

- "3. The gear necessary for a pair of oxen may be procured at a very moderate price.
- "3. The harness of a team is, in general, an expensive article, especially when the vanity of the owner induces him to have it decorated with paltry brazen ornaments.
- "4. At the end of five, six, or seven years, during which they will have more than compensated the cost of keeping them, they are in prime order for fattening; and, when fit for sale, produce to their owner a handsome sum, varying indeed according to the state of the markets, but ultimately bringing him a considerable clear profit. The same event will follow, if, through accident, the beast is lamed, or rendered unfit for work."
- "4. Horses become less valuable every year they are kept. They are liable to spasms, farcy, glanders, foundering, cankers, and a host of diseases too numerous to be here specified, from all which oxen are exempted, (these animals being subject to few diseases, except a scouring, or looseness, that reduces their value); while horses are, by sudden illness, or lameness, speedily diminished in value, from forty to four guineas, and at length become food for dogs, their hide only being in any degree serviceable to mankind."

Although in the foregoing view we think the writer has overvalued the advantages of ox in preference to horse labour, yet it proves sufficient to shew that the more general introduction of these animals for this purpose would be found most beneficial to the pocket of the tillage farmer, and this more especially in Ireland, where so large a proportion of the land is strong and deep, and the climate cool and moist. Cattle, it is known, endure wet much better than horses, and these latter cannot, in deep ploughing or strong ley, get over the ground much faster than the former, especially if the Devons are used, or others equally active and docile, there is no doubt of their superiority for work—all matters taken into consideration.

It appears from the writings of many travellers in the interior of Africa, that the ox is the principal animal employed both for travelling and the labours of husbandry, and one of them observes, "that being longer legged, and rather more lightly made than the ox in England, travels with greater ease and expedition; walking three or four miles in an hour, trotting five, and galloping, on an emergency, seven or eight." A cross from this breed might, then, be advantageous to improve our native cattle for this purpose.

Calves intended for the yoke should be made tractable and docile at an early period, and there is no doubt, although not naturally so, these habits may be acquired by proper attention in early management. In breaking them for labour, it should be done by gentleness and in company with experienced and well-tempered oxen. Bulls are often used for this purpose, being stronger than oxen, but they are not so tractable, and usually are uncertain in their disposition. Besides it would be necessary to keep them in different feeding houses, such is their propensity to

fight with each other. The following animated picture is drawn on this subject by the Editor of "British Husbandry":—

"Cattle are like most other animals, the creatures of education and circumstances. We educate them to give us milk, and to acquire flesh and fat. There is not much intelligence required for these purposes. It fares with the ox, as with all our other domesticated dependants, that when he has lost the wild freedom of the forest, and become the slave of man, without acquiring the privilege of being his friend, or receiving instruction from him, instinct languishes, without being replaced by the semblance of reason. But when we press him into our immediate service,—when he draws our cart and ploughs our land,—he rapidly improves upon us; he is in fact, altogether a different animal: when he receives a kind of culture at our hands, he seems to be enlightened with a ray of human reason, and warmed with a degree of human affection. The Lancashire and the Devonshire ox seem not to belong to the same genus. The one has just wit enough to find his way to and from his pasture; the other rivals the horse in activity and docility, and often fairly beats him out of the field in stoutness and honesty in work. He is as easily broken in, and he equals him in attachment and gratitude to his feeder."

#### AGRICULTURE IN EAST LOTHIAN.

"SIR,—In the new statistical account of the parish of Dunbar, under the head of 'Husbandry,' I observe the following:—

"The soil being dry it is easily pulverised, and cleared of rooted weeds; therefore there is comparatively but little fallow. The rotation of crops is, 1, Turnips upon two or more ploughings dunged, and generally fed off; when carried off a compost of lime and earth is generally applied. 2, Wheat, with clover and rye-grass seeds. 3, Grass fed off with cattle or sheep. 4, Potato Oats. 5, Beans drilled and dunged. 6, Wheat. Instead of oats, wheat is sometimes taken, and then the rotation is confined to four crops. This course peculiar to the parish, has been called the Dunbar system; but objections have been raised to it. Wheat every second year it is said, exhausts the soil; the answer is, that the food of plants in the soil may be exhausted by any kind of crop, while the soil itself cannot be exhausted. Where there is a command of manure, there is no system which will so richly repay the labours of the husbandman. It was adopted here, on one of the best farms, for many years, without any diminution either of quantity or quality; and in order to ascertain whether soil is injured by frequent crops of wheat, the glebe of Dunbar was properly dressed either with sea-ware, street-dung, or soot, and cropped with wheat for five successive years. The result was, an extra crop every year, and the land left in such a condition that it may produce a crop or two of any kind without additional manure. The least crop in the succession was on the third year, 10½ bolls per acre; it promised to be the greatest, but it was lodged flat as the surface soon after it came into ear. All the other crops in the succession were above 12 bolls per acre. One season, exactly suited to the soil, there were 16½ bolls per acre; and the last of the five years, crop 1834, there were 14 bolls per acre. It was ascertained that, on each of three of these years, there were more than three hundred stones of straw per acre. The soil is a sandy loam. There is another field in the parish which has produced oats four successive years, with increasing

produce and fertility. Hence it seems to follow, that land properly cultivated and manured may produce abundantly the same kind of crop in regular succession. If the food of plants is exhausted in exact proportion to the weight of crop produced, it is worthy of investigation whether the advantage of changing the kind of crop does not arise from one kind giving off food for another kind, but solely from the different modes of cultivation which different kinds of crop admit of at different seasons.'

"With regard to the Dunbar system, Sir John Sinclair, in his 'Husbandry of Scotland,' published in 1812, state that the late Mr. Hume, Eastbarns, whose farm was amongst the best in Dunbar parish, after practising this system for fourteen years, found that though by the force of manure he could grow abundance of straw, yet the grain at length turned out liker rye than wheat. In short, this rotation is very seldom pursued in East Lothian. To have a sequence of wheat, or, indeed any kind of culmiferous crop, is now generally reprobated, alternate husbandry, or the system of having leguminous and culmiferous crops to follow each other being the grand medium by which agriculture has attained its present improved state. To have five crops of wheat in succession may justly be termed 'too bad.' As to the food of plants, that is a subject on which the farmer does not trouble himself; but he knows that if he drain, clean, and manure his land in a proper manner, it will yield him as good a crop as the soil is constitutionally capable of producing, provided physical circumstances, such as heavy rains, excessive droughts, furious winds, and similar events, do not intervene, and prevent nature from performing her usual functions.—I am, &c.

"East Lothian, 9th Dec., 1835."

"N."

Here Sir, is an extract from the statistical account of the parish of Dunbar, written by a reverend gentleman well known to all of us—and, opposed to it, is the criticism of an anonymous writer, whom I cannot believe to be the person to whom rumour assigns it. The author of the "Statistical Account" describes a system of husbandry pursued in the parish of Dunbar, and his anonymous critic rebuts the statement, by telling us that the same system does not prevail every where in East Lothian! The former writer again states what he knows to be the practice of some agriculturists in his own neighbourhood, and the latter would beat him to the earth, by relating how one farmer found it to be for his interest to depart from that particular system.

Now, I think, Sir, I may safely challenge you to produce, from the dirtiest records of anonymous criticism, an attack more silly or unfair. Is it not exactly, Mr. Editor, as if you were to say that the cultivation of the hop-plant is found profitable in Kent, and I thought I could *dumbfounder* you, by gravely asserting that agriculturists could not grow it successfully in every part of Britain; or to deny that a certain course of mercantile enterprise, under particular circumstances, had conducted many to wealth and honour, because, forsooth, I could point one man who had failed from obviously not attending to some of the most important elements which enter into the calculations of every intelligent merchant.

It is not necessary that I should here defend the Dunbar system of agriculture. That it is practised successfully in the parish of Dunbar is a well known fact which should have secured the author of the Statistical Account of that parish from unfair criticism; and that the practise is found to be a good one cannot be questioned by any man who knows the

high rents paid for land in that parish—who has seen the luxuriant crops that wave over its fields—or who reflects on the number by whom it is approved, among a class of men who, for industry, intelligence, and respectability, will not suffer by comparison with any farmers in any parish in the three kingdoms. At the same time I shall feel much gratified if N will condescend to explain why he cannot perceive that the Dunbar system is alternate—that the author of the Statistical Account expressly admits the advantage of changing the crops—and that it is there proposed to ascertain correctly the cause of that advantage; but if N should be unwilling to go so far as to confess the weakness of his humanity—that an extreme desire to find fault was the cause of a temporary blindness—perhaps he will be pleased to point out how far, in respect to leguminous crops, the system he reprobates deviates so greatly from the more admired system pursued in the rest of East Lothian.

Having inquired, too, very particularly respecting that experiment at which N appears to be so greatly horrified, I found that the long series of abundant culmiferous crops had actually been obtained—that the qualities of the produce could stand a most favourable comparison with any corn of the same harvest, either in the barn, the mill, or the bakery; but I was also delighted to learn, that since the Statistical Account was written, a sixth culmiferous crop had been reaped off the same field, exceeding in quantity, and equal in quality, to any of the preceding ones. Yes Sir, that field, without any additional manure, yielded last harvest a culmiferous crop of *nineteen bolts* per acre. What N will say to such an astounding fact, I am at a loss to conjecture; for if his expression of "too bad," was applicable to the fifth culmiferous crop, I am sure his invention will be racked in order to find a term sufficiently expressive of his detestation of this further descent of the reverend experimentalist, into what, no doubt, will appear to N to be the unfathomable depths of agricultural depravity.

For my own part, Mr. Editor, I see nothing in this experiment that is erroneous in the process, or astonishing in the result. Agricultural chemistry, it is well known, is only in its infancy;—there is not a man, whose opinion is worth listening to, who will venture to say, in so far as the ground is concerned, whether vegetation depends most on the elementary principles contained in the earth, or on the texture of the soil, or on a fine, but to us, inexplicable combination of both. On the present occasion the experimentalist has attempted to obtain those elementary principles, or that texture of the earth in one way, which every agriculturist endeavours to arrive at by another. He appears to have succeeded; and that man must therefore appear truly ridiculous in the eyes of every disciple of the inductive school, who presumes to say that this experimentalist's appeals to Nature have been unwise, simply and solely because her responses to him have been so very favourable.

I am quite aware Sir, that however innocent or even laudable such attempts may be as those of the reverend gentleman to do good must appear in the eyes of many, they are eminently calculated to excite the deepest hatred in the hearts of all those "System Builders," who, like the Hercules of the olden time, are always disposed to write the *ne plus ultra* on the limits of their own narrow survey; and in that of the man, located on some upland dry hill, to which soil and climate forbid the Dunbar system to approach; but should N be in either or both of these predicaments, for his comfort I beg to remind him, that

his learned lucubrations may enjoy a respectable place on the shelves of those lunar museums, where, it is said, all things forgotten on the earth are carefully preserved; and that on his own bleak domains and amid all the beneficial changes made on the surrounding lands, no one will be angry with him for quietly adhering, as tenaciously as he pleases, to exploded errors and venerable follies.

I need not remind you, Mr. Editor, of a most eventful period in our country's history, when the present distress of our farmers, from the pressure of high rents and low prices, was experienced in a more than equal degree, by our merchants and manufacturers, from imperial edicts and continental rivalry. Nor is it necessary that I should recal to your recollection how our Liverpool and Manchester fellow-subjects triumphed over every difficulty, enriched themselves, and assisted so greatly to save their country, by casting aside old theories of commerce, bursting into new fields of enterprise, and trampling on those barriers which the system-mongers of other days had laid down as the boundaries of the mechanical powers, and the utmost limits of the English mechanist's invention; but I hint at those times, and at the struggle and the triumphs of the merchants and manufacturers of those days because, under an impression that the energies of Nature are inexhaustible in all her departments, I verily believe that along a similar path, marked out by well-conducted and *honestly* appreciated experiments—at as great a distance as may be from the "Systems of Husbandry" for 1812—and as near as possible by the side of the "Food of Plants"—our justly much valued agriculturists are in like manner to achieve for themselves that comfort and prosperity which they are so richly entitled to arrive at and enjoy.

East Lothian, Dec., 1835.

O.

### THE AGRICULTURAL QUESTION.

It is really surprising to what an extent the real state of this most important question still remains under great misapprehension; but this arises from a want of understanding of the various facts connected with it, and of the legitimate inferences which these would lead.

"No tampering with the currency" is the general cry; but this is neither desirable nor necessary. It was the Bank Restriction Act of 1797 that most seriously depreciated the currency, and by 1819 the act had become indispensable, by which cash payments were again restored. But was not the currency undermined by the act which took away the silver standard, leaving only one in gold? We had formerly a double standard of cash payments, as other nations also have still; and when gold had become scarce, credit was firmly upheld, and sudden panics and runs on the bank counteracted, by payments *in silver*. It has been repeatedly found, that in such circumstances even the Bank of England was pressed, for want of a silver standard, of fixed value compared with gold; and if this were again restored, it would prevent much evil, and enable the banks to issue freely and with safety to all concerned.

Then if banks of issue were permitted to associate with any number of partners, all responsible to the extent of their property for the notes issued by them; and if such banks were to give public security before issuing, and to be restrained from over issues by the stamp office, these measures would further secure the public interest in that part of the currency which consists of bank-notes.

And how is it that these measures of safety to the public and security to the national credit have not been adopted, so as to lead both to the solidity and extension of the general currency of the united empire, in conformity with the augmented population and the growing demands of manufactures, commerce, and agriculture? Here is the great desideratum.

It is our wise policy in respect of manufactures to protect those of the nation, and to encourage industry and persevering skill at home. We hear of the same policy as to agriculture, and yet the warehouses and capitals of merchants are taken up with Foreign corn, by which the best market is preoccupied with the produce of other nations, which has long supplanted British grain,—is now going to waste in the stores,—but is likely to come out surreptitiously on the public, in an illegal manner and unsafe condition, to the further and ruinous depreciation of the corn of the United Kingdom. Now, why is this permitted?—why are not the import dues on foreign corn, which are considered necessary to protect the agriculture of the kingdom, equalized and paid immediately on importing?—or at least, and in all cases, before taking out foreign corn in bond for any purpose whatever?

As to British grain, and especially to that grain which ripens in late bad seasons, when oats and wheat are liable to frost or mildew; and which has also the very high merit of coming with greatest advantage after the most beneficial system of improvement of the lands, and of introducing sown grasses with most competent effect, besides contributing most essentially to the morals and comfort of the people, in furnishing them with home-brewed ale and beer for private use,—it seems astonishing that barley should be taxed up to its full value when made into malt for these purposes, however the duties on spirits may be regulated.

But on these important subjects a few facts may be stated, which, on the Agricultural Question, are now urgently necessary. If these *facts* are settled first, by a general understanding, then a few *queries* would bring out the merits of this most important subject in detail, and lead to a clear and safe result. Now the *facts* are as follow—being made applicable to the County of Dumfries in particular, in order to be more easily scrutinized, and also because Dumfries-shire may be considered, in point of agriculture, as approaching to an average of British climate, soil, and husbandry—viz;

1st. The *Population* has increased in the last 80 years, computing from 1755, so as to have doubled.

The *Produce*, however, has fully more than kept pace with the population; and has been considerably improved, both in quality and variety also.

2d. The *Soil* of most of this County is let to farmers, and whatever the value of the lands may be, they are mostly to be considered as part of the farming capital.

The *Farm-houses* and other accommodations are also commonly paid for by land proprietors; and the amount of these, and of the value of the land, may fairly be considered as the landholder's part of that capital.

3d. *Live Stock* and *Implements* are the portion of that capital which the farmers have themselves to supply, along with the means of occupation and improvements for some time, until the returns come in.

4th. The *Land-rents* had risen rapidly till the peace, and the prices of land produce had given en.

couragement to improvement, and remuneration to all concerned it. But abatements of rent have been of necessity allowed by most landlords. Indeed, the present rents of land are about 20 per cent. lower than in 1814; and if they be any thing above the land-rents of 1808, it must be very little indeed,

A progressive rise of land-rents continued to take place in this county, with various interruptions, from 1656; but there is little or no rise for about 27 years.

5th. Nearly all the farm lands are enclosed and subdivided, and *in trim for a new start* in the improvement of the soil, if remunerating prices can be expected for the produce, and regular markets. But the warehouses and capitals of corn-merchants are pre-occupied with foreign produce in bond; and some of this foreign grain is in a state of deterioration, which it is proposed to take out and grind into meal and flour, to prevent it from being lost.

The Currency was very properly restored by the act of 1819 returning to cash payments; but the silver standard has been taken away, and gold only made the legal tender, instead of the double standard.

Banks of Issue are neither required to put in security, nor restrained from over-issues by the law and the public authorities; and the Bank of England hesitates to advance money on the bills of such Banks: and now does not such a state of things require serious revision?

6th. What has repeatedly happened may again occur. By subsidies, or payment of imported grain, or foreign loans, or investments in the mines or funds of other nations, or by remittances to our countrymen residing abroad, or by mercantile transactions when profit may be made—the gold of this country is liable to be drained away; and there is no agio, nothing to prevent it. The fact is also now regularly published; and in such a state there is always a risk of some degree of panic, some run upon the Bank of England; the danger of which leads to call in and contract the Bank discounts and paper in circulation; and the inevitable consequences are a diminution of the prices of labour and necessaries, and of all the returns of the productive classes. Now, in such a state, when in fact there is not gold enough to answer the demand, a silver standard combined with the gold would effectually prevent all these evils, and even the dread of them. It was a rash and ill-advised measure to prohibit so valuable an auxiliary in support of the national credit and currency; it is essential to both that we return to it.

7th. Common sense will lead to the conclusion, that, if any start in the prices of agricultural produce continue to go to foreigners or to corn-merchants, and the treasure of the kingdom go abroad in payment of foreign corn, the agriculture of the united kingdom is not treated with proper favour, nor even with fairness; and this objectionable system tends to lessen the home produce, and to hurt the state of our exchange, all under the childish illusion, that the treasure thus exported may enable foreigners to purchase our manufactured goods, though they are generally decided against this system; and the greatest manufacture in the kingdom is thus sacrificed to the senseless hope that other manufactures may partly gain, perhaps, in some degree in the course of events—a hope on which foreign courts have themselves put a seasonable extinguisher.

8th. The County of Dumfries-shire contains 644,385 acres English measure, one-third of which has been

at some time in culture, and one-fourth of which is now laid out into fields and farms, enclosed mostly, and subdivided for cultivation. The landholders allow the soil, and the farm buildings, as their part of the agricultural capital; and the amount of these, moderately computed, is equal to five and a half millions sterling; on which they certainly do not draw, of yearly rents, much, if any, above two hundred thousand pounds, liable to various burdens which reduce the returns very considerably, not leaving, it is believed, above three per cent. of the value of the lands and houses, their portion of the farming capital of this important county. They have reduced the rents by abatements as above stated, 20 per cent. in the last 20 years; and the question is, how far they can still be called on to reduce farther, if an improvement of the currency, by more ample security in the standards and in the issues, be possible?

9th. The farmers' proportion of agricultural capital is moderately computed for the whole county of Dumfries, at one million sterling; and all is ready for proceeding vigorously in the course of improvement for the great advantage of every class and every interest in the united kingdom; only let them have fair play in the sea ports; give them a secure and extending currency to answer the growing demands of the kingdom: repeal the most injudicious taxes on malt, so far as used for private consumption; raising, if necessary, the duties on spirits, &c.; and by this repeal extending the culture of barley, and relieving that of wheat, now overdone; and the agriculture of the united kingdom will be relieved without hurting any other interest, but rather to the benefit of all of them.

10th. It may be asked here, how we are to make up for the want of the malt duties? and government has itself answered this question, in practice: for it lessened the burden of interest on the national debt, when matters were not so favourable as now, by reducing the navy 5 per cent. to 4 per cent. stock; of course giving the fair option to accept, or be paid off: Now, why not carry this measure farther, when the banks allow only two per cent. on deposits? This would make some provision for the deficiency; and if not enough, why not endeavour to prevent some part of the enormous expense incurred by the nation, by a heavier tax on tobacco and other foreign luxuries? It is really a miserable aspect that is presented to us, in the annual expenditure of the poor for a poisonous weed, rendered necessary only by vulgar and filthy habits—the amount not being much, if any thing, below the whole of the malt taxes; or what may excite astonishment, not much below the whole provision for the poor of the united kingdom. It would do honour to any government that would look into this state of things—taxing luxuries of all kinds, and foreign produce, except in so far as the materials of useful industry are concerned, or the health and comfort of the people.

11th. The union with Ireland has hitherto done no good to Scotland or England, and especially to Dumfries-shire; and it never will nor can do good to either of the three kingdoms, till a firm and strong government enforce the laws, restoring peace, and allowing capital and industry to settle in that rich and populous country. Till this is done, there is nothing done there; and the agriculture of Britain must continue to be discouraged by its connection with Ireland, instead of that mutual benefit and support which the union should afford.

ADMIRAL.

5th January, 1836.

**THE FLOCK - MASTER'S COMPANION  
AND SHEPHERD'S GUIDE,** by a PRACTICAL SHEPHERD. Whittaker and Co., London.

The following extract will be read with considerable interest and benefit at this particular period; every master should furnish his shepherd with a copy; it may be the means of saving him many pounds during the lambing season.

**THE LAMBING SEASON.**

All breeders of sheep should be provided with a suitable fold-yard for their ewes during the winter season, and the time of bringing forth their young, with a hut at one corner, for the shepherd, in which should be a fire-place, as the shepherd ought to be in attendance at night as well as at day, during the lambing season, in case of accidents, wrong presentations, &c, which is often the case, and for want of assistance both ewe and lamb may be lost. The shepherd should also be prepared with proper things to make some nourishing gruel, such as the following:—

Take—Boiling water, two quarts;  
Oatmeal, two ounces;  
Common gin, three ounces;  
Powdered ginger, half an ounce.

To be made in the form of gruel, and the ewe to have half a pint twice or three times a day, when necessary, after a bad time of lambing. In cases where sheep are weak, &c. this is a good cordial, and the shepherd having a fire can warm it as he wants it. The shepherd should also have in readiness some of the following oils, in case an ewe should get torn in being roughly handled whilst extracting the lamb. When that is the case, the sheep should be dressed immediately, to prevent mortification taking place. The following oils will prevent it if applied immediately:—

Take—Linseed oil, one quart;  
Spirits of turpentine, half a pint;  
Oil of vitriol, one ounce;  
Tincture of myrrh, four ounces.

*Method of mixing*:—Put half the oil into a common brown pipkin that will hold twice the quantity, then add the vitriol, and stir it up with a stick, and put in the turpentine, and then the rest of the oil, and the tincture of myrrh, and stir it all up together; and when cold, put in a bottle for use. When these oils are used, let some be put into an old cup, and tie a small piece of tow or fine linen rag upon a small cane or stick; then dip it in the oils and anoint the parts torn. This is the finest thing that can be used amongst sheep or stock of any kind.

**NATURAL PRESENTATIONS.**—In all natural presentations, the nose and the toes of the fore feet are the parts which first come forward and present themselves. When this is the case, the ewe generally lams with ease and facility by herself, although in some cases assistance is necessary.

In the shear-hog, it being the first lamb, the passage is narrow, and some assistance may be occasionally necessary; but it should be done by a person who understands such business. *Ewes should never be meddled with unless absolutely necessary,* and then it should be done in a cool deliberate manner.

**UNNATURAL PRESENTATIONS.**—In unnatural presentations great care is requisite, as the life of the ewe is at stake. Various are the ways in which lambs present themselves; the following are some of the most common, with the mode of proceeding in such cases:—

1. When twin lambs are in such a state as to come forward at the same time, the ewe should be placed upon that side where the lamb is least advanced, by which means it will be pushed back with more ease, and the other lamb more easily brought forward and extracted; but in all cases, the operator should not be too ready in lending his assistance, but give the ewe time, as nature will accomplish what art cannot.

2. When the lamb presents the hind legs first, which is often the case, it is best to take the lamb away in that situation, without attempting to turn it.

3. When one foot presents itself, with the other and the head back, put it back gently, and get the other foot forward, then the head, and leave the ewe a little while to herself, and she perhaps will lamb, if not, it must be carefully taken away.

4. When the head presents itself with both feet back, the head must be put gently back, and the feet brought forward, one at a time, then all will be right.

5. When the feet present themselves without the head, the feet must be put gently back with one hand, and the head brought forward with the other.

6. When the shoulder presents itself, the ewe must be a little raised in the hind quarters, and the lamb worked gently back with the hand, till you can get hold of one foot, then bring it forward and get the other foot, and lastly the head, then take away the lamb gently, but do not pull unless the ewe is in pain.

7. This is a dangerous presentation, and requires a skilful person to get the lamb away. When the side presents itself, it may be discovered by feeling the ribs, the back, the belly, and by the soft yielding substance of the part, and the falling down of some portion of the umbilical cord; here the operator should endeavour to get the hind legs forward, if possible; this must be left to his judgment. But if the hind legs can be got forward, it is the best method of getting the lamb away, and which is recommended in all such cases, as the hinder parts of the lamb are the smallest.

8. It happens sometimes that the lamb must be taken away by pieces, which must be done with a blunt pointed knife, and a small hook, which is afterwards introduced to catch hold of the divided portion, which is to be brought gently away; the hind part of the ewe should be raised during the operation, by which it will be performed with greater ease.

9. Where there is a dead or decayed lamb, it should if possible be extracted, although, in some cases, it is left to rot away;—this is highly improper, and detrimental to the ewe.

10. When twin lambs, it sometimes happens that the feet of one and the head of the other present themselves, which are mistaken as belonging to the same; this may be easily found out; by pulling gently at the feet great resistance will be felt, then if the ewe be held with her head to the ground, and the hinder parts a little raised, an alteration will instantly take place, and the lamb which presented itself with the feet, will drop back, whilst that with the head will come forward, and the lambing take place in a proper manner.

**CAUTIONS.**—The natural position of the lamb presenting itself, as well as the unnatural, is now described, so that it may be easily discovered whether the lamb presents itself right or not. It is therefore recommended in all wrong presentations, that are at all critical, the taking the lamb away backwards, that it is with the hind feet first.

It is further advisable in all cases where lambs have come in a wrong position, and have need of assistance, the practice of taking the lamb away backwards, as the two hind feet only, are to be got forward; whereas in attempting to bring the lamb forth by the head and the fore feet, the former is liable to turn back, and cause much difficulty, when there seldom is any in bringing it away backwards, it being so much smaller in the hind than in the fore parts.

Observe, in assisting to bring away the lamb backwards, to pull straight forward, but remember, that when assistance is required, and the lamb in a natural position, that in drawing of it away, you should pull in rather a downward direction, to the udder part of the ewe.

Using rams of the most approved kinds, with smaller and finer heads, in the breeding of lambs, as also not letting the ewes get too full of condition previous to their lambing, and keeping them on succulent opening food, will enable them to lamb with more ease and freedom.

**AFTER-PAINS, HEAVING OR STRAINING.**—This is a complaint to which the ewe is very liable, and frequently proves fatal; it mostly happens in ewes that are fresh and in high condition, and is caused by the irritation and contraction of the uterus, as the same pain which nature uses to expel the lamb, occasionally continues for some hours, or even a day or two; in which case the parts mostly receive great inflammation and mortification, which is generally brought on sooner or later, according to the extent of the injury the parts have received. It has frequently been known that ewes in this state have been kept alive a long time, the wind being in the north, and they have perished the moment it changed to the south. You may frequently know ewes to be lost by removing them suddenly from poor to rich keep. Though they have lambed without any assistance, they afterwards are seized with heaving pains; this sufficiently proves the impropriety of keeping ewes too full during their lambing; but from whatever cause this may happen, the best mode of relief is to anoint the *vagina* with the oils recommended previously, and administer the following drink twice a day:—

Take—Tincture of opium, one drachm;  
 Infusion of carscarilla, three ounces;  
 Camphor, half a drachm.

**FALLING DOWN OF THE UTERUS.**—This accident occasionally happens after a difficult delivery. The pain is so great as to force part of the uterus out through the orifice of the shape, so as to fall down. This complaint is well known to experienced shepherds; the parts must be returned as soon as possible, and properly confined by means of a bright wire staple about one inch in the square; this is to be sharpened at the point, and forced through both sides of the shape, and the two ends turned with a pair of pliers, similar to a pig's ring, as this will keep it in its proper place. At the end of a week this may be taken out, and the ewe marked, so that after she has brought up her lamb, she may be fattened, as it is not proper for such ewes to have lambs again.

**THE DROPPING OF LAMBS.**—In some cases when lambs are first dropped, they appear as if quite dead, then the lungs should be immediately distended with fresh air, which may be done by opening the lamb's mouth, and blowing into it with your own. On dropping, the ewe should be suffered to lick them, and let the lamb suck, or if too weak, it should have ewe's or other milk given to it, being left in sight of the ewe. When the lamb droops or hangs its head, it is a bad sign. The twin ewes, after their

lambs can walk, should be removed to their pastures, as they should not be too much crowded.

**SUBSTITUTE LAMB.**—It is not an easy matter to deceive the sheep, although it is done by different arts and devices, which are highly necessarily; as some lose their own lambs, and a foster lamb is then requisite, as well for the ewe as the owner. In doing this, rub the head and different parts with some of the slime from the ewe or dead lamb, then take off the skin and fix it upon the foster lamb, put it to the ewe when hungry, and shut them both up in the dark, as the attachment will be sooner formed; but watch if the lamb sucks, as by sucking, the attachment of the ewe becomes greater. When that is properly effected, they may be turned to the rest of the flock; but when in the flock, see that the lamb does not stray away, as it may cause indifference in the ewe. The skin should be left on for some days, but the shorter the time the better, as injury may be done to the lamb by keeping it on too long.

**CASTRATING THE MALE LAMBS.**—This business is best performed when the lamb is about from four to six or eight days old, according to their strength. It is often done both at an earlier and later period, even from the day it is lambed to six months old. There are different ways of performing this operation. The general practice now, and it is believed the best, is by cutting off the end of the scrotum, the testes are then to be carefully sloughed or drawn out in a proper manner, and a few of the before-mentioned oils to be applied within the scrotum. The operation in this way is mostly performed by the shepherds. Should bleeding ensue after the operation, the best mode to stop it is by small pledgets of tow dipped in the oils, and forced into the orifice.

**SUPPORTING THE EWES AND LAMBS.**—As soon as the lambing season is over, and about all the lambs drawn or castrated, the most particular points are over; the ewes with their lambs should be put upon portions of warm dry land, where shelter is pretty good, and the state of the grass or feed favourable, so that they may meet with no injury from the severity of the season, or want of good keep. They should be disturbed as little as possible, as remaining quiet is of great consequence, for by this necessary care and attention there will be much less loss of lambs. It is also requisite to have supplies of early green food of the turnip or artificial grass kinds, as by these means the milk of the ewes is greatly promoted, a circumstance of material consequence, for if lambs are stinted at this early period, they never do so well afterwards. The best way is to have plenty of ryegrass, cole, rape, &c.; they then go from the rye to the water meadows, (if you have any,) if not, to the layers, being constantly in hurdles, with full room to fall back. You should have two or three hurdles with the slats upright, so that the lambs may run through with more ease to eat the tops of sweet morsels, before the ewes; by this means they will do well till they are weaned.

**WEANING THE LAMBS.**—This requires some nice attention, but is generally understood by sheep breeders, and requires but little to be said about it. It is generally performed when the lambs are about four or five months old, at which time they are taken from the ewes, and confined in a pretty good pasture, and the ewes put quite out of hearing, where they cannot disturb the lambs. They will be a little uneasy at first, but that will soon disappear. Their pasture should be fresh and good, and the lambs will proceed with their growth without receiving any check.

## A TREATISE ON THE NATURE OF TREES AND PRUNING OF TIMBER TREES.

By  
SILPHEN BALLARD, Simpkin and Marshall, London.

We subjoin the following extract from this unique little work, which should be in the possession of every resident in the country, interested in the subject:—

Mr. Thomas Baylis, who is well acquainted with the nature of trees, and by whom my attention was first directed to the baneful effects of pruning, planted a bed of about five hundred Pear trees, at Ledbury, in the county of Hereford. Sixty of these trees were left entirely unpruned; all the others were pruned, with naked stems, as trees generally are in nurseries. The sixty unpruned trees had no advantage in soil or situation; yet, on an average, their growth in a few years was at least three times greater than that of the pruned trees. The unpruned trees were much better formed, for transplanting into orchards, than the pruned ones; their stems were furnished with strong thorny branches; these branches, in addition to the other good offices they had performed and were performing, to enable the trees to outgrow the pruned ones so far, made excellent natural fences for each against injury from cattle. It is not my intention to enter into an argument about the management of fruit trees, this experiment with the pear trees is only mentioned to show that the opinion that pruning decreases the quantity of growth, has been confirmed by experiment; but I cannot refrain from stating my regret at the present deplorable state of the orcharding in this county. The great ignorance of the nature of trees displayed in the management of apple and pear trees, almost dismays me in the attempt to point out the errors that are fallen into by the cultivators of timber-trees.

The apple and pear trees, in this county, are generally rendered fruitless at an early age through ill-treatment. The apple tree, in particular, dies overpowered by the numerous injuries inflicted on it by its misjudging and officious cultivators. At a time of life when it should be in its greatest prosperity, it is falling to pieces with premature old age; its limbs are, one after the other, blown from its rotten trunk; and it may truly be said, that the apple-tree seldom dies a natural death, its death being generally occasioned by an accumulation of injuries.

**THE MUSHROOM STONE.**—It was sent to Mr. Thornburn, of Murth, from Calabria, in Sicily, with directions to give it a little water when it appeared dry, which was generally three or four times a week, in dry weather; and, in the course of a fortnight after I received it, a couple of mushrooms made their appearance, which grew to be very large; I think about nine inches in diameter. They were porous beneath, in place of gill, as in the common mushroom; consequently they appeared rather to be a species of *Boletus* than a species of *Agaricus*. However, they were of excellent flavour, and the ship captain who brought the stone home told me that it produced three mushrooms at sea, which he said were very fine. In three or four weeks after the two above mentioned were gathered, three or four more came up, and so on, for the first year. The second year it was not quite so productive; and, in 1833, my successor informed me that the mushroom stone was nearly exhausted. I think eight or ten of such stones would supply an ordinary family with mushrooms for two or three years.—*Gardener's Magazine*.

## STATISTICS OF DUMFRIES CATTLE MARKETS.

(From the Dumfries Times.)

“We take the merit this week of presenting to the public the annexed interesting view of the Dumfries cattle market transactions during the last three years, on the general accuracy of which the fullest reliance may be placed.

*Number of cattle shown in Dumfries market from January 16, 1833, till December 30, 1835—*

1833.—Total number shown, 46,364; deducted, supposed to have been twice shown, 1-5th part, 9,272; leaving actually sold, 37,092, which, at an average of 6 <i>l</i> , 10s per head, amounts to £240,098	
Passed through from Galloway for the South without stopping at Dumfries, 5,692, which at an average of 8 <i>l</i> , 10s per head, amounts to .....	£48,382
Total, .....	£289,480
1834.—51,304, deducted, supposed to have been twice shown, 1-5th leaving a total actually sold of 41,044, which at an average price of 6 <i>l</i> per head amounts to .....	£246,264
Passed through from Galloway for the South without stopping at Dumfries, 4,309, which, at an average price of 8 <i>l</i> . amounts to .....	34,472
Total, .....	£280,736
1835.—46,640, deduct, supposed to have been twice shown, 1-5th, leaving a total actually sold of 37,312, which, at an average of 4 <i>l</i> , 15s per head, amounts to .....	£177,232
Passed through from Galloway for the South, without stopping at Dumfries, 3,650, which, at an average price of 6 <i>l</i> , 10s per head amounts to .....	£23,725
Total, .....	£200,957
1833, .....	£289,480
1834, .....	280,736
1835, .....	200,957
	£771,173

“The cattle actually sold in Dumfries market during the last three years, thus appear to have yielded no less a sum, even at the low price quoted, than £771,137 sterling. From the tables it will also be seen that the value of the cattle which passed through the town of Dumfries on their way to the south, without stopping or being sold in the market, during the period, would amount to £106,579—making a total of £877,752.\* This is altogether exclusive of the value of the immense quantities of stock sent to the south from the ports of the district by steam conveyance, and by land by the different roads eastward of Dumfries, besides the great numbers sent to the Edinburgh, and Glasgow, and other northern markets. The value of the black cattle exported from this district therefore, during the period mentioned, may be safely estimated at fully one million and a half of pounds sterling.”

\* Our contemporary has fallen into a numerical inaccuracy in adding the assumed value of the cattle driven through Dumfries to the sum of £771,173, in which sum, by his own showing, it is actually included.



We will not differ from our contemporary in regard to the number of cattle exposed for sale in the Dumfries market in the course of the three years to which the above extract refers,—and thus far his statistics may afford some information to the general reader,—but we are much inclined to differ from him in regard to some of his hypotheses, and some of the conclusions to which he has arrived. He sets out, as the reader will observe, upon the supposition that not more than one-fifth of all the cattle shown have been shown twice. Now, if any one will for a moment reflect upon the frequency with which the words “a considerable number remained unsold,” or words of similar import, have been used in the weekly reports, and take into account that by the jobbers who have pasture at no great distance from town, many cattle are exposed not only twice, but three or four times, or perhaps still oftener, before they are sold: and still further, take into account that grazing cattle passing from one jobber to another, or to some of our more speculative farmers, are often sold several times in the season, he must, we think, come to the conclusion that not nearly four-fifths of the number shown have been sold only once and exported from the district. Besides, how many of those sold are young cattle bought to supply the place of more aged stock, and actually not sold for exportation for twelve months, or perhaps two years from the date of the purchase? We have no proper data to go upon to say with certainty the real proportion between those exposed for sale and sold for export; but had our contemporary assumed three-fifths instead of four-fifths, we suspect he would only have been approximating to the truth.

There is another circumstance in our contemporary's report which particularly calls for attention,—that is its total silence in regard to the number of cattle sold or exported which are not bred within the range of country to which the report refers. How many of them, we would ask, are Highlanders, either grazed in the locality only for a season, or driven direct from the north? How many of them are Ayrshire cows, Irish cattle, or some other breed? In short how many of them cannot be considered as cattle drawing wealth into Dumfriesshire or Galloway? Where, then, taking all these circumstances into account, is the million and a half obtained by this district for cattle exported from it within the time specified.

One word more with our contemporary upon this subject. The last published statement of the annual value of land and houses in the different Counties in Scotland which has come under our observation, makes Dumfriesshire £295,000, the Stewartry of Kirkcudbright £213,000, and the county of Wigton £143,000—in all £650,000 per annum. Now if the whole annual value of lands and houses in these Counties is only £650,000, does it stand with reason that its produce—not only exclusive of all the black cattle that are consumed in it, but exclusive also of sheep, swine, and grain—is nearly the amount of the whole value. Making every reasonable allowance for the sums requisite beyond rent to carry on farm expenses, this surely is a statement that cannot be received without stronger proof than our contemporary has adduced.

But granting for a moment our contemporary's conclusions about the million and a half, we would ask him how he comes to another conclusion in the same article, though not in the part we have quoted, namely, that the agriculturists are struggling in difficulties. Surely if black cattle alone yield nearly the amount of the value of the land they possess, their distress cannot be great! It is, however, in our contemporary's conclusion as to the value of the cattle

sold for export—not the distress of the agriculturists—that we chiefly differ from him, though even in the alleged distress of the agriculturists we think there is more said than merits implicit belief. Of this perhaps more anon.—*Dumfries Herald.*

## AGRICULTURAL ASSOCIATION.

(From the Scotsman.)

We have great pleasure in publishing the following letter addressed by Sir George Mackenzie to the Secretary of the Agricultural Association. It proves what we anticipated, that many gentlemen who are anxious to see the agriculturists raised from their depressed condition, resolutely disclaim all connection with the wild scheme of debasing the currency.

“Edinburgh, Jan. 10, 1836.

“Sir.—I have been prevented by various circumstances from writing to you sooner, in reference to the proceedings of the Central Agricultural Association. My object in becoming a member was to assist in obtaining, if possible, a Committee of the House of Commons to inquire into the real cause of Agricultural distress, without troubling itself with the proposal of a remedy until the cause was clearly brought forth. I find, however, that it is taken for granted by the promoters of the Association, that nothing can relieve agricultural distress but a change in the currency. Since I last wrote to you, I have paid more attention to the matter than I had previously done, and am now satisfied that such a change in the currency would not relieve distress; and would besides, do much harm to the country generally. I have tried the experiment for the last five years, of proportioning rent to the price of produce; and my tenants have no complaints to make. They are busy improving their farms, and reclaiming waste land; and are envied by all their neighbours who pay fixed rents. I am, therefore, entirely of opinion that it is the true policy of landlords not to attempt to bolster up rent, but to reduce it to a level with other things in the manner I have done; and that nothing else can relieve the agricultural interest. As every thing is lowered in price, so also ought land to be lowered; and let the landlords live within their incomes, and cease to regard superfluities as necessities of life. I have therefore now to request that you will withdraw my name from the list of the members of the association; and I have the honour to be, Sir, &c.

“C. S. MACKENZIE.”

“R. Montgomery Martin, Esq., Sec., &c.”

We are glad to observe, from the following abridged account of their proceedings, that the Highland and Agricultural Society of Scotland steadily adhere to their rule to exclude political subjects from their discussions. The society lately formed in London, calling themselves the Central Agricultural Association, is neither more nor less than a combination, formed with a view to effect a change in the currency.

## HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND.

The Anniversary Meeting of this National Association was held in their Hall, on Tuesday Jan. 12, at which there was an unusually full attendance of the members, including a large proportion of the noblemen and gentlemen of rank, property, and influence at present in Edinburgh and the vicinity. The Most Noble the Marquis of Lothian, Vice President, in the chair, supported by the Earl of Morton and the Earl of Glasgow.

The society, as the first business in the order prescribed by the charter, proceeded to ballot for the admission of new members, when the following, with many others, were duly elected:—The right hon.

Alexander Lord Elibank, the hon. Roger Rollo, Sir Charles Lamb, of Beauport, Bart., Robert Blane, Esq., Grougar, 2nd Life Guards, Edward Ellice, Esq., yr., of Ardmellie, Charles Henry Forbes, Esq., of Kingerloch, Alexander Carmichael Gibson, Esq., yr., of Castle Craig, William Hunt, Esq., yr., of Pittencrieff and Logie, Richard Trutter, Esq., of Haplaid, advocate.

SIR JOHN STUART FORBES, Bart., the Treasurer, submitted a most distinct and satisfactory view of the funds of the Society, and of its income and expenditure during the last year, under every head of charge, from the detailed report and state audited by Mr. Russell, the Society's accountant. The premiums awarded during the year exceeded 1,200*l*.

Thereafter the Treasurer noticed, that an application had been made on the part of the Society to his Majesty's Government, with a view to obtain assistance from certain funds at their disposal, applicable to purposes in Scotland. The Society's claim rested entirely on the public utility of its objects, and the manner in which its funds were appropriated. These had been fully recognised by the Government—the Chancellor of the Exchequer, at the interview the Secretary had with him, had given attention to every detail, as had Mr. Stewart, M.P., one of the Lords of the Treasury, a member of the Society, within whose department the application immediately came; the Treasury minute in reference to it, is expressed in the most favourable terms, and there seemed now no doubt that some assistance would be soon obtained. This would be of much consequence, looking to the great falling off which had taken place in the revenue of the Society, owing to the reductions in the rate of interest.

The Honorary Secretary gave a concise report of the proceedings of the Directors, and the premiums awarded by them since the half-yearly meeting in July. Since their meetings were resumed for the season, the Directors and different committees have been occupied in determining on the claims for the premiums offered by the Society for competition, in the year which has just expired. As the names of the successful candidates will be forthwith published in the newspapers, it was unnecessary, the Secretary observed, to advert now to the premiums in detail. They have been awarded in most departments of the practical agriculture of Scotland; and it is gratifying to observe, that the competition progressively increases. In the year 1835 there was six hundred and seventy nine individuals who had entered the list as competitors. Were we further to take into computation the practical ploughmen who had competed for the Society's Medal to the best ploughman at thirty eight competitions, reported within the year by the Society's resident members in the different districts—(fifty or more ploughs having started at many of these competitions)—the competitors, instead of six hundred and seventy nine, would be nearly treble that number.

LORD GREENOCK, Chairman of the Geological Committee, reported the proceedings of that committee.

DR. NEILL said, that he had been requested to announce the decisions of the Committee appointed to examine into the merits of essays, reports, and communications submitted to the Society in the course of the year, on subjects connected with woods and plantations, and on various subjects relating to husbandry and rural improvement. In a very interesting statement, in which Dr. Neill detailed the merits of the communications, he noticed that the premium of twenty five sovereigns, or plate of that value, had been awarded to Mr. Lawson, the Society's seeds-

man, for having raised and sold the greatest number of plants of *Larix Communis*, or larch fir, from seed procured from healthy native trees in the Tyrol or other regions of the Alps, to which it is indigenous. Dr. Neill gave a variety of very interesting details upon this subject.

The Secretary brought up from the Directors the following Resolutions, which were thereupon moved by Admiral Sir David Milne, seconded by the Earl of Morton, and unanimously adopted.

Resolved,

1st. That the thanks of the Society be given to the most noble the Marquis of Tweeddale, for his attendance at the late general show of live stock at Ayr, and for the energy and zeal displayed by him in forwarding the objects of the Society on that occasion.

2d. That the thanks of the Society be given to the Lords Lieutenants, Vice Lieutenants, and Conveners of the counties of Ayr and Wigton, Renfrew and Bute, and to the other Noblemen and Gentlemen of the Committee who officiated at Ayr, for their active co-operation in carrying into effect the wishes of the Society and the purposes of the meeting.

3d. That this Resolution be conveyed to Thomas Francis Kennedy, Esq., of Dunare acting Convener of the Local Committee, with the expression of the obligations of the Society for his personal exertions, through which the arrangements for the meeting were followed with such complete success, &c.

The Earl of GLASGOW, as Lord Lieutenant of Ayrshire, expressed his acknowledgments for the resolutions now adopted, and for the patronage conferred by the Society in the district on the occasion referred to. Ayrshire had not shown itself insensible to that patronage, and when the Society next visited the district, the advantages of their support would be found to have been realized in a considerable degree.

MR. CHARLES FERGUSSON said, in reference to the mention which had been made of his name, in connection with the gratifying success which had attended the Ayr show, that few situations could have been more agreeable to him, from the personal and local interest which he necessarily felt in the recent visit of this society to the county of Ayr, than to have acted as chairman of the directors upon that occasion; and he was happy to think that the anticipations which had been founded on the energy and zeal that belonged to the county, had in no degree been disappointed. He was, moreover, happy to take this opportunity of stating, that the immediate effect of the Society's late patronage had been, to originate a General Agricultural Association for the county of Ayr, on the model of this national Society, from whose exertions he could not doubt that very beneficial results might be expected to accrue.

MR. FERGUSSON reported from the Directors, in reference to the general show which takes place at Perth in the ensuing autumn, that everything relating to the adjustment of the premiums and conditions of competition had been arranged.—Fifeshire gentlemen have obtained the additional premiums they requested, and appear determined to shew what may be done with the peculiar breed of their district at a comparatively early age,

MR. NORMAN LOCKHART reported that the preparatory arrangements for the general show of live stock fixed to take place at Dumfries, in 1837, had been matured, and that the premiums had some time ago been published for the information of intending competitors and the public. These premiums are on a scale which does high credit to the counties of Dumfries, Kirkcudbright, and Wigtown, not less for their liberality than for the promptitude with

which the district had come forward with the auxiliary funds for this their second meeting. Some suggestions had been received for additional premiums for certain classes of sheep, which would receive the immediate attention of the Directors. Mr. Lockhart added, that a local Agricultural Association was also in course of being formed in this district, which would be in full operation by the time of the Society's visit in 1837, and that their cordial co-operation in the business of the show might be expected.

Professor Low said, that he had been requested, and that he had pleasure in complying with the request, to state, that application had been made for a general show of live stock at Inverness. This application had come, in the first place, from the Lord Lieutenants of the counties of Inverness and Cromarty, the Hon. Colonel Grant of Grant, and Mr. M'Leod, member of parliament for Sutherlandshire. But the Directors had been, at the same time, apprised that a requisition to the like effect was in the course of extensive signature by the proprietors and tenants of the northern counties. Professor Low stated that he had a sincere gratification in making this statement, because it was the evidence of the value attached to the Society's exertions in this branch of rural improvement, and of the desire that existed of seconding those exertions in a part of Scotland in which the Highland Society, from its very constitution, must take the warmest interest.

The meeting warmly recognised the claims of Inverness to a priority of consideration as soon as the standing resolutions allowed.

Professor Low then stated, that as chairman of the committee for superintending the society's publications, he availed himself of the opportunity presented to him of expressing the gratification felt by the committee on publications, at the state and prospects of this branch of the society's labours. The papers on every branch of rural economy received and published by the society under the name of Transactions, continued, he was happy to say, to increase in number, variety, and interest. And in place of the doubts which once existed as to the means of the society to supply materials for a Quarterly publication of their Transactions, the doubt now was, whether these materials could be comprehended within the limits hitherto assigned to them.

Professor TRAILL was charged by the Directors to lay before the society a communication from the Duke of Buccleugh, being the first report made to his Grace, of the experiments at the agricultural garden established by his orders at Dalkeith Park. This communication is made in consequence of a request at a general meeting in July, that the Duke would do the society the favour of giving them notice of the results from time to time, for the information of the members, and to be given to the public through the medium of the society's Transactions. The Professor noticed some of the more remarkable facts appearing from the present report—among which the Italian rye grass was conspicuous—it arrives at maturity sooner after sowing than any other perennial grass—its produce is nearly double that of common rye grass, and, in 1831, it ripened two crops of seed. The cordial thanks of the meeting were voted to the Noble Duke for this interesting communication, and for his readiness on all occasions to promote the objects of the society, and the best interests of agriculture.

Mr. ROBINSON, Secretary of the Royal Society, chairman of the committee on machinery, reported the different articles which had been brought before them; several appeared to them to possess consider-

able merit, and to be deserving of reward from the society.

Subsequent to the last meeting of the committee, a communication has been received from Lord Willoughby de Eresby, with a model and description of a machine for compressing peat, invented by his lordship, accompanied by certificates from persons who had used the fuel resulting from it, and who had found it applicable to the use of the smith's forge and other purposes. There has also been received a machine on a new construction, by Mr. James Newbigging, at Crosstore, adapted to the draining of bogs and meadows, by supplying a declivity, where, owing to the flatness of the surface it is otherwise unattainable. The merits of these machines will be considered by the committee at their first meeting.

Mr. HORNE of Langwell, from the committee on the veterinary school, mentioned that, from the official report of Mr. Dick, the able and zealous lecturer, the attendance at the present session has been greater than any preceding. There are sixty-four students, twenty of whom are practical men; and of these one is from New York, one from London, and one from Lincolnshire, showing that the benefits of the school are not confined to Scotland.

The SECRETARY read a letter from the Marquis of Tweeddale, expressing his regret at being unable to attend the meeting, having to preside at the Quarter Sessions at Haddington. His lordship suggested some points connected with the draining as meriting investigation.

ESTABLISHMENT FOR 1836.

PRESIDENT.

His Grace the Duke of Gordon, G. C. B.

VICE-PRESIDENTS.

The Most Noble John William, the Marquis of Louthian.

The Most Noble John the Marquis of Breadalbane.

The Right Hon. Randolph, Earl of Galloway.

The Right Hon. Thomas Robert, Earl of Kinnoull.

Sir John Stuart Forbes of Pitsligo and Fettercairn, Bart., Treasurer.

R. Macdonald Seton, Esq., of Staffa, Hon. Sec.

Charles Gordon, Esq., of Drimmin, Secretary.

Claud Russell, Esq., Accountant.

The Very Rev. George H. Baird, D. D., Principal of the University of Edinburgh, Chaplain, &c.

BERWICK-UPON-TWEED.—EXPORTS.

GRAIN SHIPPED, THE YEAR COMMENCING 1ST SEPT.

Year	Wheat qrs.	Barley qrs.	Oats qrs.	Rye qrs.	Beans qrs.	Peas qrs.	Bags.
1820	27,729	6,867	28,662	58	999	25	36,019
1821	59,274	11,497	48,630	160	1,553	90	39,009
1822	64,866	4,215	34,624	270	1,803	475	31,564
1823	34,417	7,320	42,456	402	814	5	31,180
1824	58,729	31,082	45,887	391	1,645	483	39,062
1825	32,976	33,040	27,644	1,118	1,182	208	30,676
1826	34,219	22,890	9,268	434	533	327	28,256
1827	25,777	27,900	15,113	556	1,461	423	28,110
1828	19,175	42,647	45,012	1,099	934	438	29,021
1829	22,271	23,859	28,280	625	1,383	551	27,798
1830	16,396	32,699	32,947	329	2,199	234	25,168
1831	28,248	23,962	14,713	417	1,670	4	29,170
1832	20,486	32,101	22,978	587	2,862	404	29,544
1833	19,730	32,461	33,571	596	4,311	115	24,634

The item "bags," each containing twenty stone, consists of flour, oatmeal, and groats, and manufactured barley. The imports from foreign countries consist principally of timber, and a little iron, hemp, and flax, and bones for manure.

## CENTRAL TITHE ASSOCIATION.

On Tuesday, Jan. 12, a meeting of this association was held at Brown's Hotel, Palace Yard, Westminster. C. E. BRANFILL, Esq., of Uppminster Hall, Essex, in the Chair.

The CHAIRMAN stated, that at a meeting held at the same place in May, 1834, composed of delegates from the different counties, at which meeting several members of parliament were present, the association had been formed; and as there had lately been certain questions issued from the government to the different parishes on the subject of tithes, it had been considered expedient to call a meeting of the association to consider what steps ought to be taken against the assembling of parliament, which would soon take place.

The Secretary of the association, Mr. HAMILAN, observed that it was desirable, that the tithe-payers should join this association, which would be made a focus for concentrating their efforts, and a means of communication with the legislature in obtaining redress. The annual subscription from members was five shillings each, which would be found sufficient for the purposes of the association.

Mr. EAGLES, (Author of "A Legal Argument" on tithes,) proposed that the committee of the association meet once a month, and that a general public meeting be called soon after the meeting of parliament, of which due notice should be given; which was afterwards fixed for the 13th of February next. Mr. E. then drew the attention of the meeting to the distinction between the produce of land, and the produce of capital and labor; and contended that as far as tithes were made a claim on the latter, they were an infringement on both law and justice. If labor and capital were to be subject to tithes, why not tithe the productions of cotton mills, or any other manufactories which have been built on the land?

—BRADLY, Esq., said he was happy to be able to inform the meeting that district associations had been formed, and others about to be formed in Kent, and several other counties, the subject, he said, became every day more and more imposing. In many cases the tithes were completely absorbing the entire property of the parish. In the neighbourhood where he resided, the sum of ten shillings an acre was exacted, every year for tithe on farms which were let for several years at no rent at all, the titheman had virtually ejected the landlord. In one parish in East Kent, the adowson had been bought by the present incumbent for 900*l*, and he now takes 2,500*l* a-year for tithes. Such instances were not unusual, indeed such a state of things was past endurance.

A gentleman asked, whose valuation the 2,500*l* a-year was?

Mr. B. replied, Mr. Bearblock's.

Mr. COLGATE, (Author of a pamphlet intitled "Tithes, or no Tithes, that's the Question!") said that Mr. Adamson and himself attended as delegates from the Market Gardener's and Farmer's Society; having been appointed by that body to act in concert with the Central Tithe Association. No class of men were more punished by the operation of tithes than market gardeners and farmers near London, they employed a large portion of capital and labor on a small breadth of land, and consequently tithes operated as a tax on the produce of labor more than on the natural produce of the land.

A discussion then ensued, as to what ought to form the basis of a commutation; in the course of which it was contended with considerable force and ability, that land, and its natural capability of production, and not what might be expended upon it, or put into it ought to form the groundwork on which to fix a commutation: and that titling the stock in trade of the shopkeeper or manufacturer, would not be more unjust than titling the stock in trade of the market gardener, &c. The prevailing opinion of the meeting was, that any scheme of commutation at any thing like an equivalent to the present enormously overgrown claims for tithes, would be resisted as a monstrous attempt to perpetuate oppression.

## FLOUR MILLS IN AMERICA.

Amid the multitude of machinery with which the Genesee is studded, the flour establishments are conspicuous. There are now within the city of Rochester twenty-one mills, with ninety-five runs of stone, capable of manufacturing five thousand barrels per day. Twenty thousand bushels of wheat are daily required for these mills when in full operation. The immense consumption of the raw material occasioned by such an extensive manufacture, furnishes to the rich wheat-growing region around Rochester a ready market, while it draws considerable supplies from the shores of Erie and Ontario. Besides the wheat drawn from the surrounding country and from Ohio, some of the Rochester millers imported this year from Canada (subject to heavy duty) about 100,000 bushels.

Three of the above-mentioned mills have been erected this year, and considerable improvement has been made in some of the others. These three mills contain seventeen runs—which, with the seventy-eight runs in the other eighteen mills, form the total of ninety-five runs.

As has been remarked in the "Traveller's Guide," published by Davidson of Saratoga, "some of the Rochester mills are on a scale of magnitude unsurpassed in the world; all are considered first rate in the perfection of their machinery, and so effective is the whole flouring apparatus, that there are several single runs of stone which can grind (and the machinery connected therewith bolt and pack) one hundred barrels of flour per day!" And such is the character and extensive demand for the article, that, beside the quantity shipped for foreign countries, the "Rochester brands," may be seen equally at Montreal or Washington—at Quebec or New York—at Boston, Hartford, Burlington, or Bangor.—The total amount of capital invested in the twenty-one mills exceeds half a million of dollars (540,000) as was ascertained on a late accurate examination by Thomas H. Rochester, Esq., one of a Committee appointed by the Common Council to collect the statistics of the city. Williams' "Annual Register" for 1835 mentions the Rochester mills as only fourteen in number, with sixty-four runs of stone—but, by the statement here made, it will be seen that the mills are one-third more numerous, and the capital invested about double the amount given in the Register. The avidity with which mill property has been sought, and the additions made to it during the present season, indicate clearly the strong confidence of our citizens in its permanent worth.

The water-power of the two great falls at Rochester is estimated as equal to 1,920 steam engines of twenty horse power. The total value of this water power, calculated according to the cost of steam-power in England, is almost incredible to those unacquainted with such subjects—amounting as it would to nearly ten millions of dollars (9,718,272) for its annual use!

When in connection with this vast water-power we consider the great facilities which Rochester enjoys (by lake, canal, and river) for receiving wheat and other raw materials from, and shipping flour and other manufactures for, all desirable points either in the United States or the Canadas, we may more fully appreciate the importance of our present milling and manufacturing establishments, and confidently anticipate the continued prosperity and prospective greatness of the city.

## THE TIMBER TRADE.

We subjoin the following interesting table of the amount of the importations of timber and deals from all parts of the world into the port of London, during the year 1835, with the number of ships employed in the trade, and their amount of tonnage; to which is added the gross amounts of the gross imports of the ports of Liverpool, Bristol, and Hull, with the number of ships and their tonnage. The value of the timber trade to

the North American Colonies will, from the number of vessels and amount of tonnage, be duly estimated, since all the North American Colonial ports receive our home productions in exchange for timber or lumber. Compared with these advantages to the mother country, the loss of the timber trade with the Baltic and the North Sea must be obvious, as the results of our modern mock free trade system will, if fairly taken prove :—

From	Ships.	Tons.	Deals.	Ends.	Battens.	Ends.	Timber.				Oak Plank.	Larch Wood.	Fire Wood.	Wain- scot Logs.	From		
							Fir.	Oak.	Elm.	Loss of Teak.					Sierra Leone.	Tons.	
America .....	270	94,402	1,682,223	25,807	9,745	..	54,384	3,250	1,870	..	554	..	..	..	81	..	..
Mend .....	46	11,697	39,835	11,080	..	..	10,942	208	..	..	147	..	..	..	..	..	..
Panama .....	68	19,887	35,097	4,832	..	..	9,582	283	..	..	421	..	..	..	86	..	..
Petersburg .....	215	53,597	175,910	48,375	..	..	44,597	746	..	..	941	..	..	..	94	3,505	..
Norway .....	70	25,000	283,455	10,326	..	..	93,159	1165	..	..	..	..	..	..	3,123	..	..
Sweden .....	105	31,947	383,402	11,554	131,480	3,655	80	..	..	..	23	..	..	..	626	..	..
London—Total .....	801	236,500	1,930,922	112,056	278,981	4,946	79,605	3,741	1,870	14	2,086	3,820	3,586	11	3,883	4,585	..
Liverpool—Total .....	569	202,105	833,310	24,756	100,765	1,950	185,849	6,102	2,624	..	2,290	..	658	12	3,572	4,110	..
Bristol—Total .....	60	17,191	108,360	7,560	8,400	720	13,755	385	59	..	269	..	285	..	..	..	..
Hull—Total .....	464	135,678	1,155,840	126,960	246,960	4,680	43,770	1,282	444	..	1,293	..	2,080	..	..	..	..

TIMBER AND DEALS IMPORTED IN 1835.

BERKSHIRE AGRICULTURAL ASSOCIATION.

(From a correspondent.)

A respectable and numerous meeting of owners and occupiers of land took place at Newbury, on Thursday, 21st January. Besides the Chairman, William Mount, Esq., of Wasing House, we observed among the number, Robert Palmer, Esq., and John Walter Esq., two of the county members, Charles Eyston, John Thomas Wasey, William Budd, Edward Tull, Henry Tull, Richard Tull, Edward Goddard, Edward Brice Bunny, Hogan Smith Esqrs; Captain Dundas, R. N., Messrs. Job Laesley, William Clarke, George Bartholomew, John Twynam, and many other experienced and able agriculturists

The resolutions, which were moved by Mr. E. Tull, and seconded Mr. E. Goddard, were, upon a little alteration made in the second, passed unanimously.

Mr. Eyston seconded Captain Dundas in moving an amendment upon the second resolution, deprecating the agriculturists of Berkshire, putting themselves under the sole directions of the Central Board in London; these gentlemen thinking that a Berkshire Agricultural Society quite as capable of managing their own affairs, as being dictated to by the currency-mongers in London, or elsewhere. Able speeches were made by Messrs. Palmer, Walter, Eyston, Laesley, and Clarke, and Captain Dundas, as well also by the Chairman, and the mover and seconder of the resolutions.

A petition agreeably to the resolutions passed, was adopted, and is in the course of signature. The resolutions passed are as under:—

- RESOLVED.—1st. That in the present unparalleled distressed state of agriculture, it is thought desirable by this meeting that an association of the owners and occupiers of land, in the county should be formed for the purpose of representing more effectually their condition to Parliament, and of urging a general inquiry into the causes of such distress, with a view to their speedy and effectual removal.
- 2nd. That the "Berkshire Agricultural Association" unite with the "Central Society in London" as far as co-operating with them in any measure that the committee of the Berks Association may consider beneficial to the agricultural interest.
- 3rd. That a committee be formed, to consist of twenty with a chairman, which shall be empowered to form district committees, and draw up such rules and regulations for the constitution and guidance of this society, as may be deemed necessary.
- 4th. That a subscription of not less than five shillings be paid by each member on his admission to this society, to defray the necessary expences. No subscriber to be eligible to be a member of the committee, unless his subscription amount to one pound.
- 5th. That Charles Hooock, Esq., be appointed treasurer and Broome Pinniger, gentleman, honorary secretary to this society.

DAIRY AT BROCK. — DUTCH CHEESE. — The dairywoman, or rather mistress, showed us all the operations of butter and cheese-making; and I shall ever after, from a conviction of its purity, prefer Dutch cheese and butter to any other. The cheese press is a beautiful piece of machinery, ornamented with gilding, brass, and copper, all as bright as polish can make them. A large dog, placed in a kind of treadmill, turns a wheel and cylinder, and performs the operation of churning. The moulding and pressing of the cheese, and separating the milk from the butter, are all executed without bare hands ever mixing with the materials; and, as he afterwards observed, all the large dairies of North Holland, the produce of which enriches the inhabitants, are managed in the same way. — Macgregor's Note Book.

## FRENCH CORN AVERAGES.

The following are the average prices of wheat in France, at the end of December in each year, during the under-mentioned 17 years, from 1819 to 1835 inclusive, the whole reduced into English measure and money.

	The hectolitre.		equal to	The quarter.	
	f.	c.		s.	d.
1819 ..	14	86	..	34	0
1820 ..	19	90	—	..	45 3
1821 ..	14	98	—	..	34 3
1822 ..	16	3	—	..	36 9
1823 ..	15	67	—	..	35 10
1824 ..	15	1	—	..	34 4
1825 ..	15	52	—	..	35 6
1826 ..	15	90	—	..	36 5
1827 ..	21	67	—	..	49 8
1828 ..	22	91	—	..	52 6
1829 ..	21	15	—	..	48 6
1830 ..	22	25	—	..	51 0
1831 ..	22	18	—	..	50 10
1832 ..	17	99	—	..	41 3
1833 ..	14	87	—	..	34 0
1834 ..	15	26	—	..	34 11
1835 ..	14	68	—	..	33 8

The average of the whole period is 17f. 70c. per hectolitre, which is equal to 40s 6d per quarter, and it will be perceived that the average of December of the present year is the lowest of the whole period.

To compare the average prices of wheat in France with those of England and Wales, it is necessary to add 20 per cent to the latter for difference in the quality of the wheat, and the difference in the mode of taking the averages, and it then appearing that the average price of wheat in England and Wales, for the six weeks ending the 1st inst., is 36s 6d the quarter, this, with the addition of 20 per cent., makes 43s 10d; and the average price of wheat in France, at the same period, being 33s 8d the quarter, it follows that the average price of wheat is 30½ per cent. higher in England than in France.

#### THE RUSSIAN WOOLLEN MANUFACTURE.—(From an article by Mr. Leitch Ritchie in the *New Monthly Magazine* for December.)

The highest price of woollen cloth which I observed, at an exhibition of products of national industry, was thirty-two roubles the archine. Formerly the Poles were the masters of the market, but the Russians have learned to surpass them. Some of the cloths were extremely fine, but the black colours dingy instead of black. The growth of wool is a subject of extraordinary importance to Russia, and is watched with intense interest by the more intelligent of the people. Merino sheep are breeding in various parts of the country, from the shores of the Baltic to the frontiers of China; and the extensive cloth-trade carried on with the celestial empire, is now fixed on such a basis as cannot be shaken by the intervention of other nations. Formerly the Russians brought the goods destined for this traffic, from a distance of several thousand miles to the frontiers. Now, the goods—the manufactory—the wool—the sheep on which the wool grows—all are close to the market! The Russians owe this, in the first instance, to an Englishman, the late Mr. Kempton Harvey, brother of Mr. Harvey, lecturer on English literature at the University of Moscow. This gentleman, in the autumn of 1829, brought from the heart of Saxony, to the neighbourhood of Moscow, a flock of six hundred Merino sheep, with the intention of sending a portion of them to Irkutsk. A joint stock company, however, was afterwards formed, chiefly by the exertions of M. Zeidler, the governor of Siberia, and four hundred of these

valuable animals were marched into Asiatic Russia. The whole distance from Saxony was between five and six thousand miles, and the travellers took four years to their journey. This wool does not deteriorate, even among the snows of Siberia; and they suffer less by drought and epidemic diseases in summer than the native sheep. The emperor is a partner in this company, holding forty shares, at two hundred and twenty-five roubles each.\*

## COURT OF COMMON PLEAS.

## A CHEAP HORSE.

BROGDEN V. MARRIOTT.

The defendant was the owner of a horse named Partington, which he undertook would trot 18 miles within an hour. The plaintiff agreed to purchase him for 200*l.*, on the condition that he should within a month trot 18 miles in an hour, to the satisfaction of a third person agreed upon between the parties; otherwise, he was to be allowed to purchase him for 1*s.* A trial of the horse's capability in this respect was accordingly appointed to take place on a given day, but it was interrupted by a servant of the plaintiff's. Another time was then fixed upon for a second trial, and notice of it given to the person who was to act as judge on the occasion. The latter, however, not attending, the trial did not take place, and the month elapsed without the horse having performed the stipulated feat; whereupon the plaintiff demanded that the horse should be delivered up to him on payment of the shilling. The defendant refused, on the ground that the first trial had been interrupted by the plaintiff's servant, and that a subsequent trial had not taken place merely in consequence of the non-attendance of the judge or referee. —The Court decided, with reference to the first point, that as the servant was not alleged to have interrupted the trial of the horse by direction or command of his master, the latter was not answerable for his act; and that with respect to the non-attendance of the referee or judge, it was incumbent on the defendant to have procured his attendance, as he had undertaken that the horse should perform this feat to his satisfaction within the period of a month. Not having done so, he was bound to deliver up the horse on the payment of a shilling. Verdict for plaintiff accordingly.

“HE THAT KEEPETH CORRECT ACCOUNTS, BIDS DEFIANCE TO THE SHERIFF'S OFFICER.” So says the Dutch proverb. Farmers have ever been subject to the imputation of negligence in keeping accounts. Account keeping is so much simplified by “Warren's Farmers' Account Book,” that there is no longer ground for excuse. We recommend it as the most useful and best arranged book of the kind which has ever come under our notice.

In Strasburg the dogs of the city are under the superintendance of the police. Every dog is obliged to wear a numbered plate attached to his neck, the price of which is 40 centimes (4d), paid at the Mayor's office. The plate is renewed every six months, or whenever it may be lost.

\* The stock of the company, on the 1st of August, 1834, consisted of 634 pure Merinos, and 2,904 of the first and second crosses and native sheep. The stations are Irkutsk, Minusinsk, and Verkuyudinsk. The long wool of the first generation is said to be adapted for combing, and perfectly well suited to the English market.

## AGRICULTURAL REPORTS.

## KENT.

At this season we have little to notice in farming concerns, having, owing to the present frost, not much else to do but cart manure on the land, for the approaching spring crops. The wheats with us were mostly above ground before the frost set in, and if we had been favoured with snow to cover them it would have been of great service, as it would have sheltered them from the severe weather, as the late sown are at present a very tender plant. The year now commenced looks very gloomy for farmers; as, at the prices corn is now fetching, there can be no doubt in the breast of any one, but we are fast reducing our capital, for the rent must be paid out of it, otherwise the landlords must go without, for what is received of corn, &c., will all be devoured with the expenses. The corn markets this week have at last taken a turn for the better, but it is uncertain how long it will be so, we must not flatter ourselves, but it is well known that there has been a very great deal of corn thrashed for so early in the season, and sent to market; it is generally allowed that our wheat will be under the average as respects quantity.

Our cattle markets have of late been very scantily supplied with both beasts and sheep, and prices are higher. We had some excellent Christmas stock, quite as good as in any former year.

Amongst hops there has been a great deal of business done, but particularly amongst the better sorts, and prices quite as good, but the inferior hang on hand although the holders are wishing to sell.

We have very little doing amongst wools at the present moment, but there is a good deal in the hands of some growers.—Jan. 11.

## GLAMORGANSHIRE.

The winter set in about the middle of December, and occasionally the frost has been unusually severe. From the 20th to the 26th it was more intense than we have known it for many years, Fahrenheit's thermometer frequently sinking below 20 degrees; and on the morning of the 25th it was observed that it had been during the preceding night as low as 17 degrees, which is the greatest depression we have known in the vale of this country for the last 20 years. The ground has been covered with snow for the last two or three days, which is now disappearing. Such sharp weather at, and previous to, Christmas day, occasions the frequent remark that the present was an "old-fashioned winter," which never fails to ensure abundant crops. It is far more acceptable at this season of the year than in the spring for all farming operations, but it may be observed that notwithstanding the absence of hard winters of late, the crops have not been deficient. The plough has been nearly at a stand for some weeks; but the frosty weather, although not of long duration, proved acceptable for removing manure, and grass land ought to have experienced some benefits from it, the improvement of this portion of the farm being generally greatly neglected. The other operations on the farm have been limited to the thrashing and marketing of

corn, the sale of which it is difficult to effect even at the present low prices. In fat stock there is not yet any great improvement in the price, the deficient crops of turnips and hay having forced them to market, which has hitherto been well supplied as to quantity; but in the spring we expect they will be found scarce.

The continued depression of the farming interest has at last awakened the landed proprietors to the subject, and meetings, we observe, are held in various parts of the kingdom to petition parliament for an inquiry into the cause of this distress. While we are ready to acknowledge the difficulty of removing the pressure by any legislative enactment alone, we still think that some effort should be made by the government to mitigate it. In political, as well as in animal, economy, the seat of a disease should be first ascertained, and half the cure has been very properly ascribed to the discovery; and thus far, at least, the claims of the agriculturists cannot justly be rejected. Yet we do not perceive any disposition to make even this concession to the thousands of occupiers whose property continues to disappear. Had they adopted the menacing attitude of many other classes,—the householders of London, for instance,—some remedial measure would have been enacted long ago; but years of patient suffering and humble and constitutional applications for relief, meet no attention. There is, we are sorry to say, a latent feeling cherished by a certain set of politicians, not far removed from power, to pull down the landed interests, and who seem to consider that it is essential for the well-being of the state that the British farmer should be reduced in the scale of society, and brought back to the habits and living of his forefathers; while the same party loudly clamour for the advancement and improvement of all other classes. It is not enough for these economists that our "merchants be princes, and our traders become the honourables of the land," but it is necessary that our journeymen, artisans, and mechanics, have their public buildings, their trade unions, mechanics' institutes, &c. &c. The British husbandman, on the contrary, is proscribed from any participation in these improvements; he alone must return to his former state of vassalage, must be brought again to the smock frock and wooden clogs of his ancestors, and be kept in ignorance; levelling him down to the miserable and destitute condition of the Irish cottier, is now the order of the day; and the object sought for by these politicians, is being rapidly accomplished by their measures, aided by the increased facilities of combination between the two countries. We trust the English landholder will not tamely submit to this degradation of their tenantry, but will exert the influence they still possess in averting from themselves and those dependent upon them, the ruin which is fast approaching.—Jan. 13.

## STRATHMORE.

The month of December commenced with dull hazy weather from the west, which has formed the most prominent feature of atmospherical phenomena through

out the month. On the evening of the 5th, however, we experienced a pretty heavy fall of snow, which was again speedily dissolved, and a few nights of intense frost occurred about the 24th—the thermometer having during that night sunk as low as 26 degrees of Fahrenheit, which induced us to believe that we were about to be visited by something of that severity of temperature which had previously set in on the Continent of Europe. But soft and mild weather has generally prevailed ever since, and consequently considerable progress has been made since the date of our last in the ploughing of clover-ley, which is now in a forward state. Attending to winter stock, especially to that of the feeding byre, and sheep upon the turnips, together with the thrashing out of grain, and carrying it to an unremunerating market, are now the principal objects of the husbandman's attention. Candlemas rents, however, we must again remark, will speedily be looked for, and it would require a great degree of exertion on the part of the tenantry to be properly prepared to meet them at the present low prices, although the barn-yards were of inexhaustible extent; but, when we recollect that these in general are limited enough, even were prices considerably higher than they are, and that there are still many farmers who do not enjoy the benefits arising from a grain rent, it can scarcely be supposed that the scene around the "farmer's ingle" during the winter evenings, should now exhibit all that joy and contentment which was once supposed to be the *ne plus ultra* of rural felicity.

We are glad to hear that so many of the landlords in the Curse of Gowrie are now following the example given long ago, by many of the proprietors of Strathmore, in adopting a grain-rent; but we would beg leave to remind them both, that these conversions of money-rent into grain do not now in general afford the necessary relief to the tenantry; for although, in so far as the landlord's demands are concerned, the same number of bolls will always meet them, when no minimum is fixed, it is very different with regard to servants' wages, and the other necessary expenses of *tear and wear* connected with the management and improvement of a farm. These for many years past may be said to have been a constant quantity, to use a mathematical phrase; whereas the number of bolls destined for the payment of such expenses (profits being out of the question) bring at present only about two-thirds of the money they brought when the triple boll was 75s; and the deficiency of a third of such expenses is no inconsiderable sum, and quite sufficient to compel any farmer to join in the cry of agricultural distress. We are happy to see, however, that landlords both in Scotland and England are now seriously bestirring themselves, and many of them taking more just and rational views of the subject than has in general been hitherto the case: and that they now acknowledge the impossibility of obtaining any thing like *war prices* in the midst of universal peace and plenty; and consequently that the only real source of relief to the farmers lies with the proprietors themselves, provided the foolish competition that we see so often displayed in the taking of farms would permit them to exercise their rational and generous principles.

Jan. 6.

It must be of great advantage to agriculturists to procure cheap and efficient manures. Last year, several farmers in the neighbourhood of Montrose, tried the raising of turnip with crushed shells, from the village of Ferryden, at the rate of from 50 to 40 bushels per acre, and the crops have turned out equal to those raised with bone dust or farm yard manure. Several experiments are also made with it as a manure for wheat, which we hope will prove equally successful. The proprietor of Rossie has erected a machine near Ferryden for grinding shells. —*Perth Courier.*

## MANUFACTURES OF SPAIN.

Numerous manufactures of various kinds have been established in Catalonia within the last twenty years; those of cotton and silk are, however, the most extensive. Catalonia had about 200 paper-mills at work prior to the revolution in the Spanish Americas, which countries consume an immense quantity of Spanish paper every year, principally for the purpose of making cigars; these states have of late years been supplied with paper made in Genoa and other parts of Italy, in imitation of the Catalan fabric. The silk manufactories of Valencia, Murcia, and Granada, occupy a great portion of the population of these provinces. There are numerous manufactories of coarse woollen cloths in Arragon and Castile, and to protect which heavy duties have been imposed on the importation of low woollens. Fine cloths are likewise made in Guadalaxara and Alcoy, the latter establishment is very extensive. In the northern provinces tanning is one of the most active branches of local industry; the linen trade formerly carried on in Galicia and Asturias has of late almost entirely ceased. Coarse pottery is made in various parts of Spain. The iron forges in Biscay were formerly very numerous, but owing to the high price of fuel, and general want of encouragement afforded the proprietor, the works are now reduced to a very limited number, and hardly any of these concerns leave a profit at present.

The woollen stuffs manufactured in Spain are for the most part inferior in quality, owing to want of attention in preparing the wool, the colours dyed seldom being permanent.

Cotton manufactures have greatly increased in Spain of late years, and cotton spinning is carried on in Barcelona to a considerable extent. The calicoes made in Spain are mostly common; and the printed patterns are good, but the colours seldom stand.

The greater part of the silk stuffs manufactured in Spain are stout and good in quality, but want lustre, owing to the raw material being got up in a very imperfect manner, and badly thrown. Ribbons and handkerchiefs are amongst the best made articles in Spanish silks.

Spain can never succeed in a manufacturing point of view, until a thorough improvement in her agricultural system shall have increased population, and rendered labour more abundant and cheaper; there will then exist no necessity for clogging industry with so many vexatious regulations. At present the dearth of provisions, the expense of manual labour, added to the numerous holidays, the difficulty and high rates of conveyance from one province to the other, with the multitude of taxes imposed, first, on the raw material, then upon the manufactured article, and lastly, on its sale, form a combination of causes which cannot fail to impede the progress of manufacturing operations in every branch.—*Mining Journal.*

ALMANACKS.—The Bijou Almanack is indeed a veritable bijou. Only imagine an almanack which would lie commodiously within a very small vinaigrette, containing six portraits, and six poems by L. E. L., perfectly legible with the naked eye. Mr. Schloss merits the highest credit for this specimen of the art of printing, and we have no doubt will meet every encouragement.



## AGRICULTURAL INTELLIGENCE, FAIRS, &c.

SHERBORNE MARKET was fully attended by dealers and competitors for the prizes to be awarded to the owners of the best samples of wheat and other agricultural produce. A considerable quantity of corn was pitched; the barley was particularly fine, and sold freely, but not at advanced prices. The cattle market was also well supplied, and a fair share of business transacted. Messrs. Goodenough, Green, and Way, were the umpires, and the prizes were awarded as follows:—

Sovs.

To Mr. Samuel Blake, for the best load of Wheat 2  
 To Mr. Thomas Ensor, for the second best ditto... ½  
 To Mr. Robert Stuby, for the best load of Barley... 2  
 To Mr. Caleb Loader, for the second best ditto... ½  
 To Mr. Samuel Blake, for the best load of Oats... 2  
 To Mr. Edmund Bishop, for the second best ditto... ½  
 To Mr. Thomas Miller, for the best load of Beans... 2  
 To Mr. William White, for the second best ditto... ½

After the business of the day was concluded, a large party of agriculturists and tradesmen partook of a dinner at the Angel Inn, which was excellently served by Mr. Alford, and gave the utmost satisfaction; on which occasion Mr. J. M. Thorne acted as chairman, and Mr. Ensor as vice-chairman.

MELTON PLOUGHDAY FAIR, on Monday last, was but thinly supplied with horses; good horses were scarce, and made high prices. On Tuesday, the fair was well supplied with beasts of all kinds; fat ones were much in demand, and readily sold at an advance in price, some realizing 6d per lb. A good show of cart horses; good ones fetched high prices. Nag horses were much in request. The corn market was brisk: wheat on the advance.

ST. THOMAS MARKET, CRIEFF, was well attended, the day being favourable. There were about 150 cattle in the market, most of which were in good condition, and sold freely, the demand being fully greater than the supply. Good fat brought from 6s to 6s 6d per stone Dutch: beasts of this description are all bought up in the early part of the day. Lean stock was scarce, for which there was little or no demand. There were about 30 stones of cheese present, which sold from 5s to 5s 6d per stone. Lint sold at from 11s to 18s per stone, there being about 120 stones in the market.

PRESTON HORSE FAIR.—As compared with the show of horses at the fair in January, 1835, we may safely say that the quantity exhibited at the present fair has been much larger. Of the quality of the cattle we believe there has not been noted any great improvement. But the prime horses are never seen in the public streets; and we learn that the supply of this superior kind of stock has been good. With respect to sales and prices, it seems allowed by all that horses of the first class have been much looked after, and that sellers have had no reason to complain on the score of prices; (200 guineas is the largest amount we have heard been given.) The second class and inferior kinds have been numerous, but the sales were not easily made, although a slight reduction in price would have been submitted to.

AGRICULTURAL SOCIETY OF EAST LOTHIAN.—The members composing the East Lothian Agricultural Society, have engaged apartments in the Market Place of Haddington, for a Library, Reading

room, Secretary's office and Committee room. The Reading room will contain all the chief periodicals connected with agriculture, and such newspapers as contain the earliest and best accounts of the state of the markets. The Society already possess a good library, to which additions are being daily made through donations and the Society's fund.

FECUNDITY EXTRAORDINARY.—A remarkable instance of fruitfulness occurred at Dedham on Sunday last:—A ewe, of the true Leicester stock, belonging to Mr. William Downes, was slaughtered (having evinced symptoms of stupor), when it was ascertained that she was pregnant with 4 ewe and 2 tup lambs! none of which were in the least deformed.

BAKING MACHINE.—An American has obtained a patent for a machine to make ship-biscuits. The expedition with which they cut out the biscuit, says the *Aberdeen Herald*, is almost approaching the marvellous—one of the large-sized machines being capable of throwing off at the rate of from four hundred to five hundred in one minute. An experiment was recently made, and from the time the wheat was put into the mill to grind, until it was turned into well baked biscuit, 25 minutes only elapsed.

IMPORTANT TO HOP-PLANTERS.—We have already stated that the Commissioners of Inquiry into the existing laws have recommended the abolition of the duty on foreign hops, which, being 8l 11s per cwt., operates as a protecting duty to the planters of this and other counties. If the recommendation of these Commissioners be adopted, it will be extremely disadvantageous, if not ruinous, to the English planter; and it is necessary both landlords and tenants who have hop plantations, should be prepared for any attempt so perfectly uncalculated for, and so destructive to their property.—*Hereford Journal*.

CREDITORS ON TURNPIKE ROADS, NOT INJURED BY RAILWAYS.—When the Liverpool Railway was opened the creditors of the Prescot turnpike road became alarmed for their money, which they had called in. The Treasurer could not pay them, he had no funds—for the road was indebted to him. But mark the consequence—within five years after the opening of the Liverpool Railway, the Treasurer's debt of 2,400l. has been paid off, besides 3,000l. of bond debt. Such is the flourishing state of the funds of the road, that the trustees intend to pay off 1,000l. of their debt per annum. This is owing to the increase of traffic on the road consequent on the Railway.—*Tyne Mercury*.

A SMEARING MACHINE.—In a long article on sheep-smearing, and on machines for that purpose, which appeared in the *Journal* of 16th December last, it was stated that if the Highland Society were to offer a prize for the best model of a machine for smearing sheep, that before next season, one would be produced of so efficient a construction, that a sheep could be salved with the same despatch that a printer can at this moment throw off a newspaper; be that as it may, we have just learned, that on the 30th November last, Mr Robert Nisbett, Inverleithen, laid before the committee of the Highland Society, one of his single barrelled smearing machines with one aperture, which was highly approved of by them. From various testimonials, it was shown to be very superior in smearing, to any other

plan now in use. Mr. Nisbett makes no pretensions as to what may be the best materials for smearing, but confines his claim to the notice of sheep-farmers, as the inventor and maker of a machine for operating effectually.

**THE AVERAGE PRICE OF WHEAT THROUGHOUT THE KINGDOM FOR THE YEAR 1835, HAS BEEN ONLY 39s. 7d. PER QUARTER, AND THE AVERAGE PRICE OF WHEAT SOLD ON THE LONDON MARKET, 42s. 3d.**

The average of 39s 7d is the lowest aggregate rate since the year 1780, when the general average was 35s 8d, equal to 36s 9d imperial measure. In 1786, the average was 38s 10d, equal to 40s Imperial measure, since which the average has only been twice as low as 41s 2d and 41s 9d, Winchester measure, or 42s 5d and 43s imperial measure, and which occurred in the years 1787 and 1792.

**RETROSPECT OF THE WOOLLEN TRADE.**

It would hardly be possible to offer an opinion more favourable as to the general transactions of the year 1835, than by saying that they differ widely in every respect from those of the two preceding years. The excitement of 1833, and the consequent languor of 1834, have alike been avoided; and we appear to have followed that happy middle course which has conducted us to the end of the year in a state of activity, constant, regular, and beneficial.

The old stocks of goods which had accumulated during the year of excitement, and had stuck fast during the year of depression, have been worked off; and new stocks have been kept down to the point just adequate to meet the effective demand which has prevailed all this time for the home and foreign supply. At the present moment stocks of both wool and goods are very bare in the hands of manufacturers, who are not disposed to make up more than they have an immediate prospect of selling, nor to purchase more than they want immediately to make up. In fact, they have found out the philosophy of that simplest, yet most original of operations—from hand to mouth.

Of the various channels into which the produce of our industry has flowed, we consider the supply of the home trade is entitled to take precedence, as well for extent as for soundness. So low had the old stocks of goods become reduced that new supplies were absolutely wanted; they were not only sold as soon as produced, but worn as soon as sold. No serious mistake can ever be made during a state of things like this.

Foreign demand has been good, also, upon the whole, but subject to greater fluctuation, probably somewhat more speculative in its character, and, perhaps, not quite so satisfactory in its results. The trade to the North of Europe may have a right to stand first in a claim of exemption from these qualifications. The demand for Germany has been steady, and it is understood that the stocks left over the season are not excessive. The great drawback upon an effective demand for the supply of that country and the Netherlands, is the continued extravagant price of English wool, of which the goods required for those markets are principally composed. The importers in this case do not like to put their hands to their mouths, but rather keep them in their pockets; fearful that an article so very much out of proportion in price with every other article of raw produce, cannot possibly remain so permanently; and that the longer the reaction is postponed, the more violent it will prove. In Portugal the re-opening of the markets after so long a period of civil commotion

caused an extensive demand for goods, which has continued throughout the year; and, as may naturally be expected, the trade has been somewhat overdone; the markets are consequently now glutted; and whatever may be the issue of pending negotiations respecting duties, it is probable that some interval will be required to elapse ere the equilibrium of supply and demand there can be restored. The United States of America are in a situation somewhat similar, although more so for certain descriptions of goods than for others. The effect of the strife between Andrew Jackson and Nicholas Biddle led to a general, but by no means a universal suspension of shipments to that country. The consequence was, that when commercial enterprise was resumed, there was less room for its employment in some articles than in others, and those which have been most overdone have gone to the wall. Cloths are, perhaps, the worst: they have stuck on hand sometime, except at a dreadful loss. The great fire may have lightened the market, only we fear it has lightened the purses at the same time. But the whole system of trade to that market, and to the Brazilian markets, still more, requires a consideration into which we cannot now enter.

The prices of wool during all this time have suffered no very great fluctuation. As usual they were lowest at the period just preceding the clip; and as usual again, they have since got up. The supply has been abundant, as will appear on comparing the imports last year with those of preceding years. The augmentation is constant, regular, and striking; shewing that whatever probable increase of consumption may arise, there need be no fear as to supply. The following article on the subject of the wool trade is translated from a Swabian paper, wherein it appeared at the close of the year:—

“In forming an opinion as to the probable course of the wool trade next year, it may be necessary again to review the transactions of the years 1833 and 1834, more particularly as the events of the latter year have given rise to the present situation of this very important branch of commerce.

“In 1833, the rage for buying wool was so great, that any one, judge or no judge of the article, thought he could not employ his capital better than in the purchase of wool. It was quite natural that under such circumstances this trade otherwise so fair, should lose its character for solidity, and become the game of wild speculators and swindlers; since persons with capitals hardly reaching 20,000 dollars, purchased wool to the extent of 300,000 to 400,000 dollars; and prices were forced up in such a manner that the rise from June to November equalled 30 to 40 per cent. This rise, therefore, was not the effect of consumption, but of speculation; and, of course, could not be permanent. The consequences are well known: they produced the great catastrophe of the many failures which occurred in October, 1834.

“The wool trade of this year has exhibited a state altogether different. The prices of wool have not been driven up too high; wool dealer and manufacturer both went cautiously to work, and no one bought beyond his means. Although the wools of Saxony, Prussia, and Silesia have been pretty well sought up, and those of former country are now hardly to be had, yet prices have advanced in due relation only: the advance may be taken at 10 to 15 per cent., and this, even, not upon all qualities.

“The present demand for wool in Germany, as in England and France, is great: in the latter country in consequence of the reduction of the duty from 33 to 22 per cent.; and the sales of cloths, especially in the German markets, are very extensive. The sales of wool in the English market, from the time of the clip to the present period, have been important, and not without profit. In France and the Netherlands the manufacturers are in a state of the greatest activity, and there appears no ground to expect that the prices of wool will give way: on the contrary there is promise of a very lively Spring. Stocks in England are not large, and the produce from Spain must, in consequence of the

prevalence of civil warfare, for the present, or for some time to come, prove extremely insignificant. In addition to this, the competition which has latterly arisen between France and England in the cloth manufacture, may also tend to maintain the prices of wool; the more so because the injurious depression of prices by the English manufacturers, which has hitherto been usual, will thus receive a check. Even in the last fair purchases were made by several French houses in Mecklenburg of more than 2,000 cwt. of wool. In Berlin and in Austria much larger quantities were purchased for France; and in some cases better prices were obtained than the English paid. The French demand was for the superior Electoral sorts, but more particularly for fine combing wools, and was directed also to ordinary wools amongst the rest.

"If, from all this, it may be concluded that no fear need be entertained of a fall in the prices of wool, it is on the other hand to be wished that the growers would neither encourage nor try to realise expectations for the next clip beyond those which the present state of things warrants; otherwise the trade might again easily be brought into a stagnant condition, by which they themselves might again be sufferers in the end."

We consider this a tolerably fair exposition of the matter. The advance since the clip may be somewhat exaggerated at 10 to 15 per cent.; and it may be well if it be so, as it will be all the easier to come down again to the level next May. The growers, we suspect, will hardly give themselves the trouble to elevate their expectations even so high as this present advance; at all events if they take past experience into their reckoning.

But the writer of the article has committed one sin of omission; in his calculation of probable results he has quite overlooked the triumph of modern science in the application of the microscope to the properties of wool. And he has no excuse to offer; the great discovery has been wafted over in the columns of 'the only provincial English paper which is ever seen in the North of Germany'; for Mercury affirms it, and Mercury is a veritable god. This discovery must have an important influence upon future wool markets. Henceforward it can be said of no man that he is "no judge of the article." Simple demonstration supersedes the necessity of long practised skill. The Microscope becomes to wool what Phrenology is to the skull; character in the one case, and quality in the other, can be determined at a glance. The organ of mill-attiveness is a serrated fibre. The quality and value of wool will henceforward be determined like the age of a horse—by an examination of its teeth. The spectacle of the wool fairs will acquire new interest. The picturesque old towns of Germany, crowded with strangers from all parts, each one attended by his microscope bearer, like knight and squire of old, will be a sight, as Sir Charles would say, "pretty to see."

But we know no reason why the benefits of scientific research should stop here. May not that which has been done for quality be extended also to quantity? The microscope is an effective instrument in the one case: by the telescope new realms of wool may be discovered. Here is a field for enterprise! And let no apprehension be entertained as to a corresponding increase of consumers. The completion of the railway to the moon will open new markets in abundance.

The German wool growers may wonder how it is that theirs are the only prices which do not fluctuate; whilst each interval between clip and clip is employed in first getting them up, and then getting them down again. They may have wondered, also, how it came to pass that the man with 20,000 dollars only, could make purchases of wool to the extent of 400,000 dollars. They are simple as their own sheep, and know not the resources of ingenuity. We could even imagine a case on the spur of the moment which might enlighten them. We would suppose, only, that a dealer in wool was at the same time an importer of English goods. The purchase of English goods on credit we all know is an exploded system: they will, of course, be ordered on the usual terms of prompt payment. But this prompt pay-

ment is not altogether so prompt as some simpletons might imagine. It means, of course, bills at three months; and then, there must be a decent interval allowed for the goods to get fairly into the importer's possession. Say, therefore, four months cash are the terms; and if the money be forthcoming, in cash, at the end of the four months, why really there is no interest lost, and the importer may consider he has fulfilled his engagement. Here, then, we have hitch the first: four months. But a large importer, a constant, regular customer, may think himself at liberty to enjoy a little extra latitude. If he can only keep up a constant payment, on open account, he may find it possible to hang back gradually two months in arrear; and, after all, what is it? he will pay the difference of interest in account current, and the man with such a customer ought not to be over nice. Here, then, we have hitch the second, two months. Four months and two months are six months. It might happen, furthermore, that even at the end of the six months the cash is not ready. But if the creditor should press, what might the importer say? "Oh! if you will not wait, you must draw upon me *three month*: you get cash immediately in *London* for your draft." Here, then, we have hitch the third: three months. Six months and three months are nine months; and all this, our man of sheep will see clearly, is a ready-money transaction.

Now then, let us see what becomes of the goods. They arrive, in regular course, without delay, and are sold; converted into cash immediately. The importer has no need to stick out for a profit, nor even to boggle at a loss; nor need he wait the tedious process of a private contract sale: there are auction rooms every where; in Hamburg as well as at other places. He gets his cash; and he can lay it out in wool: that is the main thing. He may lose five or ten per cent. on the goods; but what of that, if he gain ten or fifteen per cent. on his wool? There is a balance of profit in his favour still; he has the nine months time for payment; he has all this time to realise his wool; and the manufacturer may have the satisfaction to learn that he is cutting out all the rest of the world in price, the rest of his own customers included.

This is a beautiful operation; but there are only certain favoured regions where it will flourish. In Lancashire, for instance, it will not do at all. The Manchester men have an awkward trick of holding out their hands about the 10th of every month. This is very unhandy, and would justify any liberal man in turning his back upon them, and leaving them in disgust, for localities where enlightened principles of trade are better understood.

Amidst other circumstances which render the wool trade especially open to speculation, one is that it requires no preparation, and that it is of general demand amongst all manufacturers. The manufacturer, after making his purchase, has then to consider what use he will make of it. If he convert it into a brown cloth, he knows right well that he restricts his market to the buyers of brown cloth, and that the buyer of blue cloth is no customer of his. So likewise, with the various descriptions of goods to which his purchases can be applied. Herein he has a judgment to exercise; a risk to run. But the wool dealer has none of this: brown, blue, black, or motley; thick or thin, twilled or plain, broad or narrow; all alike bring customers to him; and the plague is in it if he do not find a purchaser amongst them all. Here is the advantage of the wool dealer over the manufacturer; hence the temptation to speculate in wool; and hence, too, it is, that in a rising market wool is always more susceptible than manufactured goods: every manufacturer is anxious to anticipate the advance by providing himself in time. But with all appliances and means to boot, the speculation, even in the most skilful hands, does not always answer. We have heard the losses of one house, a Hebrew house too, estimated at ten thousand pounds within the last two years. The amount of loss shews at once the strength of the house, the fallibility of calculations however skilful, and the precariousness even of the wool trade.

## REVIEW OF THE CORN TRADE

DURING THE MONTH OF JANUARY.

For the sake of the farmer, and the general promotion of the agricultural interest, we should have greeted with rejoicing the formation of a "Central Agricultural Society" in London, whose *sole* object was the advancement of scientific agriculture, awarding premiums for the invention and improvement of implements of husbandry, and as a general board to take into consideration the most effectual means of affording permanent relief to the tenant; a Society, in fact, based on the principles of that union of excellence and intelligence, termed the "Highland Society." The London Society, however, opened its proceedings by making the question of a revision of the currency, the "head and front" of the meeting, from which "all sweets" were to flow in redressing the complaints of the farmers; at the same time sounding the tocsin of alarm, and endeavouring to convince the agriculturists that they are on the brink of a precipice, over which nought can save them from being precipitated but an energetic effort of forming themselves into unions, and agitating the government, until some additional boon is granted for their especial relief. These acts of dictation and declamation, and in too many instances the coalition of large landed proprietors, who have the same political bias, would give the semblance, that the Society, *sub rosa*, is intended to be brought to bear, as a powerful engine, against the present administration, who, their opponents are fully aware, have it not in their power to afford any substantial mitigation of the grievances which oppress the farmers, except as regards the commutation of tithes, and who would, themselves, were they in office, discountenance not only any legislative interference, but likewise any effectual attempt in altering and diminishing the present oppressive payment exacted by the clergy. The opinions so decisively adopted respecting the currency have not been responded to as was anticipated, and many of the most respectable country agricultural societies in this country, as well as the Highland Society in Scotland, have declined the honour of being classed with the London Central Meeting; the tone, in consequence, of the Society is changing, no specific measures being now recommended, urging only unanimity, and the junction of that interest which was at first strenuously denied as ever having been disunited, that of landlord and tenant. In France, the farmers are suffering as in England, from the low prices realized for their produce, and complaints and petitions have been made to the Council of Commerce on the subject, to which the Minister, M. Duchatel, has replied "that agriculture it is true suffers from the effect of the low prices of grain, but this suffering emanates from causes with which the laws have no power to combat, and which will continue to operate even amidst the most brilliant prosperity." In England local taxation on the farmer has been much lessened, and the poor laws modified, and with the exception of the burthen of the national debt, the other means of alleviating the farmer rests in the hands of the very men who are instigating their tenants to apply to parliament, or, in fact, any other source rather than themselves who alone can contribute in freeing them from their thralldom by a just arrangement of rent, cancelling old leases, and re-letting the land at rates in accordance with the current value of wheat, making a fair adjustment on the same principles as those adopted in Scotland, well knowing that no government, *constitutionally*, can control prices which must be alone regulated by supply and demand. No real benefit can accrue to the farmers from factious principles, their condition depending entirely on the points above alluded to, and we would not have them led astray with visionary notions, that the government *can* or *will* assist them. Much depends on their own personal exertion and science, much on the hearty and sincere co-operation of their landlords, and an equitable adjustment of the tithe system. An alteration of the currency would be only the means of affording temporary relief, to plunge them eventually deeper into misery, only tantalizing severely their hopes, without a chance of ultimate realization. These ephemeral means, therefore, cannot be too strongly deprecated, emanating as they do from the machina-

tions of political empirics. The reward of the farmer's toil and anxiety must be based on surer foundations.

The supplies of wheat throughout the month have been extremely limited, and upwards of 26,000 qrs less than during December. The early part of January the weather proved extremely cold, and as millers were fearful the internal navigation might become impeded, and the operation of the water-mills suspended, they were inclined to buy more freely, having only previously purchased to the extent of their immediate wants, and have been therefore out of stock, having, perhaps, neglected the period at which they might have come into the market at the lowest figures; prices, in consequence, advanced 1s per qr, as the month advanced, and by the payment of the dividends money became more plenty, the low prices of wheat attracted a little speculative attention, which, in conjunction with a very scanty supply and orders from the northern counties to ship the better qualities, induced factors to advance their demands fully 2s per qr more, which millers very reluctantly acceded to, and though the rise rather checked the speculative purchases, and less briskness was manifested in the trade, yet at the termination of the month, notwithstanding an increase in the arrivals, the improved rates were supported for all the better descriptions, ordinary sorts barely realizing the previous terms, and unless the imports of wheat are very extensive, the currencies are likely for the present to be supported. Bonded wheat has met with a revived demand, in consequence of the advanced prices in the United States; owing to a deficiency in the crops, holders are asking higher rates, but the offers generally are too low to tempt them to quit their stock, and therefore many of the shipments which have been made are on owners' account. Old Danzig wheat, of high-mixed quality, and in good condition, obtained only 26s, and Barletta the same rates; Neustadt red wheat, of fine heavy quality, realized also similar prices. The exports have consisted of about 5,000 qrs of wheat to New York, 7 to 800 qrs to Malta, a few hundred qrs to Madeira, and upwards of 500 qrs to Sydney.

The improved character of the wheat trade has caused flour to continue firm at the top quotations, and ship qualities, which were offering at very depressed rates, have rallied 1s per sack for the intermediate descriptions; the highest prices therefore noted last month remain unaltered. Bonded flour has been in request, and the arrivals from the Baltic and Elbe have met ready sale; the shipments have been to New York, Boston, and the West Indies; prices continuing firm, and in some instances good parcels obtaining an advance.

The averages have not sustained much variation. The duty on barley has advanced 1s 6d, the same on rye, 3s on beans, and 1s 6d per qr on peas. The duty on barley in the official averages is noted at

19s 10d, when it ought to be 21s 4d, and has remained so for the last fortnight. We have had occasion more than once to notice the inaccuracy of the government returns, and if erroneous in those figures which meet the public eye, it throws discredit on the totals published from the inspector's returns, and on which the trade are totally dependant, as only the products are printed without the detail.

The arrivals of barley, though less than the previous month, have been fully adequate to the demand; but as fine Chevalier descriptions, and prime samples of common malting barley, have formed a small proportion of the supplies, these qualities have experienced an improvement of fully 2s per qr, Chevalier sorts having been saleable at 34s to 35s; the intermediate parcels of malting barley have, however, participated little in the advance; distillers bought freely, and fine lots obtained 1s per qr more money; grinding samples have maintained fully the previous rates. Bonded parcels experienced a partial demand for export at 15s to 16s 6d, a few hundred quarters being shipped to the United States and Lisbon.

The ale brewers purchased freely the better qualities of malt, fine samples in consequence advanced 1s per qr; the porter brewers have also been in the market, but not being inclined to accede to the top quotations, the trade the last fortnight though steady, is less animated. The supplies latterly coastways have been liberal.

The importation of oats exceed that of the previous month by 28,000 qrs, principally from Ireland; the article, however, has met a steady demand, and the supplies falling off about the middle of the month, English and Scotch qualities realized an advance of 1s, and Irish of 6d per qr; the arrivals having, however, increased, the market has become languid, and the quotations barely maintained, except for good fresh horse corn. In Ireland the establishment of numerous branch banks, called *Agricultural Banks*, in order to afford accommodation to the farmers, are enabling them to controul the markets, and forcing up prices in a higher ratio than the currencies realized in this country; the free on board sales, therefore, are limited, as prices are in many instances demanded which would leave the importer to our market 1s to 1s 6d per qr *minus*. Occasional purchases of bonded oats are being made for the West Indies, and a few hundred quarters have been exported to the United States. Brew oats are held at 13s to 15s; feed, at 11s to 12s; fine, 13s.

New beans having come more plentifully to hand, have receded 1s per qr, but remain saleable at this decline; old being extremely scarce, have supported their currencies.

Peas have been a dull trade throughout the month; white boiling qualities having receded 2s to 3s per qr, and grey and maple 1s.

The difference which exists in the stock of bonded corn and flour at the end of the year 1835, as compared with the similar period of 1834, shows a material diminution in all articles during the past year. In wheat, 55,749 qrs; barley, 112,934 qrs; oats, 91,669 qrs; rye, 1,658 qrs; peas, 2,216 qrs; beans, 36,147 qrs; flour, 121,635 cwt.

During the month of January the following quantity of grain and flour has arrived in the port of London:—

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats. qrs.
English ...	21,743	41,069	32,040	15,145
Scottch ....	440	3,354	401	13,875
Irish .....	...	526	1,261	57,122
<b>Total in Jan.</b>	<b>22,183</b>	<b>44,949</b>	<b>33,702</b>	<b>86,142</b>
<b>Total in Dec.</b>	<b>48,504</b>	<b>60,924</b>	<b>39,864</b>	<b>57,568</b>
Foreign in Jan. ...	...	...	...	675

	Beans. qrs.	Peas. qrs.	Linseed. qrs.	Flour. sacks.
English ...	8,387	6,565	16	35,217
Scottch ....	127	19	...	170
Irish .....	...	..	...	120
<b>Total in Jan.</b>	<b>8,514</b>	<b>6,584</b>	<b>16</b>	<b>35,507</b>
<b>Total in Dec.</b>	<b>8,175</b>	<b>5,662</b>	<b>287</b>	<b>45,955</b>
Foreign in Jan. 256	120	9,681	brls. 3859	

In France, the cold weather experienced at the commencement of the month having been succeeded by a milder temperature, has thawed the ice and snow, which, aided with rain, has replenished the streams and rivers, and set the mills in full operation; the flour trade, which previously from want of supply had advanced, is now fast receding; while the finer qualities of wheat proving scarce, and in demand, are improving in value; but the ordinary qualities are too abundant to participate in the rise. Farmers are complaining of the depressed state of the currencies, particularly those with long leases, which have some years still to run; the legislature, however, decline interfering, stating that prices must regulate themselves by the natural channels of supply and demand. The sudden thaws and frosts have in some districts affected the young wheat plants, and rendered them weak and sickly in appearance, and on the borders of the Rhine many parts of the low lands had been inundated, owing to the sudden melting of the snow, and the earth, not being thawed sufficiently to absorb the moisture: grain and rape seed are both represented as suffering from the weather. At Paris the best qualities of cloverseed were held at 45s to 46s per cwt., and for which purchasers are offering freely 40s to 42s, which holders would not accept.

The Italian markets have sustained little variation in price or demand; at Leghorn white Tuscan wheat was noted at 45s 2d per qr, and red 39s 6d; Sicilian linseed 55s 5d, and Odessa and Black Sea qualities 49s 1d. At Naples, Barletta wheat, owing to the prohibition of the article being ground into flour at Marseille or other French ports

for export, has declined in value; the demand being more confined to the local wants.

The advices from the United States are more favourable respecting the dreadful fire at New York than were at first anticipated. Energetic measures were being adopted to restore mercantile confidence, both on the part of the government and merchants; and it was ascertained that the Insurance offices would pay nearly the whole of the amount on the property insured. The resources of America being extensive, and the country unincumbered with a national debt, a local calamity likely to affect the commercial interests of the nation can with facility be rectified, even if the losses had been to a much more considerable extent. Flour had improved at New York in value, Western Canal being noted at 34s 10d to 35s 7d per barrel, but not much business passing, merchants being employed in ascertaining the extent of the damage committed by the fire and devising means for future transactions. Wheat dull; Genesee nominal at 53s 2d to 55s per qr; North Carolina wheat 45s 10d to 47s 8d; Northern rye was obtaining 43s 3d per qr; cloverseed, best new, 5½d to 6d per lb. At Baltimore as well as Philadelphia, the events at New York had checked the operations of the markets; flour at both cities was noted at 30s 4d; red wheat at the former 49s 6d to 51s 4d and 52s; fine white 53s 2d; at the latter wheat was dull at 51s 4d; cloverseed fine new 28s 1d per bushel, or about 66lbs.

In North America sales of grain and flour for spring delivery not having commenced, the business transpiring was very limited, a few speculative purchases of American flour had been made at 27s 6d to 28s for fine, superfine 1s to 1s 6d per barrel higher. Lower Canada red wheat was noted at 5s 6d to 5s 9d per minot, and no samples of white Upper Canada qualities offering.

At St. Petersburg, prices of wheat had remained nominally unaltered, but rye and rye-meal steady at former rates. Linseed is quoted at 38s 4d to 39s 8d on contract, but the quality of the new seed having been deteriorated by the frost, deterred purchasers from entering into contracts to any extent. At Riga contracts for the delivery of crushing linseed have been made at 39s 5d to 40s 5d with all the money paid before hand, and 41s 4d with an advance only of 10 per cent. Wheat remains nominal at 23s 7d to 27s 10d, while rye realizes 24s 10d. At Konigsberg a little speculative demand has existed for fine high mixed wheat at 26s to 27s per qr. Beans have been bought for English account at 16s to 17s. Tares are held at 15s 6d to 16s, and linseed at 43s to 44s. At Danzig little business has been transacted during the month in grain, though there is a great choice of quality from the 300,000 qrs of wheat now in granary, the very finest high mixed samples of 1834 and 35 however form but a small proportion of the bulk, and are held steadily at 26s to 27s. Intelligence has been received from Poland,

that the immense fall of snow which had been experienced at Danzig had prevailed all over the country, and the parties in the interior appear to be so sanguine that the river communications with the Vistula will be navigable next spring, that they are building already the barges upon which they intend floating down their wheats; if this succeeds, and it seems probable, upwards of 20,000 qrs of fine Volhynian wheats will be added to the store, but which it is represented will not be obtained under 28s per qr. Rye is noted at 15s. At Rostock, as well as Wismar, the prices of the best qualities of wheat are ruling extremely low, and parcels weighing 63 to 64lbs may be purchased at 20s 6d to 21s 6d. Rye is noted at 18s, and peas at 18s 3d. In Holstein and Denmark, wheat of good quality can be bought at 20s to 21s. Rapeseed is scarce, and the better parcels are held at 32l per last. Tares are to be procured at 21s. At Hamburg the wheat trade has sustained little variation. Rapeseed has been in request, and is held at 33l per last for spring delivery. Cloverseed has been firm at the advanced rates; fine new red being noted at 50s to 53s; white, 63s to 69s per cwt. In Holland the adoption by the chambers of the projected law for levying an additional duty on the import of foreign grain, has improved the value of the stocks on hand, and prices were tending towards an advance, though the measure is still much depreciated by the merchants.

PRICES OF FLOUR,

	Per Sack of 250 lbs.		JAN. 1.		FEB. 1.	
	s.	s.	s.	s.	s.	s.
Town-made.....	34	35	34	35	34	35
Norfolk, Suffolk, Kent, and Essex.....	27	29	27	30	27	30
Sussex and Hampshire.....	27	29	27	30	27	30
Superfine.....	31	—	31	—	31	—
Lincolnshire, Yorkshire, and Stockton.....	26	28	26	29	26	29
Northumberland, Berwick, and Scotch.....	26	28	26	29	26	29
Irish.....	26	28	26	29	26	29
Extra.....	29	—	30	—	30	—

IMPERIAL AVERAGES

Week ending	Wheat	Barley	Oats	Rye	Beans	Peas
11th Dec.	36 8	28 2	18 7	28 0	34 11	35 7
18th "	36 6	27 7	18 6	24 5	34 4	35 4
25th "	36 0	27 4	18 8	27 7	33 7	34 5
1st Jan.	36 0	27 4	18 7	27 7	33 4	34 5
8th Jan.	36 6	27 8	18 7	27 0	33 4	34 3
15th "	37 0	28 1	18 9	25 8	33 3	34 5
Aggregate Average of the six weeks which regulates the duty.....	36 5	27 8	18 7	27 0	33 9	34 9
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London.....	50 8	21 4*	19 9	28 9	19 9	18 3
Do, on grain from British possessions out of Europe.....	5 0	2 6	2 6	3 0	3 0	3 0

Foreign Flour, 28s 8d per 196lbs. British Possessions do, 3s per 196 lbs.

\* The Gazette gives the duty 19s 10d, which is an error.

CURRENCY PER IMPERIAL MEASURE.

	BRITISH.		JAN. 1.		FEB. 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk.....	30	37	34	40	34	40
White.....	32	42	35	45	35	45
Norfolk, Lincolnshire and Yorkshire.....	30	34	33	37	30	34
White, do, do.....	32	37	35	40	32	37
West Country Red.....	31	34	32	36	31	34
White, ditto.....	32	37	35	40	32	37
Northumberland and Berwickshire Red.....	30	33	34	38	30	33
White, ditto.....	32	36	35	38	32	36
Irish Red.....	30	32	30	33	30	33
Ditto White.....	33	34	33	36	33	36
Barley, Malting, new.....	28	30	29	32	28	30
Chevalier, new.....	30	33	32	35	30	33
Distilling.....	24	26	24	27	24	27
Grinding.....	21	25	21	26	21	26
Irish.....	21	21	21	24	21	24
Malt, Brown.....	40	49	40	49	40	49
Ditto, Chevalier.....	58	60	58	61	58	61
Ditto, Norfolk and Suffolk Pale.....	46	55	46	56	46	56
Ditto Ware.....	58	60	58	61	58	61
Peas, Hog and Grey.....	28	30	30	31	28	30
Maple.....	30	32	30	32	30	32
White Boilers.....	32	39	32	37	32	37
Beans, small.....	34	42	34	42	34	42
Harrow.....	30	40	30	41	30	41
Ticks.....	29	39	29	39	29	39
Mazagan.....	30	32	30	32	30	32
Oats, ENGLISH feed.....	17	21	18	22	17	21
Short small.....	21	23	21	24	21	24
Poland.....	21	24	21	25	21	25
Scotch, Common.....	18	21	18	25	18	25
Berwick, &c.....	21	27	21	28	21	28
Potatoe, &c.....	21	28	21	29	21	29
Irish, Feed.....	15s 0d to 17s 0d	16s 0d to 18s 0d	16s 0d to 18s 0d	18s 0d to 20s 0d	16s 0d to 18s 0d	18s 0d to 20s 0d
Ditto Potatoe.....	18s 0d to 21s 0d	19s 0d to 22s 0d	19s 0d to 22s 0d	22s 0d to 25s 0d	19s 0d to 22s 0d	22s 0d to 25s 0d
Ditto Black.....	16s 0d to 18s 6d	16s 0d to 19s 6d	16s 0d to 19s 6d	19s 6d to 22s 6d	16s 0d to 19s 6d	19s 6d to 22s 6d

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th Jan. 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat.	Barley.	Oats.	Rye.
	qrs.	qrs.	qrs.	qrs.
Quantity imported.....	525	..	464	..
Do, entered for home consumption.....	244	24	..	..
Do, remaining in warehouse.....	610,691	51,816	238,151	3,450
	Peas.	Beans.	Maize.	Flour.
	qrs.	qrs.	qrs.	cwts.
Quantity imported.....	1,048	409	..	11,924
Do, entered for consumption.....	151	46	5	2,725
Do, remaining in warehouse.....	7,739	2,306	752	256,332

STOCK OF GRAIN AND CLOVERSEED IN BOND IN THE PORT OF LONDON ON THE 5TH JANUARY.

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Cloversd.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
253,971	12,675	81,651	363	3,524	61,472	27,302

BOROUGH AND SPITALFIELDS MARKETS.

	Per ton.			
	JANUARY 1.		FEBRUARY 1.	
	£ s.	£ s.	£ s.	£ s.
Ware, Scotch reds.....	4 15	4 5	4 0	4 10
Marsh Champions.....	3 5	3 15	3 10	4 0
Common reds.....	3 5	3 15	3 10	4 0
London whites.....	3 0	3 10	3 5	3 15
Shaws.....	3 0	3 5	3 5	3 10
Middlings, Scotch reds.....	3 5	3 10	3 10	3 15
Marsh Champions.....	2 5	3 0	2 15	3 5
Common reds.....	2 10	3 0	2 15	3 5
London whites.....	2 0	3 15	2 5	3 0
Shaws.....	1 15	2 10	1 15	2 15

Chats, 12 to 12 1/2s per ton. Onions, 2s to 3s 6d per bush. bask.

PRICES OF HOPS IN THE BOROUGH.

	JANUARY 1.		FEBRUARY 1.	
	£ s.	£ s.	£ s.	£ s.
East Kent Pockets.....	5 5 to 6 15		5 5 to 6 15	
Mid-Kent Pockets.....	3 15	6 6	2 15	6 6
Weald of Kent Pockets.....	3 15	4 10	3 15	4 10
Sussex Pockets.....	3 10	4 0	3 10	4 0
Yearlings, Bags.....	3 3	4 2	3 3	4 2
Old Olds.....	0 18	1 10	0 18	1 10

SMITHFIELD MARKET.

Per 8lbs. to sink the offals.

	JANUARY 1.			FEBRUARY 1.		
	s.	d.	s. d.	s.	d.	s. d.
Inferior Beef.....	2	2	to 2 4	2	2	to 2 4
Do. Mutton.....	2	4	2 6	2	4	2 6
Middling Beef.....	2	8	3 2	2	8	3 2
Do. Mutton.....	2	10	3 2	2	10	3 2
Prime Beef.....	3	8	4 4	3	10	4 6
Do. Mutton.....	3	4	4 4	3	4	4 4
Veal.....	3	6	5 0	3	8	5 6
Lamb.....	0	0	0 0	0	0	0 0
Pork.....	2	10	4 4	2	10	4 4

WOOL MARKETS.

BRITISH.

	JANUARY 1.		FEBRUARY 1.	
	Per lb.	s. d.	s. d.	s. d.
Down Tegs.....	1 7½	to 1 8	1 8	to 1 9
Half-bred do.....	1 8	1 9	1 9	1 10
Ewes and Wethers.....	1 3	1 4	1 4	1 5
Leicester Hogs.....	1 5	1 6	1 6	1 7
Do. Wethers.....	1 1½	1 2½	1 2	1 3
Blanket Wool.....	0 8	1 2	0 8	1 3
Flannel.....	1 2	1 6	1 3½	1 6½
Skin Combing.....	1 1½	1 3	1 1½	1 3

LIVERPOOL.

WEEK ENDING JANUARY 23.

ENGLISH WOOLS have also sold well, particularly the fine sort of skins. An advance of nearly 1d per lb has been realized on most descriptions.—Per lb.—Combing fleeces, 17½d to 18d; Down ewes and wethers, 17d to 18d; ditto tegs, 19½d to 21d; super. skin, 17½d to 18½d; head ditto, 13½d to 15d.

SCOTCH WOOLS.—The improvement we noticed in last week's report is quite maintained this week. The transactions of the week have not been so extensive as last, but above an average amount has been done at very full prices. We must now quote the stock of every description of Scotch Wool as unusually small for the period of the year.

	per stone of 24 lbs.
Laid Highland Wool, from 10s 6d to 11s 0d	
White do. do. ....	14s 0d 14s 6d
Laid Crossed do. ....	14s 0d 16s 0d
Washed do. do. ....	15s 0d 17s 0d
Laid Cheviots do. ....	16s 0d 18s 0d
Washed do. do. ....	22s 0d 25s 0d
White do. do. ....	28s 0d 38s 0d
Import for the week.....	29s do.
Previously this year.....	502 do.

IRISH WOOLS, the stock of which is small, have also sold tolerably well, though the improvement has not been so great as in Scotch and English.—Per lb.—Irish fleeces, mixed lots, 16d to 16½d; ditto wethers, 15½d to 16d; ditto hogs, 17½d to 18½d; ditto combing skin, 14½d to 15½d; ditto short skin, 13d to 14½d. Import for the week, 128 bags; previously this year, 157.

FOREIGN WOOLS.—The sales of foreign wools have been on a moderate scale. Some transactions have taken place in Smyrna, Russian, Portugal, and other sorts, at good prices.—Per lb.—Odessa, fine, 2s to 3s 6d; Portugal R. 1s 5d to 1s 7d; Portugal, low marks, 1s ½d to 1s 2½d; Spanish R, 2s 6d to 2s 9d; Spanish, F, S, 2s 2d to 2s 4d; German fleeces, 2s 2d to 2s 6d; German, assorted, 2s 6d to 2s 9d; German lambs, 2s 6d to 3s 6d; New South Wales 2s 3d to 2s 10d; Russian, 2s to 3s 6d; Buenos Ayres, 4d to 5½d; Mogadore and Barbary, 4½d to 6d. Import for the week, 504 bags; previously this year, 1,361 ditto.

SCOTCH.

Per Stone of 24 lbs.

	JANUARY 1.			FEBRUARY 1.		
	s.	d.	s. d.	s.	d.	s. d.
Laid Highland Wool, from 10 0 to 10 6	10	0	to 10 6	10	6	to 11 0
White Do. Do.....	13	9	14 6	14	0	14 6
Laid Crossed Do.....	13	0	14 0	14	0	16 0
Washed Do. Do.....	14	6	16 0	15	0	17 0
Laid Cheviots.....	14	0	16 0	16	0	18 0
Washed Do.....	19	0	21 0	22	0	25 0
White Do.....	28	0	30 0	28	0	38 0

FOREIGN.

FEBRUARY 1.

The private trade continues very brisk.

The annual statements of the importations of Wool into Great Britain have been completed, and they show the following results:—

The importations into London in 1835 were, of German 19,513, of Spanish 7,721, of New South Wales 9,462, of Van Diemen's Land 6,623, of Cape of Good Hope 824, of South America 2,302, of Italian 646, of Russian 7,561, of East India 773, of Bombay and Turkey 4,531, and of Sundries 119 bales—making a total of 60,075 bls.

The imports into Liverpool were, South American 7,762, New South Wales 3,275, Van Diemen's Land 402, Portugal 2,675, Turkey 2,129, Italian 2,041, Russian 1,060, New York 1,026, East Indies (a new article of import) 624, Spanish 296, and of Sundries 942, making a total of 22,205 bales.

The imports into Hull last year were, of German 42,230, Danish 1,175, Russian 473, Italian 156, Portuguese 97, and Sundries 189—44,320 bales.

The imports into Goole were 7,599 bales of German Wool.

The imports into Bristol were, Spanish 565, and Russian 49 bales—Total 614 bales.

The imports into Gloucester were, German 290 bales.

The total imports were of German Wools, 69,632 bales; of Spanish 8,562 bales; of Australian and Van Diemen's Land, 19,762 bales; and Sundries, 37,127 bales; making a total of imports into this country last year of 135,103 bales. The total imports of 1834 were, 136,150 bales, and, of 1833, 120,680 bales. The principal increase this year has been in the importation of Australian, Van Diemen's Land, Cape, and South American Wools.

BONES.

Since our last there has passed the SOUND, or by ELSINORE, and the GREAT BELT, 1 ship loaded with Bones, bound for England.



## THE POLITICAL COMPANION

TO

## THE FARMER'S MAGAZINE.

[Our object in appending a Political Companion to the Farmer's Magazine, was to put our readers in possession of the opinions of the most talented journalists of the day, on both sides of any important question which might come under discussion. We trust, therefore, that in giving insertion to articles, which seem opposed to the agricultural interest, we shall not be considered as acquiescing in the doctrines therein advanced, our sole purpose being to enable our readers to estimate the truth or detect the fallacies of the arguments advanced.—ED. FARMER'S MAGAZINE.]

## IMPORTANT TO THE LANDED INTEREST.

(From the Tipperary Constitution.)

We beg to call the marked attention of our readers in general, but more especially those who belong to the landed interest, to a matter of a most important, and, at the same time, startling nature, which we are about to bring under their notice. It will be at once perceived by the information which we shall lay before them, that a very insidious attempt is about being made, by which the value of landed property will be deteriorated, in as much as a considerable branch of the agriculture upon which it mainly depends, will be seriously affected. But it is not alone the great possessors of landed property who will feel the pernicious effects of the projected measure; every class of society in this country—the holders of free grain, the farmer, the trader, the manufacturer and the peasant, all will be more or less operated upon by its injurious tendency. Not to keep our readers any longer in the dark with regard to our meaning, we extract the following from the *Liverpool Albion* of the 12th instant:—

The holders of Foreign wheat on bond, are industriously pursuing a plan of organization to obtain from parliament liberty to grind the stocks on hand, and export the produce.—This measure, we believe, experience has shown to be fraught with so much mischief to the fair trader, that we shall continue to give it our consistent and most strenuous opposition.

Some of the most active of the advocates of this measure here were, a few years ago, when the then Government were seeking information as to the expediency of adopting some general measure of this nature, most violently opposed to such a scheme, and it met with their decided disapprobation. At that time they manifested sincerity in their opinions, for they were not holders of foreign wheat—now they hold largely.

This proposition to obtain the intraction of a law, by a side wind, would probably never have been supported here, had not the fraudulent, but gainful traffic in Foreign corn, through the Isle of Man, been stopped by the legislature in the last session. To accomplish this measure, it is well known we took a leading part.

The imports of corn from the Isle of Man into this port alone, were, in

1833.	11,970 qrs.	Wheat	2,202 qrs.	Barley
1834.	13,595	do	1,524	do and
to June 30, 1835.	9,618	do	5,117	do

while from the 1st July, when the importations of Foreign corn into that island ceased to this date, the entire quantity only amounts to 2,597 quarters wheat, and 1,315 quarters Barley; but the accession to the stock of bonded wheat at this port, in a few weeks after the repeal of the Act before alluded to, amounted to 17,411 quarters by vessels destined to call at the Isle of Man for orders.

From these statements our friends, the Irish millers

and merchants, will be enabled to judge of the sincerity of the advocates of this scheme, in their assertions, that "their plan is a direct bounty to the Irish and English millers to export flour made from Irish and English wheat, and is therefore a bounty to the Irish and English farmers."

There have already been purchases of Irish flour, in this market, for the purpose of being exported to the North American States, and these will go on extensively as soon as the navigation to our colonies opens; but how the letting loose of 500,000 quarters of Foreign wheat, to be manufactured for a like purpose, can operate as a bounty, or increase the export of British or Irish flour, we must leave to wiser heads than ours to determine. We again recommend the millers and merchants of Ireland, to communicate on this subject with their parliamentary representatives, that they may be prepared to oppose the application whenever it comes before them.

Upon the intelligence of such a projected measure reaching them, the Limerick Chamber of Commerce, and the Clonmel Commercial Association, with a promptitude and decision which is highly creditable to them, immediately assembled, and expressed in strong terms their opinions condemnatory of them; and passed energetic resolutions to oppose and frustrate, if possible, by every legitimate means of petition and remonstrance so designing and perilous an expedient. We call earnestly upon the landed proprietors to imitate such an example; nay more, to out rival them by the vigour and perseverance of their exertions; for it behoves the commercial bodies of this country to look with apprehension on the coming evil, and to endeavour to avert the threatened mischief; far, far more imperative is it upon the great landed proprietors, the peers, and the representatives of the people, to be up and stirring, and unite in one firm, consistent opposition to the inroads of an interested speculation which may benefit the few by the injury of the many. It is a question of vital importance to their tenantry, and the aristocracy should recollect that in furthering their interests and protecting their rights, they are best securing and advancing their own. The property of the landlord must increase or be depressed in the same ratio with that of the farmer; for there is an identification of interest between them, that never can be separated; and any blow that is aimed at the latter must strike home at the rent-roll of the former. It is therefore imperative on the landed proprietors to make a vigorous stand against this measure. The representatives of the manufacturing towns in England will support it in obedience to the cry of their constituents for a cheap loaf; our representatives have their own and their electors interest at stake in it. Let them then meet, consult, and petition against its

introduction amongst us; let them in their places in parliament, expose the selfish and interested nature of the intended plan, and then vote resolutely against it, and thus protect themselves, their tenantry, and the commercial interests of this country from the infliction of a serious and manifest injury.

The following are the spirited resolutions entered into at Limerick and Clonmel:—

CLONMEL COMMERCIAL ASSOCIATION.—At a meeting of the Clonmel Commercial Association, held the 4th of 1st month (January,) 1836.

Letters and other intelligence have been submitted to this Body, mentioning that an application is intended to be made to the legislature for liberty to manufacture the Foreign wheat, now in bond, and export flour in place of it, and that those interested are concerting measures to effect this object.

That when permission was before granted, to admit Foreign wheat, then in bond, to be manufactured, and for every quarter of wheat released for this purpose, a proportion of flour was to be exported, still admitting a part of the produce to home consumption, the operation of this liberty was attended with very injurious effects to the legitimate holders, fair traders in, and manufacturers of, British corn, and led to frauds of an extensive and destructive nature.

And as no impediment now exists to exporting bonded wheat, and manufacturing it elsewhere, we look on the present contemplated scheme, as opening a door that will be used as a cover for fraud; enabling holders of bonded wheat to introduce a part of its produce into home consumption, to the manifest injury of the farmers, present holders, fair traders in, and manufacturers of, British wheat.

Resolved—That in case of such an application being made that petitions to parliament be prepared and presented on our behalf, stating our views on the subject, and soliciting the protection of the legislature, from the injurious effects of such a scheme.

Resolved—That our president be instructed to communicate with such Peers, Members of Parliament, Landed Proprietors, Commercial Bodies, and Merchants as may be considered most interested and influential, calling their attention to the subject, informing them of our opinion, and requesting their co-operation in opposing the project, and thereby preventing its depreciating tendency.

CHAMBER OF COMMERCE.—Limerick, 18th Dec. 1835.—Information having been laid before the Directors of this body, that meetings have been held by speculators in Foreign grain, to petition the legislature to grant permission to grind the Foreign wheat now under lock, for exportation in bond, and that active measures are now in progress in the different ports in England to effect this object.

Resolved—That the operation of a partial law, such as now contemplated, when tried in 1825, led to fraud of the most extensive and destructive nature, and instead of serving the interest of the importers of Foreign grain, effected but an uncertain relief, while it did injury to the legitimate trade of the kingdom.

Resolved—That at any time the manufacture of Foreign wheat for exportation would be injurious to the agriculture and the trade of these kingdoms; but now, at a time when both are depressed to an unprecedented degree, such a measure would at once entail incalculable loss on the farmers, the millers, and the agriculturists of Ireland.

Resolved—That a petition to the legislature on this subject be prepared, and presented at the opening of Parliament.

Resolved—That the different Commercial Bodies all over Ireland be presented with copies of these resolutions, requesting them to co-operate with us, and to engage the attention of the agricultural interests in their districts to a subject of such vital importance to them.

#### AGRICULTURAL DISTRESS.

It has been for some time the practice of certain Tory Journals to arrogate to themselves the title of

“the farmer’s friends,” and to brand not only the whigs but all the conductors of liberal journals who take a different view of the means by which the condition of the tenant is to be ameliorated, as enemies to the landed interest, and eagerly seeking its destruction. To such we recommend the perusal of the subjoined able article from the “OLD ENGLAND,” a paper established for the express purpose of *upholding and inculcating high Tory principles*.

We have ever shown ourselves alive to the reality and severity of agricultural distress. Regarding the agricultural interest as the most important subject of national concern; as the basis of national prosperity, and the permanent security for our national glory and pre-eminence, we have ever held up its condition and prospects as the most vital question which can engage the attention of the Legislature, or of those who study the diffusion and perpetuity of public happiness. We have not, however, closed our eyes to the fact that among those who talk most vehemently on the subject are some whose motives are questionable, and whose statements are consequently liable to suspicion. It cannot be denied that among both landlords and occupiers there are some whose difficulties arise from improvidence or ill-management. Those who raised money on mortgage to purchase, during the height of war prices, land which will not now defray even the interest of the money so raised, can only claim the commiseration due to all disappointed speculators. Those practical farmers who have not availed themselves of the improved and economical modes of husbandry which have enabled more enterprising or alert competitors to undersell them in the market are only suffering the natural penalty of the purlind and the tardy. It is in agriculture as in every other pursuit; if discoveries are made which reduce the cost of production, the market will decline, to the inevitable injury and ultimate ruin of those who from prejudice or ignorance neglect to avail themselves of the advance of knowledge. When the application of science to machinery enabled the manufacturers of cotton goods, for instance, to produce their commodity at a lower rate than formerly, the price of such goods necessarily became reduced in proportion, and if any manufacturers had persisted in the costly and infartificial system formerly in practice, they must infallibly have been victims to the success of their rivals. So it is in the production of food. The application of science to the process of agriculture within the last twenty years has been scarcely less ingenious, persevering and successful than to any branch of our manufactures, and it is undeniable that the reduction of prices has to a considerable extent been owing to the operation of this cause.

A reduction thus occasioned is certainly no cause for lamentation or alarm. It argues equal prosperity to the producer, and a more abundant supply to the consumer; it is a national benefit, and an injury to such individuals only as have wilfully or negligently brought their difficulties upon themselves. At all events, it is perfectly clear that such fluctuations are utterly beyond the reach of legislative control. No sane man can think that any legislature can or ought to tax the ingenious, enterprising, or economical farmer in order that he may not be able to bring his corn to market at a cheaper rate than his neighbour who displays none of these qualities, or possesses them in an inferior degree. This is not a question of free trade or restriction; it is not between the foreign and the home grower; it is simply between the enterprising and the prejudiced, the diligent and the slothful, the economical and the profuse. We do not ask at what rate the French or the German, or the Polish, or the American farmer can afford to sell his produce and set that standard up for the regulation of the British farmer, but whether any British farmers can successfully prosecute their calling in the present state of the market; and if we are answered in the affirmative, we then proceed to inquire who are they who cannot, and why can they not?

We are aware that, if we accept the statements of

some among the most prominent members of the Agricultural Associations, we shall receive a flat and most decided negative to our first question. If we are to take the statements and calculations of Mr. Cayley, for instance, without qualification, we should believe that the cultivation of land cannot be carried on without absolute loss, irrespective of rent altogether; that if rents were annihilated to-morrow, the possessions of landlords reduced to such lands as they hold in their personal occupation, and every occupier endowed with the fee simple of his farm, cultivation would still be a losing pursuit. It is impossible not to suspect such a representation of inordinate exaggeration. Two simple facts convict it of absurdity; one, that on numerous and extensive estates, which it would be easy but invidious to specify, every individual tenant finds himself able, not only to meet the demands of his landlord, as well as all other charges on his occupation, but fully to maintain that becoming respectability which every friend to his country must wish to see enjoyed by the yeomanry of England; the other, that if a return were made of the price fetched by all the agricultural landed property sold during the last season, it would be found that the average exceeded, rather than fell beneath, thirty years' purchase on the actual rental. No one can believe, under such circumstances, that land is really less than worthless.

Startled by these obvious inconsistencies and exaggerations; impressed with the deepest consciousness of the vital and paramount importance of the agricultural interest; aware of the utter impracticability of any attempt to revert to a paper currency; and painfully alive to the inextricable embarrassments in which the encouragement of delusive hopes among the farmers must entangle any administration which may be formed, we have over and over again pressed upon the sincere friends of the farmer, as well as upon the farmer himself, the necessity of boldly, unsparingly, and narrowly, investigating the second question we have submitted. We make no apology for renewing our importunity. We have seen, in an Edinburgh paper, an able article on the subject, which fully confirms the view we have taken of the causes of much of the existing distress. The writer deals in facts, and facts are stubborn things. He enumerates the improvements which have been effected of late years in the husbandry of East Lothian, and demonstrates that they have enabled the agriculturist to produce his staple at so reduced a rate of expense, as to account for a very considerable reduction in the market without infringing on his due profits. The farmer who does this must necessarily drive his rival out of the field, and his exclusion is beyond the reach of legislative redress. If one farmer employs three, four, or five horses to do what another effects by two—if he employs two labourers when another employs one—if he wastes his seed and his land by broadcast turnips—if he allows straggling hedges to occupy and impoverish valuable land—if he persists in inefficient and obsolete modes of drainage—if he threshes his corn by the clumsy and tedious apparatus of a couple of sticks cut from the nearest plantation, while his neighbours employ steam or water power, what help can he expect from Gods or men? He is the victim of his own obstinate prejudices or impenetrable ignorance, and however we may deplore his gradual but inevitable ruin, we cannot but admit that he has no one to blame but himself.

We renew, therefore, earnestly and sincerely, the advice we have formerly given to the Agricultural Associations, and to all who would prove themselves the farmers' friends. Let them apply themselves, not to the diffusion of opinions about the currency, which, whatever may be their abstract justice, can never be reduced to practice; and which, if acted on, could only afford a temporary relief, but to the circulation among the farmers of plain and practical information as to the state of husbandry in various districts, and the resources which art has opened to them for the more available application of their means, carry to the homes of those who, from their position and habits, are unable to collect information for themselves, the results of more fortunate experience. Much is said of the prodigious

benefits which the agricultural society of Scotland has conferred upon the farmers of that country; and it is, in fact, scarcely possible to exaggerate them. But why do we hear so little of *the means* by which these objects have been attained? Why do we see so little effort made to copy or to emulate them? Contrast their publications with those circulated by the Cayleys and the Bernards in the south. They are not filled with interminable dissertations, or rather mystifications, about political economy and the currency thimble-rig; they contain practical details of experiments in every department of the science of agriculture; they tell the farmer how his neighbours drain their land, fatten their cattle, or arrange their rotation of crops; what new manure has been tried: what new varieties of grain or grass have been introduced; what are the actual or probable necessities of the market. This is what the farmer wants, and not soporific lectures, which seem to emanate from the pragmatist sciolism and prosy pomposity of a Robuck, grafted on the georgical propensities of Triptolemus Yellowley. Most confidently do we hope that the robust and masculine sense of the English agriculturists will spurn this mischievous drivelling, and imitate the practical wisdom of their Scottish brethren.

### THE AGRICULTURISTS.

(From the Maidstone Gazette.)

“Man is the sport of circumstances, when  
The circumstances seem the sport of men.”—BYRON.

By the nature of his avocation, removed as he is “far from the busy hum of men,” the farmer is more liable to be imposed on than persons of almost every other profession. From the absolute necessity of constant personal superintendance over the affairs of his farm, he may be almost said to live out of the world six days of every week, and only to come out and wrestle in worldly knowledge with his more bustling countrymen on market days. We may add to this, that generally speaking the farmer has a distaste for politics. He loves to cultivate old English feelings, and he would rather extend his hospitality to all around him, and exchange social sentiments with his old friends by his own fire-side, than be appointed principal wrangler to the most powerful faction that ever existed. So long as he can gain an honest and respectable subsistence by his industry, his knowledge of business, and his capital,—he never even murmurs, and we would defy the most smooth-tongued corruptionist to make a political tool of him. There are times, however, which, as George Washington once said, “try men's souls.” When the farmer finds that all his industry is exercised in vain, that all his professional knowledge is of no avail, and that his capital is fast sinking—it is not surprising that the very nature of the farmer should be changed; and that, from a domesticated, quiet, and contented man, he should become a very discontented one. Burke says that the most insignificant insect in the creation, endeavouring to rescue itself from cruelty and oppression, is a respectable object in the eyes of its creator; and the farmer, living as he does in a land of plenty, and knowing that he practises frugality and economy, and works late and early, to maintain an honourable station in life,—would be more contemptible than any beast of the field, if he were to remain contented, under present circumstances.

In order, however, that he may take the proper steps to relieve himself, and direct his discontent in a direction that will be likely to remove its causes, he must, first of all, ascertain what the causes are? He need go no further than his own farm-buildings

to find a practical illustration of these causes. He will see, perhaps, a dozen sturdy willing horses in his stables, whose business it is to work hard, in order to raise the crops of the farm, and who would never jib nor grumble, providing they have the fair share of food, lodging, and attention, to which their industry is entitled. These are the types of the farmers. In the stock-yard will be found an equal number of black cattle, who seem to have reversed Moliere's maxim, and to live only for the purpose of eating. These are the unproductives, the sinecurists, the pluralists, the non-resident and overpaid parsons, the lady pensioners, the unnecessary place-holders, and the whole tribe of tax-eaters,—the only allegorical distinction between these persons and the stock, is, that the stock at their death generally repay people for the trouble and expense they have occasioned during their lives, but the *genus* of unproductives proverbially never die. In the farmer's barn will be found a host of lesser and still more worthless vermin. These are the human rats, the toad-eaters, the tuft-hunters, the conductors of Tory newspapers, and the hangers-on of aristocracy,—for whom no employment is too dirty—no mode of living too nauseous.

What would a farmer do, if he found that his live stock were daily getting fatter and more comfortable, while the ribs of his horses, the more valuable animals, were in danger of cutting their skins? Would he not make an inquiry into the matter? If he found, by that inquiry, that this state of things was caused by the stock eating too much, and the horses eating too little, what would he do next? Would he take part with the stock, on their promising to refrain from devouring so much in future; would he endeavour, like the Frenchman, to teach his horses to live without eating; or would he not rather side with his tried friends, who were starving, and take measures for stinting the idle, in order that the industrious might get the fair reward of their labor?

What is now the position of the farmer? Having discovered that he himself was daily growing poorer, while the parsons and the corruptionists were daily growing richer, he three years ago, set about inquiring into the cause. He was told that it was in consequence of heavy burdens and low prices. It is impossible to raise the prices, as it is to teach his horses to live without eating. What then will relieve him? He must reduce the burdens of the country. He must lend his aid towards procuring a reduction of rents, the abolition of tithes, of sinecures, of unnecessary places, and of unmerited pensions. It is as absurd that he can expect (even if he were unfair enough to try) to throw the burden from his own shoulders on to those of the manufacturers,—as to suppose that he can benefit himself by taking the scanty allowance from the horse that turns his threshing machine, and giving it to the horse that draws his plough. The farmer and the manufacturer must rise and fall together, and (although it may be some time in adjusting itself) every thing that benefits the one must ultimately benefit the other. If the manufacturer gets cheap bread, the farmer and his men get cheap manufactures, and *vice versa*. It is not so, however, with the unproductive classes. It is their interest that there should be dear bread and cheap manufactures. This would be also the farmers' interest, if his rent and tithes were regulated by the price of corn. It is notorious, however, that the parsons and the landlords stick to their high-price rents and tithes, let the price of corn be what it may. It is their object to get high rents and tithes, with *high prices*, if possible; but at all events—high rents and tithes; and when, as at pre-

sent, the low prices are ruining the farmer, they will tamper with the currency, enact another set of useless corn laws, or do any thing but what they ought to do.

It is this class of gentlemen who are now endeavouring to bend the simple farmer to their interested purposes by cajoling him into joining agricultural associations, whose real object is that of supporting the present corrupt and unjust system of taxation, by which the property and industry of the poor only are taxed, while the rich contribute comparatively nothing to the expenses of the state. The following is a remarkable passage as to the objects of these associations. It is from a new paper called "The Agriculturist," published under the encouragement of the central agricultural association in London, and will make the farmer open his eyes:—

"We unhesitatingly tell the landlords of the United Kingdom, that if they now waver, they are lost,—their *power*—their *property*—aye, even their *persons* are in danger! Gladly do we rejoice at the cry that has gone forth from the metropolitan press, *against rents*; the *Times*, and the *Chronicle*, the *Globe*, and the *Courier*, the *Sun*, &c.—journals of every possible shade of politics, have, under the accursed influence of the monetary interest, concentrated their power in the metropolis, and harked each other on in the shout of "*down with rents*,"—DOWN WITH RENTS! If rents are to be annihilated, what becomes of the aristocracy? Can the monarchy be upheld without that intermediate class of society, which equally poises the scale between a fierce democracy on the one hand, and an unbridled despotism on the other? Fatal delusion! Aye, fatal even to those who plan, and endeavour to carry into effect, their terrific projects; for with the downfall of our balanced Constitution, a debt of £800,000,000, created in a depreciated currency, would not withstand the first moment of convulsive anarchy—an anarchy in which every thing that makes life worth preserving would be sacrificed. Our lands would be untilled; workshops silent; our manufacturers beggared; our peasants starved. Fire and famine would desolate the land; our green fields would be fertilised with the bodies of the best and noblest of our fellow creatures, and our beautiful rivers empurpled with their gore; until a devastating and sanguinary struggle would be terminated in a long night of despotism, when some iron-clad heel would trample with impunity on the dearly-earned liberties of our country."

Here's a terrible clutter. Let us just see what it is all about. It seems that the real cause of the farmer's distress is seen and acknowledged by all classes, and that the organs of every party cry "Down with the rents," of course meaning, "*reduce the rents*." The champion of the landlords considers lowering the rents equivalent to *annihilating* them. This annihilates the aristocracy, which annihilates the monarchy, and knocks down the national debt. He at length launches us in into "*convulsive anarchy*," and starts off on a voyage of discovery after untilled lands, silent workshops, beggared manufacturers, starved peasants, fires, famines, green fields fertilised with our fellow creatures, beautiful rivers empurpled with gore (!), devastating and sanguinary struggles, long nights of despotism, iron-clad heels, and "all that sort of thing."

Now this fustian may be very well adapted to raise the sensibilities of young ladies in a fashionable novel—but it is not precisely the sort of logic which will impose on slow thinking people, who judge of these matters by the old fashioned rules of common sense. From what we know of the farmers, *they* are not to be caught with such nonsense.

The farmer has no greater enemy than the man who would disguise from him the truth, from the fear of offending his prejudices. All we ask is, that the agriculturist will consider carefully before he again

suffers himself to be made the tool of the landlords. The more he considers, the more convinced will he be that he can only gain relief by a reduction of rent, tithes, and taxes.

### TITHES.

(From the Mark Lane Express.)

In another part of our paper will be found an article entitled "PROPOSALS for a REDEMPTION OF TITHES," by C. Hillyard, Esq., to which we invite the especial attention of our readers. Mr. Hillyard is president of the Northamptonshire Grazing Society, and is very generally known as one of our best and most intelligent practical agriculturists. His whole life has been devoted to agriculture and all subjects connected with it; his devotion to the cause cannot be for an instant doubted, and his pen has been frequently exercised in advocating the interest of the British farmer, and in communicating useful practical information. It is scarcely necessary to observe that in addition to the general feeling which subsists as to the advantages which would result from a commutation of tithes, the circular which has been recently issued from the Home Office, and which appeared in our paper of Monday last, seems to indicate an intention on the part of Government to take some steps upon the subject in the ensuing session. Mr. Hillyard's *brochure* should be circulated as extensively as possible, not only for the purpose of making known the sound practical view which he takes of the subject, and for the purpose of eliciting the opinions of others upon his plan, but also of inducing others to follow his example by communicating their views on the question.

It affords us much satisfaction to find that the opinions of Mr. Hillyard, as to the *increased quantity of wheat produced*, and the consequent effects upon its present price, coincide with the opinions very recently advanced by us. In the introductory part of his article he says—

"Ireland sends double—or perhaps treble—the quantity of wheat to this country that it formerly did. Immense quantities of fen land, from being effectually drained, now produce most abundant crops of wheat, while they formerly produced only uncertain crops of oats. Much down and common land is now inclosed, and produces wheat. Add to these circumstances, that the system of agriculture is improved: that the land (excepting the very poor soils, the produce of which will not repay the expenses of cultivation), now produces more grain than it formerly did. Under all these considerations, it appears to me, to be quite out of the question to expect, for some years to come, anything approaching to high prices for corn. The present price of wheat would certainly be too low to govern the price for redemption, for land cannot be bought at such corresponding low price of produce: besides which, the present very low price of wheat is, in a great degree, caused by two successive abundant crops; and, when that *superabundance shall have ceased, the price must rise.*"

From this it will be perceived that he

ascribes the present *unnaturally* low price of wheat to an extraordinary supply, which will speedily adjust itself as soon as that supply shall be in some degree lessened. His observations upon the mode in which rent should be estimated, although expressed in half a dozen words, are conclusive and incontrovertible. Speaking of tithes he says—

"The value of the tithes of all descriptions of land ought to be estimated by the value of the produce which can be raised from it, by common husbandry; that value ought also to govern the estimation of rent."

*The value of the produce which can be raised upon the land* is the criterion for estimating the amount of rent, which we have always contended for when discussing that question. It would be a work of superogation to advance arguments for the purpose of proving how great the benefit to agriculture would be were the amount of tithe to be paid permanently fixed. We prefer quoting the closing observations of Mr. Hillyard, and at the same time observing that we shall be most happy to give place in our columns to communications upon the subject of tithes, by the speedy and final settlement of which question we feel confident more benefit would be derived both by landlord and tenant, than from any other measure affecting the landed interest, which can emanate from the legislature, be the Government Whig, Tory, or Radical.

"Amongst the many national advantages to be obtained by a commutation, or redemption of tithes, there would be this. There is a great deal of inferior old pasture land, with very bad herbage, that would, were it not for the extra demand made for tithes, repay the expenses of ploughing up and taking two crops off it, well cleaning it, liming it, draining it if needed, and then sowing—say three parts of it—down again with grasses suited to the soil; thus finding additional employment for the poor of the parish, and thus enabling the occupiers to keep as much stock, or more, on three parts of their farms, as they had formerly done on the whole."

### GUERNSEY AND JERSEY.

(From the Public Ledger.)

The importation of French agricultural produce into the islands of Guernsey and Jersey is at length felt to be a hardship by the resident farmers, and excites their opposition. Its operation on our own corn-market has been the importation into England of large quantities of French corn, *via* Guernsey and Jersey; or the release from local consumption of that produced in the islands, their home markets being supplied with the French grain. In either case it has led to a direct evasion of the English corn laws. The Guernsey and Jersey farmers—principally the latter—have now put forward a project for stopping the continued importation of French produce, as most injurious to their interests, and as unnecessary as far as the local consumption is concerned; which project, it appears, is resisted by the British residents—those whose food is somewhat cheapened by the present state of things, and whose commercial transactions would be likely to be affected by any change. Public meetings are now holding at Jersey on the subject.

## THE REVENUE.

*(From the Morning Chronicle.)*

We lay before our readers the Revenue Accounts, from 5th January, 1835, to 5th January, 1836.

The Revenue of the year ended 5th January, 1835, was 43,043,876*l.* For the year just ended, it is 42,430,207*l.*

The transference of several branches of Revenue from the Excise to the Customs, accounts for the increase in the Customs of the year of 1,686,211*l.*, and of a decrease in the Excise of 1,621,295*l.*

On the Year's Taxes, the decrease is 374,091*l.* In the Stamps, too, there has been a decrease of 12,925*l.* The increase in the Post-office is very great—57,000*l.*

The decrease on the year amounts only to 613,669*l.*—a sum beneath the calculated amount of reductions.

The Revenue for the quarter ended 5th January, 1835, is 11,399,561*l.*; for the quarter just ended 11,572,528*l.* The increase on the quarter is 333,749*l.*; the decrease 210,732*l.*, leaving a balance of increase on the quarter of 172,967*l.* The increase is in stamps 64,085*l.* and Post-office 22,000*l.*

We have already alluded to the transference of the tea duties from the Excise to the Customs. The public must be aware that of late years there have been very large reductions of taxation. Considerable branches of the revenue have been altogether cut off, others have been materially reduced. Where, therefore, the amount of receipts is sustained, it is a proof of the increased and increasing resources of the country. Of one thing we are certain, that to those who have imputed principles inconsistent with good faith and good government to our present rulers—to those who have exhausted all terms of reproach in describing them as Jacobins and Democrats—enemies to order, prosperity, and peace—the present state of the country must be gall and wormwood. There is a dilemma from which they cannot escape. They must either admit that peace, prosperity, extension of commerce, and improvement of manufactures can exist concurrently with ignorance, incapacity, treachery to the King, and treason to the constitution; or, they must admit that, the ends of good government being attained, the existence of a good government cannot be greatly controverted.

## BONDED CORN.

*(From the Times.)*

The leading houses in the corn trade, both in London and in Liverpool, are earnestly occupied on the means of bringing to maturity a plan, which is said to have been already under the consideration of Government, by which foreign wheat under bond is to be allowed to be manufactured into flour and exported. Many of them are extremely sanguine on the subject, and believe that it will become the medium of introducing a new and valuable branch of trade into this country, without prejudice to the agricultural interest. They conceive, too, that under proper regulations no fraud can possibly be committed under it. They are preparing, consequently, a series of resolutions, which are to undergo discussion at meetings of the trade, to be convened for this purpose. The ultimate object at which they aim is that of establishing of the principle that all foreign wheat now bonded in this country, or hereafter to be brought into it, may either be manufactured into flour for exportation, or reserved for the home market, at the option of the importer. But they would be content, it seems,

in the mean time, to accept permission only so to manufacture the stock of bonded wheat on hand, which would allow a fair trial of the experiment without the slightest risk of compromising any other interest in it. They have little doubt that such an experiment would be so satisfactory and conclusive in its results as to lead to the enactment of a general law on the subject. The chief argument by which they seek to reconcile the English agriculturists to the measure is, that a large proportion of wheat of home growth would be used along with the foreign, in order to produce flour of the requisite fineness for the West Indian and South American markets. From the efforts now making in a trade of so great extent and importance, the measure will probably be forced on the attention of the Legislature in the course of the approaching session.

## STATE OF FRENCH AGRICULTURE.

*(From the Morning Chronicle.)*

M. Duchatel opened the Sessions of the Council of Agriculture, and of the General Councils of Manufactures and Commerce, on Tuesday last, in a speech which affords some indication of the progress of opinion in France, in favour of the abolition of all unnecessary commercial restrictions. The agricultural interests of France, like those of our own country, are suffering from one of the causes which are most conducive to the prosperity of the manufacturing classes, namely, the abundance and consequent low prices of every kind of grain. The Minister candidly told the Council that he could do nothing with a view to relieve them from this state of things. It was not in the power of Legislation to propose a remedy for it. He stated at the same time, that amidst this general depression in the prices of produce, agricultural improvements were making the most rapid strides throughout the kingdom. New methods of cultivation were every day devised; new implements were invented; and the growth of sugar from beet-root was becoming so extensive and so perfect as to enter into competition with the sugar of the tropical countries.

RENTS.—TO THE EDITOR OF THE GLOBE.—Edinburgh, Jan. 16, 1836.—SIR,—Your valuable paper has brought forward much on the distressed state of the agriculturists. The subject is no ways difficult in my apprehension. It simply resolves into the fact that rents are too high. I am decidedly of opinion that landlords are in no way to blame for that—the fault lies entirely with the tenants. Whenever a farm in this country falls out of lease, there are always a variety of offers for the new lease. The landlord generally selects the highest offer who is possessed of capital sufficient to stock the farm properly, and who also must find security for payment of the first year's rent. Surely a tenant who can do so should be best judge as to the rent he should pay. He is possessed of considerable capital, which he must deprive himself of if he gives too high a rent. I think I have plainly established that the tenants, and not the landlords, are the cause of the rents being higher than they probably ought to be. You would render a service I think to the public, if you would put this view of the case into the hands of some person who would prepare something for the public; it might be of use—it would relieve the landlords of a great share of the blame which is laid on them by persons who do not reflect on the subject.—I am, Sir, your most obedient servant,—A FRIEND TO JUSTICE, AND NOT A LANDED PROPRIETOR.

## TURF INTELLIGENCE.

No person possessing the smallest particle of that soft medullary-like substance, called brain, will deny that, to the emulation of the turf, we are mainly indebted for a breed of horses far superior to whatever before appeared upon the surface of the earth; and that in a general national view the turf establishment is second to no other institution. We have through life experienced the utmost delight from watching its operations; like other sublunary concerns, where opposing interests come in contact, it is liable to abuse; but, as we are very well aware that false accusations have been frequently brought against it, we have always come forward with alacrity in its defence on occasions similar to the late attempt of the Grizzly Muff of the London press, and his attendant Mocking Bird, when these Screech Owls endeavoured to excite an alarm by the clumsily-fabricated report of a rascally offer made to Mr. Mostyn in regard to his filly, Queen of Trumps. However animated by the same feeling which induces us to expose the machinations of ignorant literary mountebanks, we equally extend our unqualified reprehension to all dishonorable attempts in turf affairs which come within our reach. It is with heartfelt regret we place before our readers, the following statement of one of the basest transactions which ever disgraced the turf. It requires no comment, at least on the present occasion—it speaks very plainly for itself—deliberately-concocted fraud breathes throughout:—

### THE DELICATE INVESTIGATION IN IRELAND.

“TURF CLUB, DUBLIN; 9, UPPER RUTLAND-ST., 5th Dec. 1835.—At a meeting of the Turf Club, held at this house, this day—present, Lord Howth, Colonel Westeura, Colonel Armstrong, Hon. Captain Vaughan, Mr. Gustavus Hume, Mr. Casey, Mr. Purcell, Mr. Pottinger, Mr. Rutledge, Mr. G. Knox, Mr. Osborne, Mr. V. Blake, and Captain De Montmorency—it was moved that Colonel Westeura and Lord Howth resume their office as stewards, when, in consequence of the unavoidable absence of Mr. Maher, it was moved by them that Colonel Armstrong be appointed to fill his office.

“The following resolution was then passed:—Resolved, That taking into consideration the question that has been raised, and the public proceedings which have taken place, respecting the identity and ages of Caroline and Leinster, both the property of Mr. Edward Ruthven, a member of the Turf Club, the Stewards are bound, in justice to him, and in vindication of the character of the Club, to require Mr. Ruthven to produce before them both Leinster and Caroline, at such time and place as may be most convenient for all parties, to be fixed on by the Stewards of the Turf Club; and we beg to call on the Stewards to carry this resolution into effect.

G. W. Vaughan  
W. Casey  
Gustavus Hume  
Peter Purcell  
H. De Montmorency

Thomas Pottinger  
J. Osborne  
D. W. Rutledge  
George Knox  
Val. O'C. Blake

“On this resolution being presented to the Stewards, they directed Mr. Hunter to write to Mr. Ruthven officially their approval of the above, and to require his compliance with the same, as per annexed letter:—

“9, Upper Rutland-street, 5th Dec. 1835.

“SIR,—I am directed by the Stewards of the Turf Club to inform you, that objections having been made to them by Lord Miltown, Mr. Hendrick, Mr. J. Kelly, and Mr. Henchy, as to the ages and identity of Leinster and Caroline for the Sligos, Pagets Sweepstakes on Tuesday, and match, Fusileer v. Caroline, for all which races your horses came in first in the last October Meeting, they deem it necessary to inform you, that they will enter into an investigation of those cases on Monday, the 28th of December, at 12 o'clock, at the Turf Club House, Kildare; and in pursuance of the foregoing resolution, unanimously agreed to at a meeting of the members of the Turf Club, held here this day, they call upon you to produce Caroline and Leinster on the above-named day, at the time and place already specified, when the Stewards will be in attendance to give their final decision on the races in dispute. I am further directed to request you will, without loss of time, send me an immediate answer to this communication. I have the honour to be, Sir, your most obedient servant,  
J. R. HUNTER, Sec.

“Edward Ruthven, Esq., M.P.”

The inquiry into the identity of Caroline and Leinster, which has excited so much interest in the sporting circles in this and the sister country, was resumed on Monday last, before the Stewards, Earl Howth, the Hon. Colonel Westeura, and John Maher, Esq., and the following well known members of the Irish turf:—Hon. Captain Vaughan, Colonel Armstrong, Captain Hume; Messrs. J. W. Digby, Hendrick, Robert Brown, A. Mansfield, Watts, Pottinger, O'Connor, Henchy, P. Purcell, J. R. Hunter, H. Hendrick, Disney, Hutchins, R. Holmes, R. Hunter, &c. It will be recollected that the last meeting of the stewards closed with a resolution of the arbitrators, that, in order to bring the question of identity to a conclusion, it was necessary that Mr. Ruthven should produce the horses described by him to be Caroline and Leinster, in order that they might be seen by the English witnesses, Lord Miltown having stated that he could not bring his case to a close unless this was done. A notice of this resolution was given to Mr. Ruthven, who declined to obey it. Having introduced the matter so as to enable our readers to connect the previous proceedings with those about to be detailed, we shall shorten the account by stating that after Lord Miltown, Mr. Hendrick, and Mr. Kelly (the parties opposed to Mr. Ruthven in the investigation), had declared their willingness to abide by the decision of the Stewards, Mr. Ruthven's letter was read, withdrawing himself from the Club, and certificates of character for the English witnesses were produced. No one appearing for Mr. Ruthven, and the stewards having in consequence decided on treating it as a *prima facie* case, Lord Miltown called Mr. Walker, a veterinary surgeon, who proved that he examined the filly called Caroline, at the last meeting at Naas; that she had an old three-year-old mouth, with six teeth full shot out, and that the boy who brought her said, she had won a good deal of money in England. This witness also spoke to Mr. Ruthven's extraordinary politeness to him previous to his looking at the mare. This evidence was partly corroborated by Mr. George Watts, and a Mr. Green

was in attendance to speak to the same point, but was not called.

Earl Miltown then stated that, on Mr. Walker declaring his belief that the filly (which beat with such great ease his colt, one he had reason to think a good one) had a three-year-old mouth, with regret he (Lord Miltown) had to suppose that there must be some fraud. His lordship wrote to Mr. Charles Greville, at Newmarket, to know if a filly, answering the description of Caroline, had been sold there lately, and received a reply. His lordship proceeded to read the following:—

“Newmarket, Oct. 26, 1835.

“DEAR MILTOWN—I think it is possible I may have discovered what you want. Becassine, three years old, was bought by Osbaldeston, of Payne, at the end of July: he told Payne he had purchased her for a friend; she was sent to Manchester the end of July or beginning of August, whence it is probable she went to Liverpool, and was shipped for Ireland; in many particulars she exactly answers your description; she is chestnut, slight, bloodlike, with white down her face, stily on the fore legs, frequently in season, but she is light, and not “rather a dark chestnut.” With respect to lop ears, there is great difference in the statements, some asserting, and some denying, that she has lop ears; however, the animal may be easily identified if it be Becassine, as she has a black spot upon one of her quarters; has one white heel behind, and some white above the girthing place, besides white hairs on many parts of her body. If the filly should bear these marks, if you choose to send over here you can easily procure some one to identify Becassine.

“Very truly yours,

“C. GREVILLE.”

“Newmarket, Oct. 27, 1835.

“DEAR MILTOWN—I think it right to add to my letter of yesterday, that Becassine is pinioned at the elbows and turns out her toes, one of the points you mentioned, and there seems to be a doubt whether I stated correctly that she has a white heel behind. Sir Sir M. Wood says she has none—Sir Francis told me that she has; but the marks I have told you of will easily prove the identity of the mare. I am going to town on Saturday.

“Your’s very truly,

“C. GREVILLE.

“I understand the mare was purchased by Osbaldeston the end of July or beginning of August, and delivered at Manchester; what became of her after no-body here knows.”

“Suby Hall, Welford, Nov. 8.

“DEAR MILTOWN—I received a letter from Greville this morning requesting me to send you an account of the sale of Becassine. I bought her of Sir Mark Wood, during the last July meeting, and after she had been some little time in my possession, Osbaldeston wrote to me in London, asking me whether I would sell her, and what I would take for her. I replied 250*l.*, which he agreed to give, and appointed a day and hour to pay me for her. When he gave me his cheque for the money, he told me “the mare was for a friend, and requested me to write to Cooper, at Newmarket, to desire him to get a man to take Becassine to the Railway Hotel at Manchester, where a person would meet him, pay him his expenses in coming from Newmarket, and take the mare from him.” I dare say Cooper has this very little letter by him. The fact is, as soon as I had got my price for the mare I paid no attention to what was said, and whether Osbaldeston told me the name of the person for whom he had bought the mare or not I cannot remember; my impression is that he did, but as I could not swear to it, it is, perhaps, better to say nothing. I also think the name of the man to whom she was to be delivered at Manchester was mentioned, but Cooper, or the man who took her, could tell you this. I fancy it was Jones, but, as I have before stated, it was a matter of no consequence to me, and I paid no attention to it further than writing what Osbaldeston told me, to Cooper.

“Your’s very truly,

“GEORGE PAYNE.

“I ought to have added that the mare was sent to Manchester, and there met by some one, and delivered to him.”

Earl Miltown read the following extract of a letter from Mr. Tattersall, of London, without any communication with him—as also one enclosing an extract from a letter of a Mr. Lucas, of Liverpool—

Extract of a letter from Mr. Tattersall, dated London, 30th November:—

“Being anxious to assist your Lordship, if in my power, to detect the rascally business, if true, about Becassine, I see by yesterday’s Bell’s Life Mr. Osbaldeston says, “that after the mare’s arrival at the town of Manchester, he had a very advantageous offer for her from a dealer who was then shipping other horses for America, and that he closed with him, and that she was on board, and on the point of sailing, &c.” Now, my Lord, there never was an American horse dealer in England; nor, from what I can learn from the American gentlemen who have been over (all of whom I know), that there is such a thing in America, at least one who ever deals in English horses. Mr. Weatherby buys for one or two—I buy for all the others, and insure every horse and mare by its name. If, therefore, either of the gentlemen, four or five of whom were buying at the same time, I should have insured her, as all the insurances are done in London: they will not do one at Liverpool. I will write to Mr. Lucas, the Repository, at Liverpool, to whom all the horses go before they are shipped, to inquire if she ever came to his place, and also to enquire if such a mare was ever shipped from Liverpool. There is a very gentlemanly man at Liverpool, the American Consul, F. B. Ogden, Esq., who if your Lordship makes use of my name, will give you every information; he can, perhaps, tell you more than Lucas, as all Americans go to him.

Extract of a letter from Robert Lucas, of Liverpool, dated Dec. 4, addressed to Mr. Tattersall:

“I am in receipt of yours of the 1st, and have since been making all the inquiries in my power on the subject. I have also showed your letter to Mr. Ogden and Mr. Corben. We are all perfectly satisfied no American horse-dealer has been over from America this year buying horses; indeed it is a question whether there ever was one calling himself a dealer, over from America for the purpose. Secondly, we are almost positive no thorough-bred horses have been shipped the last six months, but what some of us are aware of.”

Several witnesses were then examined when the case being closed, Mr. Hunter, the Secretary to the Club, read the decision of the Stewards, which was as follows:—

“Having most carefully examined the evidence produced before us, we are of opinion, that in reference to ‘Leinster’ and Old Bill, as also to ‘Caroline’ and Becassine, a case of identity has been proved, and we consider Mr. Ruthven’s refusal to produce those horses for examination here as conclusive of the facts of substitution alleged against him.

“We are, therefore, of opinion that neither Caroline nor Leinster are entitled to any stakes in the races for which they may have come in first; that the second horses in those races should be deemed the winners; that the bets should go accordingly, except in the match between Caroline and Fusileer, in which the bets are off.”

“In conclusion, we feel imperatively called upon to remark, that in consequence of Mr. Ruthven’s withdrawal of his name from the Turf Club, it does not become a part of our painful duty to recommend to the Club any further proceedings in this matter.

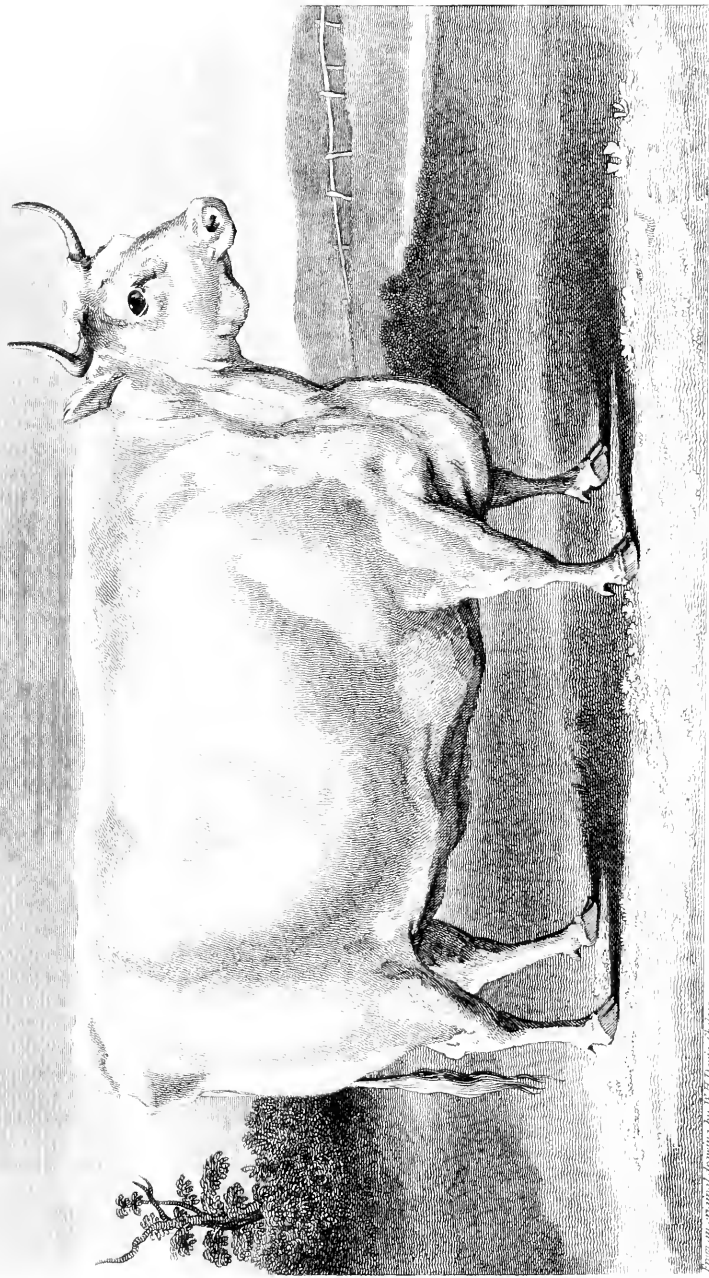
(Signed) “JOHN C. WESTENRA,  
JOHN MAHER,  
HOWTH.

“Stewards of the Turf Club.”

“Kildare, Nov. 29, 1835.”







Art. H. 1836

From an original drawing by W. H. Davis, Chelsea

A FINE MARTIN HEIFER,  
THE PROPERTY OF THE MARCHES OF EXETER,  
Exhibited at the Smithfield Show 1835  
London, Published by Agnewson, March 1<sup>st</sup> 1836

# THE FARMER'S MAGAZINE.

MARCH, 1836.

No. 3.]

[Vol. IV.

## THE PLATE.

The Heifer which forms the subject of Plate was a Free-Martin of the Durham breed, bred by the Marquis of EXETER. She was exhibited at the late Smithfield Show as Extra Stock,—obtained a Silver Medal, and was universally admired for her almost perfect symmetry. She attracted more than usual attention in consequence of a Match for £10 having been made between the Noble Marquis and Earl SPENCER, who also had a Free-Martin Heifer of the same breed, bred by himself, the comparative merits of which were to be decided by the Judges at the Smithfield Show. Both the animals were white, and when examined apart from each other, seemed so nearly equal, that it appeared difficult to decide which would be the winner. The Marquis's Heifer was Three Years and Three Months old, and Earl Spencer's Three Years and Six Months. Six stone were allowed by his Lordship to the Marquis on account of the difference of age. Although Earl Spencer's Heifer possessed vast merit, nevertheless upon close investigation and examining them side by side, the superiority of the Marquis's animal was very manifest, and she accordingly won the Match. The well-known character of both their Lordships as eminent breeders, added to the similarity in the appearance of the animals, gave to this Match an unusual degree of interest. The dead weights were given in the Farmer's Magazine for January last, but there was an error in the account of Earl Spencer's. It should have been 140 st. 2 lb., instead of 130 st. 2 lb.

## ORIGINAL LETTERS.

No. XIV.

### THE NECESSITY OF POOR LAWS FOR IRELAND FOUNDED ON THE REPORT OF THE IRISH POOR LAW COMMISSIONERS.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

"When we go to beg at a gentleman's house, it is always the wife that asks relief, and the answer is frequently 'go from the door, woman! What do you want here? Why do you annoy us in this manner?' The farmers are kinder by far, it is the humblesort that live on the road-side that are really good to us; but half the gentry, God help them! have no Christianity in them at all."—Taken from the Evidence received by the Irish Poor Law Commissioners.

SIR,—In a former letter I endeavoured to show the direct interest which the English owners and occupiers of land had to obtain Poor Laws for Ireland, and I now purpose to make a few observations on that subject, which have occurred to me from reading several extracts from the report of the Irish Poor Law Commissioners.

To talk of the *poverty* or *distress*—being relative terms—of the Irish peasantry would only be an insult to their sufferings; there is only one term applicable to their state, and that is destitution—destitution the most awful and destructive that can be imagined.

Tell me not of the tyranny of the Emperor of Russia or the poverty of the Siberian Serf as illustrative of abused power and human deprivation; these are indeed instances of mercy and of plenty when compared with the oppression exercised by the Irish landowners and the wretchedness of the Irish poor.

I have, I confess, up to the present time always entertained—to a considerable extent—the ob-

jection so often advanced in opposition to Poor Laws for Ireland—that is to say, the abuses which have crept into the English Poor Laws since the institution of those laws in the reign of Elizabeth and the consequent destruction of the spirit of independence and industry brought about by these perversions, and thus rendering necessary a complete *reversion*—I ought, perhaps, to say *revolution*—of recent principles in relief of the poor—at the risk of more danger and discontent—than would be likely to arise from the real distress of the pauper inhabitants of any county where a legal provision for the poor had never gained a footing. This objection and vein of argument has heretofore been the Goliath of the Irish landlords, but I do hope and trust,—and which is far better I believe, too,—that the report of the Irish Poor Law Commissioners will be as fatal,—not only to the above argument against Poor Laws for Ireland,—but as fatal to all other arguments that can be adduced by the ingenuity of interested men—as the stone and sling of Israel's Bard were fatal to the giant who defied the favoured people of our Maker. In England, we read constantly of the horrid crimes committed in Ireland, and wonder at the depravity of human nature—and thus we are imperceptibly led to the impression that it is the very *nature* of an Irishman to be cruel and vindictive—in fact, we think that he can commit deeds as a sort of pastime to himself, at which our *feelings* happily revolt. We feel, that although the catalogue of crime committed in England now and then affords an instance of diabolical wickedness, still it is quite obvious to our minds that these few instances sink into a shadow when compared to the "bloody men and guilty deeds" of Ireland—and thus we erroneously conclude that they are beings of a different caste from ourselves. But here we overlook the real truth. We all know that the sleek and well-fed mastiff—the favourite

of a rich master and the delight of the cook—generous of her employer's viands—would be much less disposed to commit *larceny* at a butcher's shop than the gaunt and half-starved cur, (whose allegiance to a poverty-stricken razor-grinder is accepted only on the terms that he boards himself) would be disposed to commit *felony* by killing a sheep—and yet we forget or neglect to acquaint ourselves of the ten-fold provocation to crime the Irish poor at this moment endure. Oh no! it is not their nature to be worse than ourselves—by nature they are open-hearted and generous, but by oppression and cruelty they are rendered—*what they are*.

It is true I had some notion of the misery of these poor people from various narratives I have at different times obtained from them when I have by chance employed some of them during the harvest, or when I have happened to meet with them on the roads. But, in order to show that I had formed no idea of the *real extent* of their wretchedness arising from oppression and want, I will here give as nearly as I can, in their own words, a statement I had from two Irish families who harvested for me in 1831; and then I will compare this history of themselves, with the history of some others contained in the report of the Irish Poor Law Commissioners, and also in the Clonagath meeting, and which will leave no doubt in the mind of any reasonable person, but that the families I shall first speak of, although their mode of gaining a subsistence was wandering and precarious, still they were, compared with those spoken of in the documents to which I have before alluded, well off. These families—I mean those who harvested for me in 1831—consisted collectively of two men, two women, and about five or six children; the men and women were all strong and healthy, because—as *they said*—they live well. They were natives of the county of Clare, where they each had a cabin and potato-garden of nearly an acre in extent, and the rent they each paid was 5*l.* per annum. These gardens my informants told me they managed to plant during the March month and the first fortnight in April. This grand object of planting being accomplished their attention was immediately turned to crossing over to England, leaving the care of their gardens and cabins to some old relative or friend, and this trust they told me was always faithfully fulfilled. When they arrived in England they immediately set about begging their way to the market-gardens round London, which gardens afforded them employ until the forward haying season commenced in that part of the world; and when this means of employment ceased round London, they usually got off to the adjoining counties, where they generally found the haying lasted till the commencement of harvest, when, of course, they could obtain plenty of work at high wages. Immediately the harvest was concluded they set off to a hop-growing county, where they joined the hop-pickers, and next, as a finish to their round, travelled back to the London market-gardens to help to get up potatoes, where they remained as long as employment was to be found, and when no work was to be had, begged their way again to some port for the purpose of getting back to Ireland to pay their rent from their former savings, to subsist on their potatoes during the winter, and to live in hopes of again crossing the Channel in the spring. Well, surely one would think this was all hard enough and quite sufficient difficulties and hardships for human nature to bear up against. I know I thought so, and I

wondered at the quiet contentment of these poor souls when they assured me they were *quite entirely well to do*, and wished I could see the situation of some of their poorer countrymen. I confess I doubted that such existed, but I am sorry to say that those doubts no longer remain in my mind, and the assertion, of my Irish labourers, that if I could see the state of some of their afflicted neighbours *I should think them bad off quite entirely*, is confirmed by the following authenticated facts:—At the Clonagath Meeting, the Rev. Mr. Phelan, in speaking of the horrors occasioned by “driving estates,” proceeded as follows:—“On one of these instances, where the old occupiers were dispossessed, an adjoining farmer allowed one of the ejected families to construct a temporary hut on his ground until Providence should enable the afflicted family to procure some other residence. Soon after the agent of the landlord, both of the farmer and the ejected poor man was passing by, and, seeing the hut, and learning the use it was made for, he rebuked the farmer very sharply, and asked how he dare allow such a thing to be done. The farmer, with more humanity than prudence, replied ‘Where will the poor people go? sure they must go somewhere.’ ‘Sir,’ said the agent, ‘you should not allow the land to be disfigured.’ ‘Then,’ said the farmer, ‘how can they live, or where will they go?’ The agent replied, ‘what the devil do I care! *can't they eat each other?*’”

Mr. Phelan proceeds—“Allow me to request your particular attention and the attention of the gentlemen of the press, some of whom I see present, while I state facts over which humanity must shed a tear—facts that prove stronger than any language—the absolute, urgent, and immediate necessity of Poor Laws—facts that have united men in calling for a poor-rate whom no other argument would convince as to the expediency of that measure—facts, I repeat, which appeal to the heart of every humane man in England and Ireland for sympathy and redress. In this one parish in which I now speak there have been ejected within the last few years by three or four landlords 178 families, amounting to 992 individuals, including 224 widows and orphans. If I am asked what has become of those people that have been ejected, I answer that a considerable number, particularly of the aged and infirm, lived but for a very short time—the shock they received when driven from the spot that gave them birth—the destitution into which they were plunged soon terminated their sufferings; others, after enduring every species of wretchedness and privation, sank at length beneath the weight of their afflictions into a premature grave; others again sought a refuge in the adjoining villages, where they soon increased the burden of the humane and charitable; many took shelter among their friends and relations in the neighbourhood. I am aware of many instances in this parish where there are families lying and rising in one miserable apartment only of a few square feet. My professional duties enable me to say that the mortality which prevailed among the unfortunate people, and the privations they had to endure were truly deplorable—”

I take the following from evidence received by the Irish Poor Law Commissioners: Widow Kilbohy, in the county of Mayo, says—“My husband, who was a labourer, has been dead for ten years; he left four young children without any means of support but my industry. He once dealt in buying oats to sell again when he had dressed them into meal. This gave me some skill

in the business, which has been of use to me since, persons engaged in that business employing me to tend oats in the process of kiln-drying. I am obliged for this purpose to watch it without intermission for twenty-four hours; remaining up during the whole night, and am paid from 7d to 1d for each kiln-cast, according as the business may be pressing or slack. The most I could attend to is four kiln-casts in the week, and on the average of the whole year I may be employed nine months. When I get constant employment I sleep as opportunity offers between the taking off of one cast and the putting on of another. I have been three weeks without lying on a bed, not sleeping but as I took a start of sleep in the kiln at such times as I have mentioned: and this at the wages as I have stated, at most 2s 6d per week. Since my children have grown up (the eldest is now fourteen) they have given me some relief by helping me, but we receive no additional payment. I never lay in a stock of potatoes, but buy from week to week as I earn the price of them. In summer potatoes are dearer than any other season of the year, and I have then less employment. Of course I am more distressed than at any other time of the year; still neither I or any of my family have ever begged, though I am sure most of the beggars live better than we do. However little I earn we endeavour to live on it. Sometimes when I was earning nothing persons who are in the habit of employing me have lent me money to be repaid in work when they would have employment for me. At such times we have lived on much less food than usual. *We have often lived on one meal of dry potatoes in the day.* I and my four children have often lived on eight stone of potatoes for a whole week—about sixteen stone would be sufficient for us.—(Mr. Loftus says they have been accustomed to live on so much, and be content with it, but if they could afford it they would consume twenty-four stone.)—We very seldom at any time of the year have milk with our potatoes; we sometimes have a salt herring, but we eat them three times dry for once that we have any thing with them; and it is not the best even of potatoes that we have—*we buy the cheapest and worst sort of lumpers that we may have them plentiful.* *I am not able to clothe my children, and I have never been able to send them to school.* A family had been attacked by fever; the commissioner found the father and four out of five children sick, and altogether on one bed of *moist rotten straw*, and their only covering a single fold of what is called a poverty-blanket. Their only attendant was the fifth child, a girl of eleven years old. No person would come into the house. Their neighbours used to leave some potatoes within a few yards of the door: *this was their only support—medical attendance was quite out of the question.* Another instance follows—Molowney says that in the mountains of this parish when the potatoes fail *they bleed the cattle and eat the blood.* Patrick Byrne says—“My first take was 23s per acre, and when my lease was out my landlord raised the rent to 45s 6d. As I was loathe to leave the place I was born and reared in, I strove to keep the roof over my poor mother's head; however, with all our industry and hard work, what was not in the land could not be taken out of it; we could not pay the rent, so of course we were put out. The old woman went to the landlord and told him he got all the produce that came off the land; and he knew very well he got the very corn after it was cut, drawn away by his own carts and horses; that the cows we reared went

to pay the rent; all would not do! and the only answer she got was that the ground was his, and the money hers, and as she could not pay the rent he fixed on it, she could go somewhere else. She is now seventy years of age, and it is hard to see her depending on me when I can rarely get employed!”

Now does not humanity shudder at such statements as the above? and do they not carry conviction to the mind of every reflecting person of the necessity for a legal protection (or, in other words, a legal provision, of a sufficient portion of the necessaries of life) for these poor oppressed and suffering wretches? John Locke, in his treatise of Civil Government, truly observes, “that he who makes an attempt to enslave me thereby puts himself into a state of war with me:” and again he says,—“whenever violence is used, and injury done, though by hands appointed to administer justice, it is still violence and injury however coloured with the name, pretences, or form of law, the end whereof being to protect and redress the innocent by an unbiassed application of it to all who are under it; wherever that is not *bona fide* done *war is made upon the sufferers*, who having no appeal on earth to right them, they are left to the only remedy in such cases—an appeal to Heaven.”

These just sentiments of Locke's strictly apply to the present situation of the Irish Aristocracy in respect to the present state of thousands of the Irish paupers. Is not violence and injury done to these poor creatures by hands appointed to administer justice? and thus is war declared by the rich against their destitute brethren: for if it be not violence to drive human beings in a complete state of destitution from house and home to starve in a ditch—I say if *this be not violence*, I readily confess I am ignorant of the meaning of the term. The agent tells the farmer the estate must not be disfigured. What are the poor creatures to do? asks the humane farmer; and for this one question the good man secured to himself our blessed Saviour's promise to the giver of a cup cold water. What remedy does the Bellial heart the agent suggest? Why, for the poor souls to eat each other. *Truly this is giving hungry people but a dangerous propensity!* Cannibals, I have no doubt, like other carnivorous feeders, prefer the *fat and well-fed* to the *half-starved and lean*, and consequently, by adopting the advice of the steward—when these wretched mortals had become epicures at man-eating—although, perhaps, they might be satisfied with a dinner from off one of their own associates during the week-days, still they would at least have a desire either for a Lord or a Duke as a Sunday's repast, and in the end perhaps their appetites would even aspire to the Lord-Lieutenant himself as a Christmas meal. Mr. O'Connell—I am glad that name is written, for I had a hard task to give him so respectful a cognomen—has promised to bring forth a measure of Poor Laws for Ireland during the present session. I sincerely hope he will redeem this promise; but, if he should be found wanting, surely the government cannot allow the session to pass over without securing some remedy for the present monstrous evil; for if the report of the Irish Poor Law Commissioners be read by one-twentieth part of the community, no government, I am convinced, would be able to resist the strong feeling that would thus be created in favour of the measure.

Above all, I trust the report will be read by our kind-hearted Sovereign, for he has expressed himself interested for the condition of the labouring

classes of Sussex, and has liberally subscribed to several societies in this county established for rewarding meritorious labourers, and consequently it is only reasonable to conclude that his Majesty's sympathy would graciously extend—in such an increased degree as the nature of the circumstances require—to his starving and degraded Irish subjects. To such of your readers as have not seen more of the report of the Irish Poor Law Commissioners than the above passages which I have copied off—and the report abounds in like instances of distress—it will be some matter of surprise to learn that on the whole the commissioners seem *opposed* to the introduction of Poor Laws into Ireland. They talk of the moral degradation which might follow in the train of measures benevolently intended, but ill-judged, when applied to a nation possessing the habits and being in the peculiar situation of the people of Ireland. They also speak “of further investigating the causes of destitution which have come under their notice. What occasion there can be for this investigation I am at a loss to imagine, for they (the Commissioners) have themselves in their own document fully shown the causes of destitution, viz., *the low wages of labour and the exorbitant rent of land; and there are the natural effects of the political anomaly of having a legal provision for the poor in one part of the United Kingdom only.*—I am Sir, your obedient and very humble servant,  
AGRICULTUR.

Sussex, Feb. 3, 1836.

No. XV.

#### TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—An opinion prevails very generally amongst all classes that little more is necessary for the cure of agricultural distress, than a reduction of rents; and it has been maintained in public and in private, that as the landowners are a small body of men, their interests ought not to stand in competition with those of the great majority of the people; in other words that it is expedient and reasonable, to sacrifice them for the public good. On this last point I shall only observe, at present, that any argument tending to prove this, must apply equally to the fundholder.

I will now attempt to shew, that a reduction of rents. (however necessary and unavoidable,) cannot restore prosperity to agriculture, nor, (with present prices, prevent large tracts of land from going out of cultivation with the ruin of tens of thousands of landlords and farmers, and hundreds of thousands of labourers, and others dependent on such lands. If high rents were the only grievance, the universal adoption of corn-rents would remove it entirely; but the evil is much more deeply seated and inveterate, for nothing can enable the British cultivator to support the direct, and indirect taxation peculiar to England, with the prices of the continent. The ruin and removal of the present occupiers, with the transfer of the soil of England to the mortgagees, will not alter the case at all, so long as the public debt and taxes, and the prices remain as at present. The reasoning of Mr. Huskisson still applies to the state of this country, (debate on the Corn-Laws, May 24, 1814.) “The noble lord, (Lord A. Hamilton,) deceived himself if he imagined that we could return to the state in which we were before we entered on the contest. This was one of the most dangerous

errors that could be entertained. The whole expenditure of the country at that time, only amounted to 16 millions. He (Mr. H.) was confident that our peace establishment must entail on us a permanent charge of nearer sixty, than fifty millions. And would this produce no alteration in the money value of articles? When gentlemen talked of the increased price of bread, did they forget that every thing else had risen in proportion, and that, not in consequence of the *high price of bread, but the amount of taxation*. It had been said that the obvious remedy was for the landlords to lower their rents. If even the whole rental of the country were remitted, it would be impossible for the country to return to the prices before the war.” (Speeches of the Right Hon. W. Huskisson, pages 299 and 300.) I assert without fear of refutation, that our agriculture cannot go on *with continental prices, and the present amount of public debt and taxes*; and were the whole rental of the kingdom remitted, it would not affect the general question, nor lower the price of bread to the consumer. It would have no other effect, as Mr. Malthus has observed, than to enable those farmers whose lands now pay a rent to live like gentlemen, and *they would have to expend that portion of the general revenue which now falls to the share of the landlord.*” (Ricardo,—essay on the Profits of Stock, page 20) “Is it credible that if the price of corn were to gradually fall to 45s or 50s a quarter, it would answer to us to go on improving our agriculture with our increasing population, or even to maintain our produce in our actual state? It is a great mistake to suppose that the effects of a fall in the price of corn on cultivation, may be fully compensated by a *diminution of rents*. Rich land which yields a large neat rent, may, indeed, be kept in its actual state, notwithstanding a fall in the price of its produce; as a diminution may be made to compensate for its fall, and all the additional expenses that belong to such a rich and highly taxed country. But in poor land the *fund of rent* will often be found quite insufficient for this purpose. There is a good deal of land in this country of such a quality that the expenses of its cultivation, together with the outgoings of poor rates, tithes, and taxes, will not allow the farmer to pay more than a fifth or sixth of the value of the whole produce in the shape of rent. If we were to suppose prices of grain to fall from 75s to 50s a quarter, (or at this time from 60s to 40s) the whole of such rent would be absorbed, even if the price of the whole produce of the farm did not fall in proportion to the price of grain, and making some allowance for a fall in the price of labour. The regular cultivation of such land for grain, would be given up, and any sort of pasture, however scanty, would be more beneficial both to the landlord and farmer. Every diminution of price (of produce) not fully and immediately balanced, by a proportionate fall in all the necessary expenses of a farm, will tell in the computation; and if after all these outgoings are allowed for, the price of produce will not leave a fair remuneration for the capital employed, according to the general rate of profits, no sufficient motive can exist to continue the cultivation of such land.” (Malthus. Observations on the Corn Laws, and a Rise and Fall in the price of Corn on Agriculture, pages 18, 19, and 20.) I cannot think that a great fall in the price of corn can be “fully,” much less “immediately balanced by a proportionate fall in all the necessary expenses of a farm.” That there has been yet no proportionate fall in the

wages of the labourers is well known, and it is made a subject of rejoicing, by the advocates for low priced corn, and amongst them by Earl Fitzwilliam, who flatters himself and tries to persuade the landowners, that rent will fall but little under low prices of corn. But if the aggregate money amount of a farm's produce is to fall permanently, (one-third suppose,) and the landlord and labourer are to receive still the same, or nearly the same, amount in money, it is evident they will receive more than their share of the produce;—this may be to them a subject of rejoicing, but not to the unfortunate occupier, whose capital must be taken away by it; and I admire not that obliquity of moral feeling which can rejoice at the robbing of Peter to pay Paul. When I consider the effect of more prosperous times on the habits of the English labourers, and how many of the articles now necessary to them are little influenced by the fall of corn, either because they are affected by taxation, or consist wholly or in part, of foreign materials, I expect no adequate reduction of wages so long as employment is found. From Sir F. M. Eden's work on the Poor Laws I find that in a labourer's family of about an average size, the articles of house-rent, fuel, soap, candles, tea, sugar, and clothing, are generally equal to the articles of bread or meal; on a very rough estimate the whole may be divided into five parts; of which two consist of meal or bread, two of the articles above mentioned, and one of meat, milk, butter, cheese and potatoes. These divisions are of course subject to considerable variations, arising from the number of the family, and the amount of the earnings. But if they merely approximate towards the truth, a rise in the price of corn (and consequently a fall,) must be both slow and partial in its effects upon labour. Meal, milk, butter, cheese, and potatoes, are slowly affected by the price of corn; house-rent, bricks, stones, timber, fuel, soap, candles, and clothing, still more slowly; and as far as some of them depend in part, or in the whole, upon foreign materials, (or are objects of taxation) as is the case with leather, linen, cotton, soap, and candles, they may be considered as independent of it; like the two remaining articles of tea and sugar, which are by no means unimportant in their amount. It is manifest, therefore, that the whole of the wages of labour can never rise or fall in proportion to the variations in the price of grain; and that the effect produced by these variations must be very slow in its operation." (Malthus, as above, page 6.) "It is, undoubtedly true, that corn might be just as successfully cultivated, and as much capital might be laid out upon the land at the price of 20s. per quarter, as at the price of 100s., provided that every commodity, both at home and abroad, were precisely proportioned to the reduced scale. But to infer from these truths that any natural or artificial causes, which should raise or lower the value, of corn or silver, (or of gold, our present standard,) might be considered as matters of indifference, would be an error of serious magnitude. Practically, no material change can take place in the value of either without producing both lasting and temporary effects, which have a most powerful effect on the distribution of property." (Malthus, as above, page 13.) If, then, a fall in the price of corn can only operate slowly and disproportionately on the wages of the labourer, it must do so on those of the artisan, and on the articles supplied by him, many of which are probably raised by taxation. On general and local taxes,

"on taxes on farming stock," "on taxes on the necessaries of farmers," a fall in the price of corn will have but little influence; therefore, if corn continue low, it will very seriously affect the condition of the farmer, whose trade has always, (on a long average) been, comparatively, a very poor one. As I cannot agree with you, Mr. Editor, in thinking any reduction whatever, of rent or tithes, (however necessary) can alone effect a cure for agricultural distress, neither can I think with you, that abundant crops have caused such low prices, (except partially so of wheat) because the crops of barley, oats, beans, and peas, have been deficient for several years; yet even of these the prices are low, considered as the prices of scarcity. Besides most products of British industry (unless the objects of direct taxation) are equally low, and have been progressively falling in price, *pari passu* with corn, ever since the passing of Peel's bill, and more especially, since the completion of that measure by the final withdrawal of the one pound notes. The whole circulation of England has been reduced nearly one half, and that of the *rural districts*, *two thirds*; this seems sufficient to account for the fall of corn, and all commodities; but if any one doubt, let him compare the aggregate amount of Bank of England issues, and of country bank notes, with the prices of corn, making allowance for years of dearth, or of abundance; and also the variations in the prices of other commodities, allowing for remission of duties, or other accidental causes, from the year 1815 to the present time, and all doubt will cease.

To talk of restoring prosperity to agriculture by any reduction of rents and tithes *alone*, is to support delusion, and to deceive the people of England, and particularly the farmers, to their ruin. Let taxes, as well as rents and tithes, be brought down to the price of corn, or if the present amount of taxation is to be kept up, let it be paid in a currency of the same value as that in which the money was borrowed. There is no alternative but this or ruin for agriculture.

The present state of things ought not to excite surprise, since it was distinctly foretold by those "currency doctors," Mr. Cobbett, Sir John Sinclair, Mr. Attwood, Lord Western, Sir James Graham, and others.

I am, Sir,

Your obedient servant,  
Sussex, February, 1836. TERRÆ FILIUS.

No. XVI.

#### TO THE EDITOR OF "THE FARMER'S MAGAZINE."

SIR,—In your valuable publication, I often read letters, essays, and reported speeches, on that much engrossing subject Agricultural Distress, and on the best mode of relieving the cultivators of the soil from their supposed embarrassments.

These articles are frequently couched in very strong language, abusive to the land-owners, and threatening serious consequences to them if they do not so permanently reduce their rents as to restore prosperity to their tenants.

I do not know what good purpose such violent language can answer, for the writers can know very little of human nature, if they suppose that so large a class of persons as the owners of lands are, (both great and small) can be brought to act on any other than the universal principle by which all others are governed, that of making as great advantages of their property as they can; indeed

their arguments can apply to such only as hold land under lease, the tenant at will can quit his farm at a short notice, if he finds it a losing concern, at least as easily as the manufacturer can give up his manufactory, or the merchant his shops.

I am old enough to remember that some 40 or 50 years ago many held their farms on long leases at very low rents, and when afterwards agricultural produce advanced to very high prices, I never heard an instance of a tenant's going to his landlord and saying, "I occupy your land on terms very inadequate to the value of its produce; I know that you cannot now live on your income, and are involving yourself and family in debt, whilst I am filling my pockets, therefore I will make an addition of ten per cent. to the rent." If such was the case in any instance I shall be much obliged to either of your Correspondents if he will point it out; but if such a circumstance never occurred, with what face can tenants, now that things have taken a different turn, ask for abatements. If they insisted on the pounds of flesh when they had it in their powers, have they not set examples to their landlords, which they cannot blame them for following.

Is it quite so clear that farmers are suffering to the extent complained of? We hear of very few bankruptcies or insolvencies amongst them, certainly not more than occur with persons in any other lines of business. The only depressed article of their produce is wheat, and I shall endeavour to shew why that is so low in price.

I have read much on the low prices that wheat has borne for the last few years, where various causes have been assigned for the depression, but I think the true one has not been hit upon, namely the increased and increasing cultivation and use of potatoes.

This root now forms by much the greater part of the food of the poor, is in common use at the dinner tables of the middling classes in lieu of bread, and is also introduced (fried) at the breakfast tables of the rich.

I live in a manufacturing town where a great number of young women are employed; they tell me that few of them allow themselves more than one sixpenny loaf of bread a week, and even that is probably composed in part of potatoes; the whole of their other food, with the exception of tea and an ounce or two of butter, is potatoes.

The large farmers, whose complaints are loudest, although they in general rent their farms cheaper than the small ones, seldom cultivate the root to any extent themselves, (the attention required would interfere too much with their sporting propensities, and enjoyments at markets and fairs), but let their potatoe grounds in small parcels at high rents to inferior persons, who manage them chiefly at their leisure times, the farmers manuring the land, doing the plough labour, and hauling the produce home to the cultivator, or to the persons to whom he disposes it.

This person retains sufficient for the use of his family, and sells the remainder, except the refuse with which, with the aid of a small quantity of barley, he keeps and fattens one or more pigs, according to his means.

I believe it is ascertained that the quantity of wheat grown does not by any means keep pace with the increased population, and yet more is grown than is wanted, which I think I have clearly accounted for. No doubt, the increased quantity imported from Ireland has its effect, but I believe

the chief cause is the growing use of the potatoe as a substitute, and whilst that continues there is but one way of advancing the price of wheat, namely, by reducing the quantity produced to a level with the demand, and employing the lands for other purposes.

The poor man says that 240lbs of potatoes does as much good in his family as 60lbs of wheat; now if we take the average produce of an acre of wheat at 11 cwt, and an acre of potatoes at 130 cwt, which I believe is a statement in favour of the wheat crop, it will appear that one acre of potatoes produces about as much food as three acres of wheat; or in other words that the productive land in the country to the extent of the potatoe cultivation, is equal to a threefold increase.

Under these circumstances what can Parliament do? Can they force the people to relinquish the use of potatoes and fall back on that of wheat? Or is it not sufficiently obvious that the farmers alone can remedy the evil (if an evil it be) by applying their lands to other purposes.

Should these remarks merit your notice, I may perhaps pursue the subject in another epistle.

AUDI ALTERAM PARTEM.

No. XVII.

#### TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—As a constant reader of your valuable publication, I forward a few remarks in answer to "A Subscriber," who through your pages solicits information, on the good arising from agricultural shows of stock, ploughing matches, &c. Having witnessed the establishment and proceedings of one of the first societies in England, induces me to give an opinion on the good arising from such societies, which have in their object the encouragement of good breeding, cultivated by the different modes adopted by different societies; some by offering premiums for breeding stock, others to the produce, regulated by certain restrictions in the different classes, according to the wish of the society; by age and manner of keeping, &c., &c.; which is productive of great good, by bringing together the specimens of the different herds and flocks which are kept in the neighbourhood, where such societies are established, at once pointing out the sort of animal or animals that possess those qualities most worthy of encouragement; then by the award of premiums, you produce a spirit in the breeders of the neighbourhood, who not only compete at the annual meeting, (as a school for the young farmer,) but at the fairs and markets around, will be found that improvement in the breeding and feeding of such animals, that it will at once establish the neighbourhood as famous for good cattle, both in store and fat order. The competition in the different classes of such societies affords much information, even to the more enlightened, by bringing together the breeds of many counties as specimens of their choice, showing the different propensities each breed of animals possess over those of their neighbours, leaving the selection of breed to those who wish to establish themselves as breeders, or supporters of the good that may arise from the attention of the farmer to this great point, but more particularly in the breed of sheep, as they are capable of great improvement in every district, and will repay the breeder instantly. I have seen the astonishing effect of good breeding over that of the careless;—for in-



stance, the one-year old sheep fed upon vegetable food only, have surpassed those of an ill form that have been fed till two years old, and without restriction.

I am of opinion that if the carrot, turnip, and mangel wurzel, be properly cultivated, they will surpass any artificial food that may be introduced, as a system, knowing that cake or corn never gave solidity or good form to an ill-bred animal. Premiums also for the different vegetables grown in the district, would lead to an improvement in their respective qualities, in the advancement of which the ploughman would take an active part, therefore none need more encouragement or example. In this neighbourhood they are amply rewarded, by the exertions of R. W. Baker, Esq., who has been most sanguine in the formation of a ploughing match, held annually at his residence at Cottesmore, since which great spirit has been produced in the hearts of the ploughmen, who are seen daily striving to advance their skill for the next annual meeting, which must undoubtedly profit the farmer. As a proof the rapid improvement made since the commencement, would convince the most prejudiced, and at once agree that the men of Rutland are now equal, if not superior to those of any other county in England.—I fear I have taken too great a liberty with your pages, but being a warm supporter of your valuable publication, must plead the excuse of your friend

Feb. 15, 1836.

RUTLAND.

#### TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—Since my last you have pretty well answered the attack made upon you by the dictators of the *Agriculturist*. Their descending to something very like abuse, and imputations of unworthy motives to you and those connected with the *Mark Lane Express*, upon, I believe, no grounds whatever, but because you as an honest journalist took a common sense and just view of the change in the currency scheme, advanced as a panacea for all the evils that are supposed to afflict the agricultural part of the community, and finding it false, denounced it accordingly, is unworthy of men advancing themselves forward as the advocates of an interest in the kingdom—so, I may almost say, solemn, and so intimately connected with the other great interests, all of which are of equal importance, and unquestionably deserve equal protection, and the most dispassionate consideration for their interests in the investigation of causes, and the adoption of measures for the relief of any other individual branch so supposed to be suffering from inadequate protective laws or regulations. One would have thought that they would have guarded their cause by a more dignified and conciliatory attitude in their assumed advocacy, than that which they have bodied forth in the columns of the "Live and let Live" journal. I may not be a judge in such matters, but their principles, though they may deem them orthodox, seem to me either no principle at all, or, to say the least of them, of a very suspicious character. They taunt you with Whig principles. What a dishonour! To my simple mind it appears tantamount to taunting you with honesty. However, (though I know I need not trouble myself,) heed them not, the snug, well-found ship, *The Mark Lane Express*, if conducted, as I have but little doubt it will, with that ability it has latterly displayed, will long ride under easy canvass among her contemporary barks, long after such crazy suddenly got-up ventures as the *Agriculturist*, are

silently sleeping at the bottom of the literary ocean, and their performances no more remembered.

A Whig Ministry have given the agriculturists a committee upon agricultural distress, but the currency-changing gentry are left alone in their glory. Something like unfortunate beings suspected to be tainted with some contagious malady, there they stand, looked upon by friends and foes alike, as objects only of pity, and dangerous to come into contact with. There will, I have no doubt, be a fair and full inquiry made, and I trust that such parties as those you have very judiciously pointed out in your leader of last Monday, will be called before the committee. I am glad that a committee has been granted, because of the outcry that has been made, and instigated by the rack and war-rent-supporting needy embarrassed landlords, though I think quite unnecessarily, and at a useless expense to the country, because partial distress (and only partial it is, and local, and so it will be found without pretending to the gift of foreknowledge,) is well known and acknowledged, and its extent and locality; and therefore, what remained for the legislature to do, or to be called upon to do, was to consider what might be proper to be done for the removal of that distress as far as possible, without prejudice to any other of the great interests of the state. Had the agriculturists only called upon the ministers and parliament to do this, I shrewdly think they would have gained quite as much, and not unlikely more, and that more speedily than by the course pursued. The inquiry may (and will I trust) be a searching one, and the perusal of the report by the country at large may have a different effect to that anticipated by those who expect to derive great benefit from it.

I know your space for original matter is now more limited on account of the important matters discussed in parliament, I shall therefore make only two or three more remarks. Whatever legislative enactments may be made, supply and demand will govern prices; and the rent of the land must be according to the marketable value of that which it produces. It ought not to be tolerated in this country that the price of corn shall be made to rise, but by the natural demand arising from the industry and healthy prosperity of all classes of the community. Equal justice certainly the farmer ought to have, and that I think he cannot say but he has, when it is called to mind the many taxes from which he has been relieved since the peace, and the enjoyment of so heavy a protective duty upon foreign corn by the present corn laws.

Another circumstance occurs to me at this moment, which may account to a very considerable extent for the great productiveness of our harvests of late years. It appears to me that really very bad harvests cannot now occur so frequently as formerly under our improved husbandry. All kinds of grain are now sown generally three weeks or a month earlier in their respective seasons, and therefore are fit for cutting three weeks or a month earlier, thereby having the advantage of being stacked or housed in the best part of the summer. The extensive drainage too over the whole kingdom, and which is progressing more and more every year, (underdraining being now found to be the ground-work for all improvements, particularly upon arable land,) has tended, and is tending greatly to ameliorate our climate; so that we cannot now, it appears to me, be visited anything like so frequently with bad harvests, and when such do take place they cannot be by many degrees so fatal to the hopes of the farmer.

Many other things rise in my mind, which support me in the conviction that supply alone keeps down

price, and that no tampering with the currency can permanently raise it without raising the price of all other products of the industry of our country in the same proportion; and then, where would be the real benefit to any body, who ought in justice to be benefitted by any legislative enactment?

REFLECTOR.

Strand, Feb. 12, 1836.

## ON THE DEGENERACY OF THE POTATO.

BY MR. WILLIAM PATON, GREENABY, FRED. ISLE OF MAN.

(From the Quarterly Journal of Agriculture.)

Nothing need be said on the value of the potato, and consequently, on the importance of investigating the causes which may either deteriorate its quality or lessen its productiveness.

For some time past there has been much complaint relative to its being infected with a disease called the *taint*, and inquiry has very judiciously been courted concerning the cause of it, and the means by which it may be prevented. Some of the correspondents of this journal have assigned reasons for its existence, which must be admitted to be plausible, and to a certain extent correct; but after making a variety of experiments, and gathering information from different potato growers I have been led to form conclusions respecting the causes of this disease, which do not yet appear to have received the attention which they seem to myself to merit. While most correspondents have noticed the injurious influence of external causes in producing the taint, they seem not to have directed their attention sufficiently to those which are inherent. I believe it will be found that where this disease has been most prevalent, it has affected most seriously those sorts of potatoes which, from their superior quality, have been cultivated for the greatest length of time, and that it has been most destructive among those sorts which are marked by peculiar delicacy. This clearly shows that there must be some cause of the disease in the potato itself, which may indeed be increased by external causes, but which, at the same time, must be regarded as independent of them. With these views, I consider that the means of preventing the taint must be applied both to the removal of whatever of an external nature may be found injurious to its health, and also to the counteraction of its internal causes of disease.

Among the external causes of the evil in question, may certainly be considered an unfavourable state of the atmosphere, though from my own observation, I am inclined to think that this rarely produces a deficient crop, if all other circumstances are favourable. *External drought*, from being adverse to the vegetation of the sets, may, and no doubt sometimes does, subject them to the taint. There is also reason to think that *external moisture*, when accompanied with colds, by chilling the sets, produces a similar result, but these are causes over which we have no control. From the use of *unfermented manure*, the same effect will, in all probability, sometimes follow, and in cases in which the land has not been sufficiently pulverised before being planted, the evil complained of has been found to prevail extensively, and probably through the sets not being sufficiently protected from the influence of the air when the weather has been too dry to be favourable to vegetation. As far,

however, as my own observations have extended, those injuries which the potato itself receives, are the most powerful external causes of the disease in question; and among those by far the most powerful, *their being cut when prepared for planting, and their being deprived of their first and strongest shoots*, which too often happens in consequence of their sprouting before they can be removed from the place in which they are preserved during winter; also in undergoing partial fermentation before and after being cut. These must be regarded as serious injuries, which, although they may not so materially affect the coarser and hardier sorts, I have found to be exceedingly destructive to the more delicate, and particularly those which, by reason of their superior quality, have long been cultivated. We now come to what I consider the very root of the evil, namely, *a predisposition in the potato itself to receive the disease in question*. This predisposition I conceive to result from its having degenerated in consequence of having been subjected to a long course of artificial cultivation; and, therefore, that our attention must be directed mainly to the means of preventing this degeneracy, while we endeavour to remove all such external causes of the disease as may be under our control. That the potato, in common with all other cultivated productions of the vegetable world, has a tendency to degenerate when the laws of nature are deviated from, must be granted; and, considering that it is not a native of this country, it is reasonable to expect that it will degenerate in proportion as means are neglected to prevent it from doing so.

This tendency to degenerate is well known to exist even in trees which are cultivated by grafting; and to such an extent, that many of the first sorts of apple-trees which were formerly cultivated with the greatest care have long since become entirely worthless.

With respect to the potato, nature seems clearly to have made provision for the permanent health as well as for the productiveness of her own offspring, in the seed contained in the berry which the plant produces from its stalks; and consequently, by our endeavouring to perpetuate any particular sort of potato by continually cutting and planting its tubers, it is reasonably to be expected that we shall injure its general properties and powers, and thus gradually render it less fit for food, and more liable to disease. As I have already observed, extensive observation has fully satisfied me that the taint by far more frequently attacks the long cultivated, and more delicate sorts of potatoes, than any others; the former I conceive, because their vegetative powers have become enfeebled and disordered by a long course of treatment opposed to nature; and the latter, because the very delicacy of their constitution renders them more liable than the hardier sorts to disease.

If the foregoing observations should be deemed correct, it will follow that, in order to be as certain of obtaining as good a crop of potatoes as it is possible to be, *the ground before being planted, should be thoroughly pulverized; the manure should be well fermented; the sets should be whole potatoes,\* and never deprived of their first shoots, nor allowed*

\* I would recommend for sets, under all circumstances, old potatoes somewhat under the middling size, or about as large as a walnut, which may either be separated by riddles, or selected by the hand at the time of digging.

to ferment; and lastly that a constant succession of new sorts should be raised from the berries of the old ones. The newly raised sorts would doubtless admit of being cut with safety for several years, and would be but little affected by other external injuries, unless peculiarly delicate, as they would possess all the health and vigour of a plant propagated according to nature's laws. By attending to these few suggestions, the experience of several years of extensive observations warrants me in saying, that a full crop of potatoes may, under all ordinary circumstances of the weather, at all times be secured. I would, however, particularly recommend the raising of a succession of new sorts from the seeds contained in the berry of the most approved old ones, as I firmly believe that the disease complained of is mainly to be attributed to this having been too generally neglected. In the year 1833, I raised from the berry a great variety of new sorts. In 1834, the best of them were selected, and planted separately. At the present time, although planted late and cut, they are displaying an extraordinary degree of health and vigour; while, in the same field, and almost by the side of them, some of the old sorts are not only feeble, but both tainted and curled; thus unanswerably proving the necessity of having recourse to the assistance of nature to counteract the evils arising from a long course of artificial, and in some respects injudicious, cultivation. On another occasion I will, in all probability, send the readers of this Journal an account of the future stages of this experiment.

### PARING AND BURNING.

The process of paring and burning consists in paring off, by means of a spade or plough, the sward or turf of the soil, and burning it, either in heaps or by setting fire to the turfs on edge, and then spreading the ashes upon the surface.

The process must be performed while the weather is sufficiently dry to allow of the combustion of the turf. It may be begun in the month of April, or, if the weather be dry, earlier, and may be continued throughout the summer as convenience or the state of the weather allows.

The instruments employed in this operation are either a species of spade, pushed along partly by the hands and partly by the pressure of the breast, and thence termed a breast-plough, or by a plough so formed as to cut and lay on its back a thin sward or turf.

The spade or breast-plough is a triangular-shaped spade, about 9 inches in length, and 10 or 12 in breadth. It is fixed to a strong handle, with a cross handle at top, upon which the workman presses with his breast, holding the cross handle at the same time. When he has pushed it forward and under the sod for about two feet or more, he suddenly turns it over, and reverses the sod. He then proceeds as before, pushing and turning over the sod as he advances. Workmen with similar spades follow each other, and thus the whole turf is turned over. The depth of the sod cut is generally from  $1\frac{1}{2}$  to 2 inches, or a little more. There is generally a raised edge on one side of the spade, which facilitates the operation.

This instrument performs the work satisfactorily, though it requires considerable manual labour. When the ground, however, is rocky or unequal, it is the best method of effecting the purpose.

But in those cases where the land is tolerably level or free from obstacles, as in the fenny districts of England, where paring and burning are practised to a great extent, it is common to substitute a species of plough, formed so as to pare off a thin sod, and reverse it.

The turf being cut an inch or more in thickness, is set up on edge to dry, and after it has remained in this state for a time sufficient to render it dry enough to burn, it is either set on fire as it stands on edge, or it is collected into heaps. The heaps are set on fire and left to burn, being so covered as that they shall burn with a smothered heat. By this slow combustion the whole heap is equally consumed. But there is often difficulty in getting these heaps to burn, in which case it is necessary to employ straw, furze, and other substances, to maintain the combustion.

When the heaps are burned, the ashes are spread abroad upon the surface, and as quickly as possible covered by a shallow ploughing.

Upon the land thus ploughed may be sown a crop of rape or turnips in the same season, to be eaten upon the ground with sheep. This is the best mode of treating land that has undergone the process of paring and burning. Further, the after-management of land so treated should be as gentle as possible; for having called the productive powers of the soil into powerful action, we must be careful not to avail ourselves of this to rob and exhaust it.

Much dispute has arisen on the advantages and evils of paring and burning.

While it is by some contended that it must exhaust the soil of its permanent sources of fertility, by dispelling the soluble matter which it contains, it is contended by others that any loss of soluble matter from this cause is more than compensated by the increased productiveness of the soil, and the consequent means afforded of adding to its fertility by the greater quantity of manures produced, and that, in truth, experience does not prove that the soil is exhausted of its permanent powers of fertility by this process.

But whatever advantages may result from the practice under certain circumstances, it is known that an injurious use is frequently made of the temporary fertility produced; and that, although in many cases it may be an advantageous method of stimulating the productive powers of the soil, there are many others in which this stimulus is too powerful.

The cases in which paring and burning have been found to be always hurtful, are those of a siliceous sand, with a thin covering of sward. A soil of this sort is frequently seen to be reduced to a *caput mortuum* by the operation. In this case, the scanty vegetable matter which such a soil contains being driven off by heat, or exhausted by a few crops of corn, nothing remains but the barren sand of which it was composed.

All thin soils, however, are not thus injured by paring and burning. Thin chalky soils, and indeed the thinnest calcareous soils of any kind, rarely suffer, except under great mismanagement, from paring and burning. The heat probably acts upon the limestone by dispelling the carbonic acid, and this calcareous matter, converted into quicklime, produces an immediate action upon vegetation. If such land is gently treated and laid down to grass, it will be covered again with a sward, the growth of which will quickly repair the loss of vegetable matter. Thin chalky downs in England have been subjected to a constant repeti-

tion of the process of paring and burning, without any apparent diminution of their fertility.

Again, in the deep peaty and fenny soils, the process of paring and burning may be carried on to a certain extent without injury. Here there is a great excess of vegetable matter, and the loss of a part of it at the surface is not attended with sensible injury. The loss is more than compensated by the increased produce; and if such lands are laid down to grass, without having been too much exhausted by cropping, the production of fresh sward will soon replace the waste of vegetable matter.

Cold clays too have been often much improved by paring and burning. Such soils do not generally contain much vegetable matter, and when that portion of it which is contained in the turf is expelled, a more than corresponding benefit is derived by improving the texture of the soil itself.

"The process of burning," says Sir Humphrey Davy, "renders the soil less compact, less tenacious and retentive of moisture; and, when properly applied, may convert a matter that was stiff, damp, and, in consequence, cold, into one powdery, dry, and warm; and much more proper as a bed for vegetable life."

"The great objection made by speculative chemists," continues he, "to paring and burning is, that it destroys vegetable and animal matter, or the manure in the soil; but in cases in which the texture of its earthy ingredients is permanently improved, there is more than a compensation for this temporary disadvantage; and in some soils, where there is an excess of inert vegetable matter, the destruction of it must be beneficial; and the carbonaceous matter remaining in the ashes may be more useful to the crop than the vegetable fibre from which it was produced."

"All soils which contain too much dead vegetable fibre, and which consequently lose from one-third to one-half of their weight by incineration, and all such as contain their earthy constituents in an impalpable state of division, *i. e.* the stiff clays and marls, are improved by burning; but in coarse sands or rich soils containing a just mixture of the earths, and in all cases in which the texture is already sufficiently loose, or the organizable matter sufficiently soluble, the process of torrefaction cannot be useful. All poor siliceous soils must be injured by it."

The deductions of science here accord with practice. But even in those cases where paring and burning may be recommended, great injury is yet to be dreaded from exhausting by severe cropping the productive powers of the soil thus stimulated. In this manner immense injury may be done, and has been done, and an instrument of beneficial improvement, if discreetly used, converted into a mean of ruining the soil.

When any kind of land is for the first time made arable, a good reason may perhaps exist for this mode of rendering it as soon as possible productive. But after land has been brought into a state of regular culture, it is difficult to believe, notwithstanding the authority of so many farmers in England, that paring and burning are good as a regular system. Great crops are doubtless raised in the Fens and other parts where this system prevails, but greater crops still are raised in the north of England and in Scotland, on inferior soils, and with a less favourable climate, where the system of paring and burning is unknown.

But while paring and burning may be thus judiciously and too indiscriminately practised, and

without the precautions that should attend it, there is no season why we should not avail ourselves of so powerful an instrument of improvement, when it can be beneficially employed.

The cases in which it may be safely used seem to be:—

1, In the case of cold clays, marls, and calcareous soils, when broken up for the first time.

2, In the case of moors, where there is a considerable stratum of peat, and which are broken up for the first time.

3, In the case of deep peaty soils, where there is an excess of undecomposed vegetable fibre.—*Low's Agriculture.*

### EAST-RIDING AGRICULTURAL ASSOCIATION.

The following PREMIUMS will be given, at the AGRICULTURAL SHOW, to be held at BEVERLEY, on Wednesday, the 27th day of July.

To the labourer in husbandry (who has not occupied more than half an acre of land) who has brought up and placed out to service the greatest number of children, without receiving parochial relief	£5
To the second approved candidate	3
To the third ditto	2
To the fourth ditto	1

The premiums to servants in husbandry, being unmarried persons, will be extended to those who have lived in several places, provided they have lived not less than four years in each service; to produce certificates from their masters or families, or in case of their death or removal, from two respectable persons of each service.

To the first candidate	4
To the second ditto	3
To the third ditto	2
To the fourth ditto	1

The same regulation shall apply to female servants and the following rewards given:—

To the first candidate	3
To the second ditto	1

The same regulation be applied to female servants in farming service, and the following rewards given:

To the first candidate	£3
To the second ditto (not living in service as Housekeeper)	2
To the third ditto	1
To the shepherd who has reared the greatest proportionate number of lambs from not less than 100 ewes	3
To the shepherd who has lived the longest time in one service	3

Any person obtaining the highest premium, in any one class, or the second premium for two consecutive years, shall not be eligible to again compete in the same class for the following year.

All competitors must have lived with families resident in the East-Riding, or town and county of Kingston-upon-Hull, during the periods of their servitude.

The second premium will not be given unless there are four competitors; the third, unless five; and the fourth, unless six.

For the best bull, of any age, from any part of the kingdom.....	£10
For the best two-year old or aged bull.....	5
For the best yearling bull.....	3
For the best cow in milk, or in breeding state.....	5
For the second best.....	3
For the best two-year old heifer.....	3
For the best yearling heifer.....	3
For the best tup, of any age, from any part of the kingdom (5 <i>l.</i> by the Association, and 5 <i>l.</i> added by Yarburgh Greame, Esq., of Sewerby).....	10
For the best aged tup.....	5
For the best Shearling tup.....	5
For the best pen of five breeding ewes.....	3
For the second best ditto.....	2
For the best pen of five shearling wethers.....	3
For the best pen of five shearling gimmers.....	3
For the second best ditto.....	1
For the best coaching mare.....	5
For the second best ditto.....	2
For the best mare for breeding hunters.....	5
For the second best ditto.....	2
For the best mare for breeding roadsters.....	5
For the second best.....	2
For the best cart mare.....	3
For the second best ditto.....	2
For the best boar.....	2
For the second best ditto.....	1
For the best sow.....	2
For the second best ditto.....	1
For the best three-year old coaching colt.....	3
For the best two-year old ditto.....	3
For the best yearling coaching colt.....	2
For the best three-year old coaching filly.....	3
For the best three-year old hunting colt.....	3
For the best stallion for getting coach horses.....	5
For the best stallion for getting hunters.....	5
For the best stallion for getting roadsters.....	5
For the best stallion for getting cart horses.....	3
For the best yearling stallion colt by Merry Legs, (given by Robert Denison Esq. of Kilnwick Percy).....	5

The second premium will not be given for cattle unless there are three shown.

The bulls to be kept in the East-Riding, and to serve the cows of the members at not more than one pound each for six months.

The tup obtaining the premium "for the best tup of any age from any part of the kingdom" to be let on the ground to the highest bidder.

The premium to the breeding cows, best heifer, the breeding ewes, and Shearling Gimmers, will not be granted to any cattle fed on any other than green food for four calendar months previous to the show, certificates to that effect to be produced, signed by two neighbouring farmers.

All stock must be the property of persons resident within the East-Riding, or town and county of Kingston-upon-Hull, (except bulls and tups hired for twelve months) and no stallion will be considered qualified unless he has served exclusively within the same limits during the preceding season, certificates of which must be produced to the satisfaction of the secretary.

The committee reserve the power of withholding any of the premiums, should the judges consider there is not sufficient merit, or not in adherence to the preceding rules.

The entry for the premiums to close on the Saturday previous to the show.

**SWEEPSTAKES.**

The following SWEEPSTAKES are also intended to be opened;—

Ten shillings each for the best bull.
Ten shillings each for the best cow.
Ten shillings each for the best yearling heifer.
Ten shillings each for the fat steer, under four years old.
Ten shillings each for the best aged tup.
Ten shillings each for the best shearling tup.
Ten shillings each for the best pen of five suckling ewes.
Ten shillings each for the best pen of five shearling gimmers, for breeding.
Ten shillings each for the best pen of five wethers.
Ten shillings each for the best pen of five shearling wethers.
Ten shillings each for the best boar.
Ten shillings each for the best sow.
Ten shillings each for the best two-year old coaching colt.
Ten shillings each, with 10 <i>l.</i> added by James Hall, Esq., of Scarborough, for the best three-year old coaching colt, bred by, or the bona fide property of the shower twelve calendar months previous to the show.
Ten shillings each for the best two-year old coaching filly.
Ten shillings each for the best three-year old coaching filly.
Ten shillings each for the best two-year old hunting colt.
Ten shillings each for the best three-year old hunting colt.
Ten shillings each for the best coaching mare.
Ten shillings each for the best hunting mare.
Ten shillings each for the best mare for breeding roadsters.
Ten shillings each for the best cart mare.
Ten shillings each for the best stallion for getting coach horses.
Ten shillings each for the best stallion for getting hunters.
Ten shillings each for the best stallion for getting roadsters.
Ten shillings each for the best stallion for getting cart horses.
Ten shillings each for the best yearling stallion coaching colt.

The entries will be made by the secretary, to whom the money shall be paid, and to close on the Saturday previous to the show.

All female stock shown to be the bona fide property of the shower.

All stock intended to be shown to be on the ground by 10 o'clock, and a fine of 2*s.* 6*d.* if after that time; at half past 10, no stock will be admitted except stallions, which will come on the ground at 12 o'clock.

No stock to be removed from the show ground before 1 o'clock, except stallions, which may be removed after they have been shown.

J. B. BAINTON.

Beverly, Jan, 1836.

Hon. Secretary.

**PRICES OF LABOUR.**—The factory operative, in England, works 69 hours per week, for which, on an average, he has 11*s* of wages; in America he works 78 hours and has 10*s*; in France, he works from 72 to 84 hours and has 5*s* 8*d*; in Prussia he works from 72 to 90 hours and has 5*s* 8*d*; in Switzerland, he works from 78 to 84 hours and has 4*s* 5*d*; in the Tyrol, he works from 72 to 80 hours and has 4*s*; in Saxony, he works 72 hours and has 4*s* 6*d*; in Bonn, in Prussia, he works 94 hours and has only 2*s* 6*d*.—*Factory Commission Report.*

## COMMUTATION OF TITHES.

ABSTRACT OF THE BILL FOR THE COMMUTATION OF  
TITHES IN ENGLAND.

[Note.—The words printed in *Italics* are proposed to be inserted in the committee.]

Clause 1. Appoints three commissioners—two by one of his Majesty's principal Secretaries of State, and one by the Archbishop of Canterbury, under his hand and episcopal seal.

2. They are to be styled, "The Tithe Commissioners for England and Wales;" and, by summons under their hands, may require the attendance of all such persons as they may think fit to call before them upon any matter brought before them as hereinafter mentioned relating to the tithes; or, in lieu, may require any person to make and subscribe a declaration. No person to travel more than ten miles from the place of his abode.

3. The Board to have a common seal, and its awards to be received as evidence.

4. The commissioners to report to the Secretary of State, and the annual report to be laid before parliament.

5. The said commissioners may from time to time appoint such persons as they may think fit to be assistant commissioners for carrying this Act into execution, at such places and in such manner as the said commissioners may direct, and in like manner may remove such assistant commissioners, or any of them at their discretion; not to appoint more than *nine* such assistant commissioners to act at any one time, unless the Lords-commissioners of his Majesty's Treasury shall consent to the appointment of a greater number.

6. No commissioner or assistant commissioner to sit in parliament.

7. Commissioners to appoint secretary, assistant secretary, clerks, and other officers.

8. No commissioner or assistant commissioner, secretary, or other officer or person so to be appointed shall hold his office for a longer period than *five* years.

9. Every commissioner and assistant commissioner to make the following declaration before one of the Judges:—

"I, A. B., do declare, That I will faithfully, impartially, and honestly, according to the best of my skill and judgment, fulfil all the powers and duties of a commissioner [or, assistant commissioner, as the case may be] under an Act passed in the sixth year of the reign of King William the Fourth, intitled [here set forth the title of this Act].

Notification of appointment to be sent to Clerks of the Peace.

10. The commissioners may delegate to their assistant commissioners, or to any of them, the powers given to the said commissioners (except the power to do such acts as are required to be under the seal of the said Board).

11. Reasonable expenses of witnesses are to be paid.

12. The owner of any lands and owner of any tithe may contract with each other, in manner hereinafter mentioned, for the commutation of tithe for an annual rent-charge to be agreed upon between the contracting parties, in full satisfaction for such tithe. No such agreement, so far as the same shall relate to any tithes due to any ecclesiastical person, not being a corporation aggregate, in right of his benefice shall be of force for any longer period than during

the incumbency of such person in such benefice, unless the same shall have been confirmed during his incumbency, by the patron of the benefice, and the ordinary of the diocese, or by the commissioners; and no such agreement, if made with the consent only of the owner of an estate in any land or tithes, less in the whole than an immediate estate of fee simple or fee tail, shall be of force for any longer period than during such particular estate, unless the same shall be confirmed by the commissioners.

13. In this Act, the word "person" shall comprise all corporations sole and aggregate; and the word "tithes" shall comprise all tithes, compositions real, moduses and prescriptive payments in lieu of tithes, dues, oblations, and obventions; and every benefice shall be taken to be within that diocese by which it is surrounded, or with which it has the longest common boundary: and the word "lands" shall comprise all messuages, lands, tenements, and hereditaments; and every person in the actual occupation of any lands or tithes, not let to him at rack rent, or any person in the actual receipt of the rack rent of any lands or tithes, either on his own account or as mortgagee or other incumbrancer in possession shall be deemed the owner of such lands or tithes respectively; and the words "rack rent" shall mean any rent not less than *three fourths* of the full improved annual value of such lands or tithes; and every person for the time being entitled to present to the next vacancy of a benefice, shall be deemed the patron of the said benefice: with some provisos.

14. When the same person is owner of lands and owner of tithes, he may be dealt with in both characters.

15. When ownership of lands or tithes or patronage is vested in the Crown, the Lord High Treasurer, or First Lord Commissioner of the Treasury for the time being, where the value of such benefice is of the yearly value of twenty pounds or upwards in the King's books, and where such value is below the value of twenty pounds in the King's books, the Lord Chancellor or Lord Keeper, or First Lord Commissioner of the Great Seal for the time being, shall for the purposes of this Act be substituted instead of the patron.

16. In case the patron or owner of land is a minor, the guardian or committee to act.

17. To every contract which shall be entered into for the commutation of tithe, there shall be parties as well as the owner of the lands whereof the tithe is proposed to be commuted, as also every owner of any tithe arising from or upon such lands, or any part thereof; and in case at the time of the entering into any such contract, the said lands or any part thereof shall have been demised and let to farm, or agreed to be demised and let to farm to any person, such farmer may, with the consent of the other parties to the said contract, join in and be a party thereto, &c., with various provisos.

18. Different owners may concur in one contract, if the land of every owner be sufficiently distinguished.

19. Every contract shall be engrossed or written on parchment, and shall set forth the names and descriptions of the several persons parties thereto, and shall state in what right such persons are respectively made parties thereto, and shall specify the lands whereof the tithe shall be intended to be thereby commuted, &c.

20. Upon the 11th day of October next following the completion of any such contract, the lands specified therein shall, during the continuance of such contract, be absolutely discharged from the payment of all tithes; and instead thereof shall be payable

thenceforth the clear yearly sum agreed to: and such yearly sum shall be payable by two half-yearly payments on such days in every year as shall be agreed to, or if no such days are mentioned in that behalf, then on the 6th day of April and 11th day of October in every year, the first payment being on the 6th day of April next after the lands shall have been discharged from tithe; and such rent-charge may be recovered at the suit of the party entitled thereto, his executors or administrators, by distress and entry, &c.

21. Tithe to be liable to parochial and county rates.

22. Parochial meetings may be called, at which owners of three-fourths of the uncommuted tithes may agree to bind the whole parish, if not appealed from.

23. Assistant commissioners may attend to advise terms of agreement.

24. All agreements to be made known to patron, bishop, and commissioners; and consent of bishop and patron to be made known to commissioners, and published.

25. Appeals from parochial agreement may be made to commissioners within one month; costs of appeal to be paid according to the decision of the commissioners.

26. If no agreement, land owner or tithe owner may call on commissioners for an award; and the commissioners shall hereupon proceed to make and confirm such award, and to assess and certify the costs thereof, and by whom payable and in what proportions.

27. The award shall be binding on all persons and for ever, as if an agreement of the same tenor had been made between the parties in manner hereinbefore mentioned, with the consent of the patron of the benefice or ordinary of the diocese, such consent not being necessary.

28. Value of tithes to be calculated according to the average rate and clear value of tithe during the seven years ending at Michaelmas next preceding the making of the said valuation. Tithe taken in kind, according to the clear value thereof, after making all just deductions on account of the expenses of collection or otherwise. Composition tithe according to the amount of composition or rent agreed to be paid for the said tithe, whether such composition or rent has or has not been actually paid. All these tithes to be valued as chargeable to parochial and county rates.

29. In cases to be modified, notice in writing shall be given that the sum paid for tithe or by way of composition upon an average struck during the said period of seven years, does not fairly represent the sum which ought to be taken for calculating a permanent commutation thereupon, the commissioners shall also ascertain, as nearly as may be, the average rate and gross value of such tithe, if the same had been taken in kind during the whole said period of seven years, without having regard in the valuation to any such composition or agreement, and without making any deduction on account of the expenses of collection or otherwise: and in every case in which the average sum paid or agreed to be paid during the last seven years, as aforesaid, shall appear to be less than sixty pounds for every hundred pounds of the average value of the tithe so estimated, if taken in kind during the same period of seven years, the sum taken for calculating a permanent commutation thereof shall be sixty pounds for every hundred pounds of the value of the tithe taken in kind; and in every case in which the average sum so paid, or agreed to be paid, shall appear to be more than

seventy-five pounds for every hundred pounds of such average value of the tithe taken in kind, the sum taken for calculating a permanent commutation thereof shall be seventy-five pounds for every hundred pounds of such value of the tithe taken in kind, and the average sum so paid, or agreed to be paid, if more than sixty pounds and less than seventy-five pounds for every hundred pounds of such average gross value of the tithe taken in kind, shall be taken without alteration for calculating a permanent commutation thereof.

30. The tithe of hops, fruit, and garden produce is to be valued according to the average rate of composition for the tithe of hops, fruit, and garden produce respectively during seven years ending Michaelmas next before such valuation.

31. All lands, whereof the tithe shall be commuted under this Act, which shall be newly cultivated as hop grounds at any time after such valuation, shall be charged with an additional sum of fifteen shillings per acre over and above the amount of the rent-charge, charged as herein provided, whilst not cultivated as hop-grounds; that no such additional sum shall be charged or payable during the year next after such new cultivation, and half only of the said additional sum during the year next but one after such new cultivation, and that all lands, whereof the tithe shall have been separately valued as hop-grounds, and which shall cease to be cultivated as hop-grounds at any time after such valuation, shall be charged from the eleventh day of October next following the last crop of hops grown on the said lands, in lieu of the rent charge charged thereon as hop-grounds, with the rent-charge, which, in the judgment of the commissioners, shall appear to be the average rate of composition for tithe within the district.

32. Commissioners may employ surveyors, and enter on lands for the purpose of valuing tithes.

33. As soon as admeasurement, plan, and valuation shall have been made, the commissioners to deposit the same at some convenient place within the said benefice, they are also to attend to hear objections thereto, and determine any objections which may be made, &c.

34. Old plans and surveys may be used if the commissioners think proper.

35. The commissioners to determine all disputes, subject to appeal by an issue at law, or by taking the opinion of a court of law or equity thereon, and disputed rights may be compounded or referred.

36. Owners of particular estates, less than fee simple, may charge the costs on the estate for twenty years.

37. The determination of the said commissioners touching any difference, concerning which no power of bringing an action or of stating a case is given, or which shall not be over-ruled by the event of the trial, shall be final and conclusive on all persons concerned.

38. Proceedings not to abate by death of parties.

39. In case of deaths of parties before actions brought, &c. the same to be carried on and defended in their names.

40. After such proceedings shall have been had, and all such differences, if any, shall have been finally determined, the said commissioners shall make an award in writing under their hands concerning the premises, containing all the particulars directed to be inserted in contracts executed under this Act. No such award shall be of any force until it shall have been confirmed by writing under the hands and seal of the said Tithe Commissioners. Three copies of every award and contract under this Act confirmed by the commissioners shall be made, and sealed with

the seal of the said commissioners; one copy to be sent to the clerk of the peace for the county within which is the benefice whereof the tithes have been so commuted, to which all persons interested may at all reasonable times have recourse; another copy shall be deposited in the registry of the Consistory Court of the diocese within which the benefice is situated; and the other copy shall be deposited with the incumbent and church or chapel wardens, or other proper officers of the benefice for the time being to be kept by them and their successors in office with the public books, writings, and papers of the benefice, to which all persons interested therein may have access.

41. Rent-charge may be apportioned on separate fields and closes.

42. The Comptroller of Corn Returns shall cause an advertisement to be inserted in *The London Gazette*, stating what has been during seven years, ending on the *Thursday* next before the *twenty-ninth* day of *September* then next preceding, the average price of British wheat, barley, and oats, computed from the weekly averages of the corn returns.

43. That every contract for the commutation of tithes which shall be entered into, and every award which shall be made and confirmed pursuant to the provisions of this Act, shall be taken to be made and confirmed respectively, according to the prices of wheat, barley, and oats, as the same shall be ascertained by the advertisement so to be published next before such contract shall have been made, or such award confirmed, so that every rent-charge agreed or awarded to be paid by any such contract or award shall be deemed at the time of the entering into such contract, or the confirmation of such award, to be of the value of such number of bushels and decimal parts of a bushel of wheat, barley, and oats, as the same would have purchased at the prices so ascertained, in case one-third part of such rent-charge had been invested in the purchase of wheat, one-third part thereof in the purchase of barley, and the remaining third-part thereof in the purchase of oats.

44. All parties entitled to any such varied rent-charge shall have the same powers for enforcing payment thereof, as are herein contained concerning the original rent-charge.

45. When rent-charge is in arrear for twenty-one days after quarterly days of payment, the person entitled thereto may distrain, with various provisos.

46. When rent-charges are in arrear for forty days after half-yearly days of payment, the persons interested may enter into possession of the lands.

47. Powers of distress and entry to extend to all lands within the benefice occupied by the owner, or under the same landlord or holding.

48. Spiritual persons vacating benefices may recover arrears of rent-charge.

49. Advertisements, contracts, and awards, not to be liable to stamp duty.

50. Contracts for the composition of tithes subsisting, and tithes due, before this Act, not to be affected.

51. Act not to extend to Easter offerings, &c., or to payments instead of tithes in London, or to permanent rent-charges by custom or Act of Parliament.

52. False evidence to be deemed perjury; withholding evidence a misdemeanour.

53. Costs of ecclesiastical title owners may be charged on the benefice for twenty years.

54. And be it enacted, that this Act shall only extend to England.

## AGRICULTURAL DISTRESS—ITS EXTENT—ITS CAUSES—AND THE MEANS AND PROSPECT OF RELIEF.

We would be going in the face, not only of our own admission last week, but in the face of the general assertion of the country, were we to deny that there is distress among our agriculturists; but whilst we assent to this, we are by no means prepared to admit that this distress is either so great or so general as many boldly assert; and we found an opposition to those who are clamorous on this point, upon the events which we daily see passing around us. Looking into these, we do not find that the removal of tenants from their farms is so common as general distress would imply; and were all the removals that take place minutely inquired into, we would find that a great proportion of them originate in the caprice either of landlords or tenants at the expiry of leases—in the misfortunes of farmers by foolish acts of cautionary, or by loss in the sale of their produce—in prodigality; or some other cause than an undue proportion between the value of the produce of farms and the rent covenanted to be paid. Should it be said that our tenantry, generally, though not sold out, are struggling in difficulties, we would reply, that this has been so long said, that it is not now worthy of belief. Had it been as true some years ago that distress generally prevailed, as then loudly asserted, it must, ere now, have proved ruinous, not to a few only, but to many. Besides, in our intercourse with society, we do not find our tenants so dolorous, as great distress would necessarily imply. Meet with them on market days, and you yet hear the hearty laugh which shews that they are not "ill at ease." Look at the respectable appearance of themselves and of their families on public occasions, or visit them in their dwellings, and experience their kind, their ample and highly comfortable fare, and you must come to the conclusion that their farms are yet capable of affording them something more than the mere necessities of life. Were rents unpaid, this position would not hold good; but we appeal to proprietors, and others, whose business it is to collect the rental of the country, whether farmers generally do not pay as regularly and as well as they paid years ago. If asked how we account for this, considering the acknowledged fact, that the rent of land has not fallen in the same proportion in which the value of produce has been diminished, we would answer, that if produce be now lower than it was a few years ago, it is more abundant; not merely from the great improvements that have been made in the country, but from the introduction of bone manure, by which the farmer is enabled to raise a breadth of green crop, before unknown, and consequently to feed an extra amount of cattle or of sheep, and, as a still farther consequence, to raise an extra amount of grain—an increase which will, it is presumed, nearly, if not altogether, indemnify him for the diminution in price. The diminution in price, may, indeed, in a great measure, be considered the result of an increase in quantity; the golden rule in arithmetic—less requiring or giving more—and more less—applying strictly to produce and price. It is not necessary however, in this theory, to assume that the increase of quantity should fully meet the reduction in price, as there are some things in which the farmer himself has the benefit of the reduction. The amount of capital at interest in stock is less. His servants or



labourers are now more easily engaged. His general expenditure is not so great; for in proportion as shopkeepers, tradesmen, or others, with whom he may deal, can purchase farm produce cheap, they can afford to sell or give, at a reduced price, the articles which the farmer requires. To these circumstances we may add, that there is now more of industry, and less of prodigality, than was witnessed—say 20 years ago, when many of our farmers indulged, we would almost say to midnight riot, every time they attended a public market, and brought up their families in extravagance, and in a foolish expectation of the future. Now we behold them, generally, from a consciousness we shall say, of the folly of an expenditure they can ill afford, retiring to their homes with the setting sun, and exacting a fair portion of industry from their children. This is unquestionably a change, but will any one say that it is a pity they are not now enabled to hazard a broken neck at midnight, or to bring up their boys in idleness and extravagance, ere they have learned to hold the plough by which they propose to earn their bread,—the consequence of the former system being, that they had generally ceased to be regarded as gentlemen, when they had reached the age of men.

We shall, however, grant, notwithstanding all that we have advanced, that there is in many cases a continued diminution of the farmer's capital, and in many instances much difficulty in making up the rent—denying only that distress exists to the extent alleged; and having granted this, we proceed to inquire what are the real causes of this state of things? Many, we are aware, would at once throw us back upon a fact we have already admitted, namely, that rents have not fallen in the ratio of produce; but this we hold is not a philosophic or satisfactory cause of the difficulties experienced in the agricultural world. Had high rents been continually obligatory since the establishment of peace in 1815, we would not have disputed the position that the great reduction in the price of produce is the true cause of the difficulties which our agriculturists experience; but since that time almost all the land in the country has been let once, or more probable twice, much of it oftener, and within the period in which agricultural distress has been a leading theme. Nor are we at all aware that those farmers who have recently entered upon leases are one whit more exempt from difficulty than those who have been a considerable number of years in possession. Instead, then, of accounting for the amount of agricultural distress which may prevail, from the fall in produce beyond the fall of rent, we should rather inquire how it is that rents have not fallen to the rate which the price of produce should dictate to the farmer to offer to the proprietor of the soil? A full inquiry into this, would, we suspect, lead us into an extent little suited to the columns of a newspaper: but, anxious to disabuse the public of false impressions, we shall try, as shortly as we can, to place the subject in what we consider its proper light. The cause, then, in our opinion, is compound, not simple; or in other words, we hold that the difficulty experienced is the result of a combination of circumstances and springs of action, rather than of any one circumstance, or any one principle of action in the human mind.

The first circumstance we shall mention, which in our opinion tends to the evil complained of, is the acknowledged fact that we are an increasing and almost overpeopled country, not only in our commercial but in our agricultural districts; for though

much is said about the numbers who emigrate to America or other distant regions, they are as small dust in the balance compared with those who remain at home; and to this increase in population there seems no positive limitation. The extent of agricultural possessions is, on the contrary, determined: improvement may render these more productive and valuable, but the boundaries are by nature defined, and consequently where many wish accommodation, only some can be supplied. Nor is the demand for the possession of lands confined to the natural succession and increase of the agricultural classes of society. There are always a number who have amassed a smaller or greater amount of capital in the commercial world, either at home or abroad, who are desirous of spending the autumn of life in rural retreat, and these competing with the ordinary class of agriculturists are sure to increase the evil which an overdemand is calculated to produce. It is evident therefore, that any one really desirous to possess will bid as freely as he dare, knowing that others will be actuated by the same consideration: and that if he does not thus freely offer he cannot hope to succeed. It may be said that this may induce a person to offer freely, but not beyond what he considers the real value of a farm. There is however another circumstance which should not be forgot; men of comparatively limited capital already engaged in agriculture may continue in a farm and sustain a small loss, and after all not be so much injured as if they had sold out and lived exclusively upon their capital, or at least take as much from their capital as is necessary, with the interest of it, to procure them decent support; they know besides that if they should sell out they must part with many things at a considerable loss, should they soon again, as they generally design, return to agricultural pursuits.—There is moreover in man not only an *amor patriæ*, but an *amor loci*,—an attachment to the place of his nativity, or to the situation where he has for a length of time to reside, the beauties of which he has often looked upon with pleasure, and the society of which has become dear to him from continued intercourse—too oft inducing him to go almost beyond his judgment ere he say farewell. And if discomfited here, and virtually forced to complete in another quarter, there is then too generally either an ignorance of the real value of the lands for which he offers, or a vain, but ultimately delusive hope, that he will, by judicious improvement or dexterous management, make the lands more productive than they have hitherto been, which leads him to bid beyond the proper mark. The law of hypothec, too, it would be vain to deny, has an influence in keeping land somewhat higher than it would otherwise be. We lay little stress upon the influence which this law has in inducing a dishonest person to offer more than the value of a farm that he may obtain possession, and having obtained it gain the protection of his landlord against those to whom he stands justly indebted, as it is well known that this is the exception and not the rule; but were there no right of hypothec, proprietors would be much more chary whom they trusted, and consequently there would be less competition, that is, fewer offerers worthy of being accepted, the result of which would be a reduction of rent,—the market value of any thing, as every one knows, depending upon the relative proportion of supply and demand. Such are some of the circumstances and principles of action which in our opinion operate in keeping land fully higher than the price of produce seems to admit. Whether

there is any cure, or any which it would be proper to adopt, we shall now shortly consider.

The amount of duty upon foreign grain for the last few years has been equal to a complete prohibition, with the exception of Canada, the supplies from which have not been of great amount; it is evident, therefore, that if any efficient relief can be granted, it must be by other means than an alteration in the Corn Laws. With regard to the taxes which press directly, or in any degree exclusively, upon the agriculturist, they are so trifling, that it is equally evident their removal could afford no great relief. The Malt Tax, it is true, is virtually a burden upon agriculture, as the increased price from the duty imposed tends to diminish the consumption of grain, and consequently the demand; but notwithstanding what has been advanced by the Marquis of Chandos, and others who adhere to his views, we are not satisfied that the agriculturists would receive any real, at least any permanent relief, by the adoption of his scheme. Were the Malt Tax removed, and an additional duty laid upon spirits in lieu of the benefit which the distiller would receive, it would, we admit, increase the consumption of malt liquor, and would thus seem to benefit the agriculturist by leading to an increased demand for grain; but if as we think, the increased use of malt liquor would lead to the diminished use of ardent spirits, the amount to the agriculturist would ultimately be more nearly balanced than may at first be imagined. But even were it otherwise, it would only be for a short time, that the relief would be felt. If men in offering for farms now are apt to run beyond the proper mark, in order to obtain possession, they would in future take the benefit resulting from the alteration in the Malt Tax into account, and again run beyond the proper bounds. Nor would an alteration in the currency of the country, even if rendered agreeable to the exploded nostrums of a certain class of political economists, thereby unhinging all the private relations of society, afford the farmers of the country any real relief. As soon as present leases expire, men in competing would take this change also into account, and be induced to offer more freely than they would otherwise have done. In leases, in regard to which the rental depends upon the price of produce, there would not be even temporary relief, as the increased price of the article, resulting from the depreciated state of the currency would only tend to increase the rental of the land—not the profits of the tiller of the soil. In regard to relief from reduction of rents, or liberty to depart from leases when these are held to be unprofitable, we think there can be but one opinion. However much it may be the duty of landlords to relieve tenants in distress, rents and leases are entirely conventional—they are matters in which the Legislature has no more right to interfere than it has in the ordinary transactions of the mercantile world. If there is any one circumstance tending to keep up an undue proportion between rental and produce with which the Legislature could with any seeming propriety interfere, it is in our opinion the law of hypothec; but whilst we would admit the legality of interference on this point, we would much doubt the strict justice, the policy, or the humanity of the deed. No man, we think, will deny that land is the great staple of the nation. The Government may apply to the profits of merchandise, or many other means, in the days of prosperity and peace; but the source to which they could successfully apply in the days of diffi-

culty and of war would be the proprietors of the soil. Our mercantile affairs might soon become deranged; our merchants, our artisans, our machinery might soon take shipping from Bristol to Baltimore, or from Hull to Hamburg; our landed proprietors might alone remain capable of being operated upon by the hand of legislation. Is it not, then, an act of common justice, as well as an act of policy in the Government to protect those now on whom they might alone be enabled to call in the hour of difficulty and distress? We have also said we doubt much if the removal of the law of hypothec would be an act of humanity. How many industrious individuals have, from this circumstance, been enabled to enter upon and continue in farms who otherwise must have remained in the most humble situations in life? How many of the younger branches of the families of farmers have from this circumstance been enabled to enter upon, and continue in possession of farms, who otherwise must have remained drudges with their fathers, or have been forced to emigrate from their native land? Without this the proprietor would not accept,—would not indeed be justified in accepting, offers which he now receives from those who have realized, or who can procure from their friends enough to enable them to enter upon possessions, but who could not offer a sufficient guarantee through the currency of a lease. We do not mean to assert that were the law of hypothec annulled, land would remain untenanted or unproductive; but that it would be apt to fall into a less numerous and less amiable class of men. Those who had by any means been put in possession of wealth would become the principal possessors of the soil, if of an avaricious disposition, heaping wealth upon wealth, whilst the poorer, but often more noble part of our population would be forced to be their dependents. And here the policy of the Government continuing the present law of hypothec again strikes into view, as the generous, though not extravagant, expenditure which is necessary to the revenue of the country would receive a check. It is true that the extensive and avaricious holders of the soil would not live for ever, and that their wealth would fall into the hands of others whose prodigality would probably equal the avarice of those from whom that wealth was derived, and thus the fisc of the country would not be materially injured; but it is not clear, admitting our position that one selfish or sordid class of farmers would succeed another, and one class of prodigals succeed another, and that thus we would have an ugly combination of avarice and prodigality, instead of that beautiful moral picture which we now behold in our industrious, generous, and comparatively happy though not rich class of agriculturists? From these remarks we come to the conclusion that, in so far as difficulty is experienced in the agricultural world, no full or effective relief can be attained by legislative means; and that in so far as it is practicable, the means, if adopted, would engender evils greater than those which at present exist.

The Chancellor of the Exchequer has assured Mr. Barneby, M.P., who was deputed at the recent Bromyard meeting to present a memorial on the subject, that it is not the intention of Government to make any alteration in the hop duty.—*Hereford Journal*.

## HORSEMANSHIP.

## AIDS, CORRECTIONS, ANIMATIONS, &amp;c.

It will be perceived, that, while describing the operation of the hand in the preceding chapter, the subjects which comprise the present article, or division of the work, were necessarily brought before the reader; but as they were noticed only as far as they were intimately or inseparably connected with the subject, it becomes requisite to proceed to further elucidation.

In the first place it may be observed, that aids are the indication of the rider's will to the horse; they request the animal, assist him, and, at the same time, prevent him from acting in opposition to the desire of the horseman. When the positions of the legs and body deviate from the *seat*, (as already described under a separate head) for the purpose of giving assistance to the hands, they are called aids; but when, for the purpose of maintaining the seat, or preserving the balance, they are necessary variations of position, and will be found as many as the variations of the positions of the horse, to which they should always correspond, in order to ensure not only the ease, but also the safety, of the rider.

The aids of the legs possessing a progressive strength, produce effect accordingly, and are thus to be applied or given:—the leg being brought nearer to the side of the horse, is the first degree, or lightest aid. Placing the leg further back, with the toe turned a little out, is the next. The lightest touch with the calf of the leg is the third; and so on, increasing the degree of pressure according to the force or strength of the required aid. The strongest aid is the application of the spur; when the leg is strongly applied without effect, drop the toe, by which the spur will come in contact with the side of the horse; it should be slightly applied,\* and if not effective, should be followed by giving the spur smartly, which is called a *correction*.

Aids with the whip are used, when requisite, to assist or give greater effect to the heel. These consist of gentle taps on the hind quarters, and sometimes on the shoulders. When given on the near side, the hand must be applied behind the back, with the whip held by the fingers somewhat after the manner in which a pen is held, or crossing the bridle-hand when intended for the shoulder.

Corrections are given by the whip and spurs. The common uses of the whip and spurs to animate and quicken a horse are not called corrections, even though they should be applied with severity. *Correction* is administered for disobedience, obstinacy, and vice; and should be so applied that the horse may be sensible for what he receives them. For instance, should your horse kick at the application of the whip to his flank or quarter, you should, at the instant, administer the correction sharply; should he kick at it, give it more severely; by which the animal is made sensible of his fault, and punished for it at the same time.

Good-tempered, well-broken horses seldom require correction; nor indeed should it ever be administered but when imperiously demanded; its general application must depend much upon the sense and feeling of the rider. It sometimes happens that correction avails nothing, as there are some horses, when determined not to yield to the whip and spur, will sooner die than submit; and when the whip and spur have been smartly applied several times without effect, (as will often happen with restive horses) other methods should be adopted, which have been already pointed out.

The method of applying the spur is to lower the toe, that the spur may be given full; and, if necessary to apply the spurs with force, remove your legs from the sides of the horse, by which it is evident your strength for the purpose in question is much increased.

When you correct with the whip, lift the arm high, apply the whip with force, and let the stroke take place behind the girths, round the belly. Sometimes correction is applied forward to the shoulders, but is much less effective than the former method.

Some horses disregard the whip, but answer the spur; others disregard the spur, but are fearful of the whip: but they are not numerous; few horses indeed, are indifferent to the spur.

*Animations* are requests or stimulations for exertion, life, and spirit, and proceed from the hand, the legs, the whip, and the tongue. The first has been already described as one of the properties of the hand. Animations of the legs are an application of them to the sides of the horse to induce him to increase his action. Animations of the whip are slight applications of it to quicken the horse—switching the whip in the air, without touching the horse, will very often answer the purpose. The animation of the legs and whip may be regarded as menaces indicating punishment, if disregarded. The animation or *clucking* of the tongue is too well known and too common, not to be well understood. It is an animation which is pleasing to the horse, as he answers it cheerfully. Of course, if too frequently used, it loses its effect.

Soothings are the opposite of animations. They pacify horses that are timid and easily frightened, and those that have much spirit and fire in their constitutions. They are very effective; but not so often used as they ought to be, since the whip and spurs are frequently applied, where soothings would much better answer the purpose. A horse, as I have already observed, is a friendly creature, is fond of being carressed, and seldom makes an ungrateful return for kindness.

The voice soothes by the soft mildness of its tone, which is well conveyed to a horse in the words—*Poor Fellow!*—*Good Boy!* and the like. The hand soothes by patting. The legs and body by a relaxation, sitting quite at ease. Let it be indelibly impressed on the mind, that patience and good temper constitute two very essential, very effective, and very beautiful principles in the management of the horse. Whenever a rider suffers irritability and passion to prevail, if he be not absolutely foiled by the horse, the business will finish in an unsatisfactory manner on both sides. Persevering mildness will not only accomplish

\* In the phraseology of the school, called a *scratch*.

every purpose, but will establish a consummate friendship between the horse and his rider.

### NATURAL PACES OF THE HORSE.

These are the *Walk*, the *Trot*, and the *Gallop*. There are horses, it is true, which are called *Amblers*, and there are others which will *Canter*; the latter is a short gallop; the former may be called (for the want of a better expression) an artificial movement; they are both, however, acquired from the instruction of man.

### THE WALK

Is performed with less exertion than any of the other paces of the horse, and is the slowest. The action of the walk is the alternate motion of the legs, marking four distinct beats as each foot in rotation comes to the ground; which is performed in the following order:—The off fore foot leading first, marks one; the near hind foot, two; the near fore foot, three; and the off hind foot, four. Though the feet follow each other quick, yet the slowness of the action causes the beats to be flat. The excellence of the walk consists in that degree of union which supports the horse's head, and raises his feet without shortening or retarding the step; and that degree of animation also, which quickens the step and sharpens the beats, without falsifying the time or altering the action. No horse can perform well without the permission or assistance of his rider:—for instance, if the head be not supported, the horse moves in a sluggish manner, and does not raise the foot sufficiently to put it well out, and place it down flat; the step consequently becomes shorter, and the horse is liable to catch or touch with his toe. On the other hand, if the head is supported too high, the horse cannot put his foot out, and the step will be shortened and retarded. Should you animate the horse, to quicken his step, in this situation, he would break time, and proceed into the trot.

### THE TROT.

This is a more animated and quicker pace than the walk, and is thus described: "the off fore foot and the near hind foot, mark one beat; and the near fore foot and the off hind foot, mark another beat; so that the action of the trot is two legs crosswise off the ground, and two legs on, which, in alternate change of situation, mark the time of one, two." It is a difficult matter, however, to ascertain exactly whether, in trotting, the horse really does move in the manner described. I never could completely satisfy myself on this head; but have sometimes been induced to suppose that two legs on one side were raised together, and the horse thus performed the first and second beat. On mentioning the subject to a military riding master, he replied, "that is impossible, as the horse, in that case, must fall on his side." This assertion does not appear conclusive, since we see that human beings or bipeds are under the positive necessity of using this lateral motion in their progression, nature having admirably contrived that while one foot is raised from the ground, the superincumbent weight is supported by the other side. Will not this reasoning apply to the trotting of the horse? However, let the matter be as it may, the

perfection of the trot consists in its suppleness, which gives the horse a free use of his limbs; next, in the union, by which the labour is more equally distributed; then the action, which should be true and equal (by which is meant that the liberty of the fore-quarters is not to exceed that of the hind; nor the hind the fore, otherwise the one will distress the other.) the knee up, the haunches bent, springy and pliant, the step measuring exact and true distances, marking a regular time of one, two.

In the trot, the horse leads with a foot either right or left, as in the gallop, by which the leading side is a little more advanced than the other. Most horses lead with the off leg; but if from fatigue or other cause, the horse changes from the leg to which he has been accustomed, it becomes very perceptible to the rider by the unpleasant motion which is thus produced.

### THE GALLOP.

As the trot proceeds from the walk, so the gallop may be said to proceed from the trot; since, if you animate your horse beyond the trot, he gallops.

The action of the gallop is thus performed:—Supposing the horse to be leading with the off leg, the near fore foot is first raised from the ground, then the off fore foot. These coming to the ground in the same order, the near fore-foot marks one beat or time; the off fore foot passing the other, while both are in the air, comes to the ground more forward, and is the leading foot, which marks the second beat. The hind feet follow in like manner, the near hind foot making a third beat; and the off hind foot, passing comes to the ground more forward, and marks a fourth beat. So that the action of the gallop is the two fore legs leading close after each other, and the hind legs immediately following in like order; which, when true, mark a regular, sharp, and quick time, of one, two, three, four.

The perfection of the gallop consists in the suppleness of the limbs, the justness of the action, and the regularity of the time.

The gallop is not true, when the horse's legs do not follow or accompany each other in the order described;—that is, when the horse leads with the right foot before, and the left foot behind; or with the left foot before and the right foot behind. Likewise a horse is said to be false, if, in galloping to the left, he leads with the right foot; also, if in galloping to the right, he leads with the left foot. For, though his feet follow in exact order, and the gallop would be just, if on a straight line; yet, on circles, or round sharp turnings, the leading foot must be that to which he is going; since the horse is not secure on his legs in these situations, unless the haunches are united and the croup in;—that is, the hind feet describe a circle something less than the fore feet, which secures his balance while he bends, and at the same time prevents his bending so much as he otherwise would be compelled to do, and which would consequently render his feet liable to slip from under him.

Finally, the gallop when disunited, as also when extended to speed, loses its harmony and regularity of time; as, in these cases, the fore legs measure less space from each other; as also the hind legs; which render the beats quicker in each,

and leave a space between the beats of the fore legs and the beats of the hind legs. It is highly imprudent to turn a sharp corner on the full gallop.

### THE STOP,

Or the halt, as a soldier would say, should be governed by circumstances, and must depend principally upon the speed at which you are going. I am perfectly aware that I shall be told by military men, and by professed riding masters (who pride themselves on their knowledge of the manege system) that the stop in horsemanship, is an instantaneous prevention of action, without the least previous indication given to the horse, whereby the animal may become acquainted with the intention of the rider. The following is the language of the school upon it:—"In the manege it is beautiful in effect; shows the great superiority of the rider's hand over the horse; thereby gives him confidence, confirms the horse in obedience, unites him, supple the haunches, and bends the houghs. The perfection of the stop consists in the action ceasing at the finish of a cadence, without breaking the previous time; the horse being so balanced on his haunches, and the animation still alive, that, with liberty given, the horse can advance with the same rapidity as before."

Now, the sudden stop in any pace faster than the walk, cannot fail to have an injurious tendency; and mischief can scarcely fail to result from the practice of it, particularly if the horse be moving rapidly. It will be very apt to spring the sinews behind, sprain the back, or hurt the loins. The military service may require the sudden stop when the horse is in rapid motion, for aught I know; but, let it be recollected that I do not profess to give instructions to our cavalry; and, under ordinary circumstances, I regard the sudden stop as a species of foolery, from the practice of which, as I have already observed, there can scarcely fail to result the most injurious consequences.

When the rider wishes to stop his horse, he should close his arms to his body, taking his pull at the bridle according to circumstances, at the same time pressing the calves of the legs and knees against the horse (according to the pace, &c.) bearing moderately in the stirrups, and leaning his body back. He will thus perceive that he procures a very firm seat, one which gives him great strength, and enables him to accomplish his object in the easiest and the best possible manner. Moreover, let him not endeavour to stop the horse too soon, unless to avoid a precipice or other danger. Let us reflect for a moment on the sudden stop at full gallop, with a weak horse and a heavy rider!

### LESSONS FOR FORMING THE HAND, AND ACQUIRING A CORRECT SEAT AND GOOD BALANCE.

The word *Lessons* would seem to imply the use of a school, and the assistance of a master; and both are highly to be recommended where they can be procured. In many large towns there is a building for the purpose of a riding school. The teacher should be a man of good sense; and should be fully aware that for horsemanship on the road or the ordinary purposes of life, or for riding

to hounds with ease, gracefulness, and safety, manege riding is not a requisite preliminary, nor indeed are the principles of it at all applicable. Should the learner not be able to obtain the use of a riding school or the assistance of a teacher, a grass field will answer the purpose of the former; and the proper application of the instructions contained in these instructions, will enable him to supply the place of the latter very effectually. Let him mark out with strong pegs (which can be easily seen) an oblong square, about sixty yards in length by thirty broad, upon which he can receive the instructions of a teacher, or teach himself, with the assistance of almost any person.

When children are to acquire the art of riding or horsemanship, they must, in the absence of a professed master, be attended by a good tempered groom, or some such person, who, if he will follow these instructions, the object in view can scarcely fail of accomplishment. It may frequently happen too, that grown up persons, utterly ignorant of horsemanship, may wish to acquire the art of riding; in which case the assistance already pointed out becomes necessary, at least in the early stages of the business. There are others, who, having frequently been on horseback, are nevertheless timid or awkward, and anxious to acquire greater skill for the purpose of riding with confidence, ease, and safety. There are others in the habit of riding, who, having acquired bad methods on horseback, have only to study the instructions here given to become expert and elegant horsemen.

A quiet, good tempered horse, with a delicate mouth, is to be preferred for the purpose of instruction, and in the case of children or very timid persons; the teacher should be mounted also for the purpose of riding by the side of the pupil, in order to be able to give the most prompt assistance; unless indeed, the longe is made use of in the first lessons, which is much the safest and best method. What I mean by this is, that the horse should move in a circle, a long rein being held in the left hand of the assistant or teacher and a whip in his right. Where there is no riding school, a large barn, or other building, with a level earth floor, of sufficient extent to allow the horse to form a circle of ten or twelve yards in diameter, would be a good place for the learner to take or practice his first lessons, as the intrusion of strangers might be thus prevented. However, whether in a building or field, let the pupil commence thus:—Let him approach the horse and mount. Having placed himself on horseback, according to previous directions, let the pupil adjust his clothes; let the stirrups be taken a vay, but his legs nevertheless placed in the same position as if his feet were in the stirrups or as nearly so as possible; let him then invite the horse to move (according to previous directions) and commence with the walk, the assistant or teacher holding the long rein in his left hand, the horse describing a circle around him.

By thus commencing without stirrups, the learner will acquire a good balance, and a firm grasp with his knees, legs, &c. After the pupil has acquired sufficient confidence he may trot, and this he will generally be able to perform before the finish of the first lesson. As he improves in his

balance and grasp, he will of course invite or press the horse to increased motion or pace—from the walk to the trot, from the trot to the canter or short gallop—always keeping his eyes on the circle a trifle before the horse. Let him circle to the right and left alternately.

In order to enable the pupil to throw his chest well forward, he may practice with his arms placed behind his back. After having acquired a good firm seat, he may use the stirrups, of the length already described under that particular head; and to the practice of circles may be added that of crossing from one side to another without altering the horse's pace, which will improve his seat as also his handling of the reins. In riding schools, there are figures on the wall for the purpose of directing the pupil; but, if he crosses to the right and left and *vice versa*, it is all that is required, and this can be done as well without figures as with them.

At first a lesson of half an hour's duration is sufficient, which may be increased to three quarters, and ultimately to an hour, resting a few minutes occasionally for the purpose of relief both to the horse and rider. I strongly recommend also occasional practice without the stirrups: indeed the commencement of every lesson should be thus performed.

As soon as the learner has acquired sufficient confidence he should finish each lesson with the leaping bar, beginning with it low and increasing the height by degrees, but never beyond four feet: nor should the horse be put over it more than six or seven times each lesson, lest the animal become disgusted, as no horse leaps willingly under such circumstances. Let the horse be walked quietly up to the bar, and take the leap standing, and as the learner becomes familiar with this department of the art of horsemanship, he can walk, trot, canter, or gallop to it, just as he pleases. It is generally said, that it is much more easy to sit the flying leap, than the standing leap, and such is the case under ordinary circumstances; but it is, nevertheless, strictly correct that the learner should commence with the standing leap, as it is much less alarming to him. The matter is quite different with an experienced horseman. A learner will contrive to keep on the horse in a standing leap, but the increased force or animation of the horse in the flying leap would alarm him, and he would be very liable to fall. Where the leap is of considerable height, the horse should be put briskly at it.

The subject now brings me to the position of the rider while leaping, which, however, in the modern phraseology of sportsmen, is called *jumping*.

### LEAPING.

This is an operation which is highly interesting to youth, and it must be admitted that there is something pleasing and even picturesque in it when well performed. I have many times observed bold riders after hounds, who nevertheless sat very awkwardly over their jumps; and for leaping to be accomplished in a proper or masterly manner, practice, judgment, and dexterity are requisite. The horse should come fairly up to his jump, and should receive just that degree of support from the

rider as is consistent with correct performance, and no more. It is a pretty art to put a horse well over his jumps.

I directed that the pupil should take his early lessons in horsemanship without stirrups; but in going over the bar, I recommend the use of stirrups in the first instance, which will give the rider more confidence, (since it is much more easy to jump with stirrups than without them) and after a lesson or two, I recommend him to practice without them.

As I have, in the preceding pages, repeatedly mentioned, that the great secret or art of horsemanship consists in the rider taking a corresponding position to that of the horse, I must remind the reader, that, in leaping, the truth of this maxim is strikingly exemplified. The position of the rider should change with that of the horse; for instance, when the horse is brought to the bar, the rider's body, should be upright, his legs applied firmly to the horse's sides, a trifle backward than a perpendicular, (by which the rider acquires a stronger hold with the knees and the calves) by which the toes become rather sunk, and if the toe be a little turned out, it will strengthen the muscular grasp. The stirrups should be of that length, so that, after you have assumed the position just described, you bear very little in them, but which will receive the usual weight which you bear in them as the horse lands on the other side. The hand of the rider should be placed in the centre, and low, the reins not too short, but that just by the pressure of your fingers you can feel the horse's mouth.\* In this position the rider should approach the bar, when the pressure of his legs and movement of the hand will invite the horse to rise, and as he rises, the body of the rider must come forward so as to preserve its perpendicular, or perhaps describe a very trifling inclination forward—the back kept in, the head firm. At the instant the horse takes his spring from his hind legs, the rider should slip his breach under (as it were) or forward, and let his body go very freely back—the hands down, legs close—till the horse's hind legs have come to the ground.

By way of elucidation, I will state the reasons for the particular directions which I have given in regard to leaping. I desired the hand to be kept low; since, if it were elevated, it would raise the horse's head and nose, and straighten his neck, in which position he would not be able to unite or gather himself for the purpose of rising and taking his spring. Let us for a moment look at a horse when at liberty in the field, since it is no uncommon circumstance for a horse to jump over the fence from one field to another; in this case the animal is unrestrained, and will perform the act of leaping in a manner the most pleasant and easy to himself, the most natural and the most correct. It will be perceived that the horse lowers his head, draws himself together, rises and takes his spring; and therefore when riding over the bar (or any other leap) the nearer we can approach the natural position, the more likely we are to perform the leap

\* Under the head "Riding to Hounds," more has been said upon the subject of leaping, as in hunting jumps are presented under all possible forms.

correctly, with ease and safety to the rider and also to the horse.

If a horse is forced to leap with his head held up (or even too tight) he cannot clear the jump—he cannot do otherwise than make an awkward business of it, and if he gets over, most likely all the four feet will come to the ground together, making what is called a *buck leap*, which is very unpleasant to the rider and also to the horse. I have seen horses which had contracted the habit of buck leaping; but such horses never leap well, and are unpleasant to ride.

As to what is called *lifting* a horse at his jumps, (a term constantly in the mouth of ignorant and unskilful horsemen) three times out of four it obstructs, rather than assists, the horse. Lifting can only be put in practice by a skilful horseman. When the horse rises, his mouth should be felt as lightly as possible, if at all, (I am supposing the standing leap) the hand, however, should support him gently from the moment he has taken his spring till he has fairly landed, the bearing of which should be tighter or more heavy as his fore feet come to the ground, which will materially assist both the horse and his rider. In the *flying leap*, as the horse goes with force, he will require more support from the hand, but precisely in the same way. The manner in which I have seen lifting practiced by ignorant riders is merely lifting or pulling up the horse's head, by which the animal is in general disabled from clearing the leap. When, in hunting, horses become fatigued, they require greater support from the hand, and may be materially assisted, if lifted judiciously.

The raising of the hand when the horse is rising at the bar, in those who are learning to ride, arises from fear; they attempt to hold on by the bridle, which method however, they must abandon, or they cannot succeed. The hand raised in this situation prevents the rider from leaning his body back; and if the horse makes a resolute or strong leap, the rider must be plucked or pulled out of the saddle upon the horse's neck.

The close application of the legs to the sides of the horse is so obviously necessary as to require no explanation. It will be perceived, page 187, that I direct the toe to be inclined downwards, which is contrary to the rules of the manège, the teachers of which direct the heel to be sunk, and the toe to be raised. To place the matter beyond all doubt, let any person get on horseback, try both positions, and then judge for himself. He will find, with the heels sunk *as much as possible* (for such are the manège instructions) the muscles of the legs become extended or stretched, and lose all compressive force or grasp; with the toe inclining downward, and the heel consequently raised, he will find himself enabled to grasp very firmly with the knee and the muscles of the legs, as I have already observed in the preceding pages. In fact, in one case you ride by the balance; in the other, you are enabled to give great assistance to the balance by the compressive force of the muscles,—you may get safely over by the balance if all goes right and smooth; but, should the horse swerve, or any irregularity occur, your seat will be disordered at least, and you are very likely to be thrown.

With respect to the back of the rider being hollow; were the body to be brought forward with a round back, it could scarcely assume the leaning position backward in time; whereas, if the back of the rider be hollow when the horse springs forward, it will naturally fall into the proper position, if the hand be not raised to prevent it.

If the head be not held firm, the action of leaping might occasion the rider to bite his tongue, or possibly cause a wrench of the neck.

Slipping the breech forward (under you as it were) gives the body more liberty to lean back; and unless the body is well back when the horse's feet come to the ground, the shock will move the rider forward, and in consequence, the horse loses the support of the hand, and both are in danger of falling. If you assume an upright position, or move your legs from their proper situation, before the leap is completed, you can scarcely escape disorder, loss of balance—perhaps a fall.

By leaning the body very freely back, the rider not only assumes the corresponding motion of the horse, but can also take firmer hold with his legs. A little practice will soon convince the learner of the truth of what I have just stated.

Let it be recollected that when the leap is well performed, the rider should be able to carry over the bar a shilling or halfpenny under each foot, each knee, and one under the rump. The seat should be close; if the breech or seat be ever so little raised from the saddle, there must be something wrong.

Leaping may be regarded as the very essence of the science of horsemanship, since it is upon the same principle that the seat must be maintained in all violent exertions or difficult situations of the horse.

#### ON BREWING.

The following is extracted from '*A Practical Treatise on Brewing and on Storing Beer, deduced from Forty Years' Experience,*' by Mr. BLACK:

"Most brewers use the soft water; yet some prefer the hard. Hard water, in my judgment, never obtains so good an extract from the malt; many however, think that the beer brewed from it is not so apt to fret as that which is brewed with soft. I am of opinion that a good fermentation, and subsequently good storing, will at all times prevent fretting in the beer. I should, therefore, recommend soft water. That which runs over chalk or limestone, and which is free from sulphate of lime (gypsum), is best. Where the water is hard, I would recommend throwing a little vegetable alkali (subcarbonate of potash) into the liquor in the copper before mashing. In adding this salt, take care that the water does not turn turmeric paper red; should it do so, the salt is then added in excess, and will do harm. I do not attribute the flavour of either the Burton or Scotch ale to any thing in the water.

"I would never recommend the month of October as the best brewing month, particularly for keeping beers. Fine open frosty weather will always be found more favourable to fermentation, and such weather I would always select for brewing keeping beers. Indeed, I am pretty sure that the beer brewed in frosty weather will always be found sounder than that brewed in muggy weather. In frosty weather the fermentation, if other causes do not prevent it, will

always be vigorous and healthy; and a vigorous and healthy fermentation is indispensably necessary for all beers intended for keeping, or exportation to a warm climate. I have often seen in the month of October more inert fermentation than in any other month in the year. And, as already stated, this fermentation is the most deceitful which can occur. I would, therefore, defer brewing any keeping beers until it can be done in frosty, or, at all events, cool open weather, which may be expected in December, January, February, and March. During these months, all keeping beers should be brewed, and when brewed they should be exposed as little as possible to the action of atmospheric air."

On the important topic of drugs (for, in the declining state of beer brewing, as well as in human consumption and other maladies, the doctor is called in), our authority offers the following observations:—

"Although, generally speaking, I object to every kind of drug in brewing, it would be folly to suppose that we can at times dispense with them. When every thing is going on well, no drug is necessary; but when sickly, a chemical remedy must be applied, and it is only then a brewer has it in his power to shew his skill by using proper remedies. He must, therefore, have some knowledge of chemistry, so as not to make use of any thing which may hurtful, or perhaps cause combinations which might turn out to be poisonous. We all know that sugar by a very simple chemical process is converted into oxalic acid—a deadly poison: so that a brewer, having no knowledge of chemistry, might from ignorance convert the saccharine of his worts into poison; or, by improper combinations, make his beer very deleterious. No man, therefore, without some knowledge of chemistry, is justified in trying experiments with an article of general consumption. The law, as it at present stands, forbids the use of chemical remedies; but I should suppose that its object is merely intended to prevent the use of deleterious ingredients, or substitutes for malt and hops. There is no law in France to prevent the flavouring of wines in any way the manufacturer may think proper, and there are very few French wines which are not in some degree artificially flavoured. When harmless ingredients, therefore, are employed for the purpose, I can see no objection to their being used; and if the law of this country did not forbid their use, I believe the introduction of more deleterious ingredients would soon be discontinued. How many travellers do we see traversing the country in all directions for the purpose of selling drugs to brewers, and that in such quantities as to make something like an apothecary's shop of a man's stomach. One drug is for the purpose of making the beer keep—another very desirable object—another for giving flavour; another to produce vivacity, &c. &c.; and the ignorant brewer is always induced to try them, by being told by these itinerant gentlemen that such and such eminent brewers always use them, and cannot do without them; although perhaps those eminent brewers have never seen or heard of such ingredients. Other brewers in the country are anxious to impart what is called the London porter flavour, and are told that it is impossible to do so without the use of these noxious drugs. I firmly believe, however, that no house of any respectability in London makes use of any other ingredient than those authorised by law, and yet the different flavours of the respective houses, proceeding from their various modes of working, are easily distinguished by a good judge. Any brewer, therefore,

using such drugs, without knowing their component parts, may absolutely, although very innocently, be making chemical combinations which will convert his beer into slow poison. Quite as good beer may be brewed from malt and hops alone, as can be produced with the assistance of any other ingredients whatever. But when we hear people say, 'Why cannot you give us beer of the same flavour as such another beer?' I reply, 'That the law will not permit it; such beer is flavoured with ginger, coriander seed, iris (orrice) root, &c., all harmless ingredients, but prohibited by law.' This law, as already stated, was made, I believe, for no other purpose than the prevention of the use of deleterious ingredients, or substitutes for malt and hops. Were it altered, however, so as to permit the use of harmless flavouring ingredients, not one half of the quantity of deleterious drugs would be consumed, which are now resorted to by ignorant brewers. Why should the brewer in England be prevented from giving to his ale a *bouquet*, after the manner that the French give a *bouquet* to their wines? I am surprised that this is not more practised in private brewing, where there is no such restriction; for instance, a pine-apple, raspberry, or strawberry flavour given to ale would be very pleasant, and impart to it a *bouquet* similar to the French champagne. There is also a substance which was, some time ago, in almost general use in porter, viz. sulphate of iron or salt of steel. The law, however, has imposed severe penalties on the use of it, and a test is applied for detecting its presence. The sulphate of iron is called, in the trade, heading, and gives to the beer a fine frothy top, which adheres to the pot or glass from which the beer may be drunk. It also imparts to the beer a sharpness of taste, generally much liked by porter drinkers. This heading when applied in small quantities, little more than a quarter of an ounce per barrel being necessary to produce the effect wanted, is not in the opinion of medical men deleterious, excepting to those of plethoric habits, who do not generally drink beer; on the contrary, it is deemed to be a good tonic, and in foul beer would make it more wholesome than it would otherwise be. It is certainly not a substitute for either malt or hops; and as people in general prefer porter which carries a good head for a long time, there is no good reason why it should be so severely prohibited by law. A substance is, I understand, made and sold by a chemist in London resembling capillaire, of which he sells considerable quantities. I am told that about one quart of this, when put into a barrell of thirty-six shillings beer, gives it a fullness equal to that at forty-eight shillings; and thus those that like very sweet beer are imposed upon. This, therefore, is certainly a substitute for malt, and should be looked after accordingly."

MONTREAL, Jan. 3.—At the opening of the navigation in the Spring of 1835, and for some few weeks after, very little spirit was exhibited in Wheat and Flour, and prices were unusually low. Lower Canada Wheat of the crop 1834, which was upon the whole of indifferent quality, did not rate higher at the early period of last Summer, than from 4s to 4s 6d per minimot, and that of Upper Canada which was mostly of prime quality, about 3s per bushel at the shipping ports on Lake Ontario. As to Flour, best brands Upper Canada fine were dull at 22s to 23s, and the trade confined almost entirely, even at these low rates to a trifling consumptive demand. The prospect for the season was at this period most gloomy. The Wheat crop of 1834 had been, in Upper Canada particularly, unusually heavy, but the depressed state of the English market, both in Wheat and Flour, forbid the expectation of a shipment



thence of either article, except at a ruinous loss. Indeed intelligence was early received of an intention to ship large quantities of Wheat, lying in bond at home, to Quebec and Montreal, which intention was subsequently carried into execution to a considerable extent. The low price of Flour in New York at this period excited some apprehension that heavy quantities would be exported thence to Halifax, for the supply of that and the other lower ports. Under such a combination of discouraging circumstances, the millers, though their stocks of Wheat had been laid in at unusually low rates, had good ground to apprehend a disastrous season's business. In the month of July however brighter prospects began to dawn upon the trade. Flour advanced in New York; heavy contracts were made for future delivery there; the receipts of Wheat as well as Flour from Ohio, a great grain-growing and manufacturing state, began sensibly to diminish; on investigation it was discovered that of the crop of 1834, an unusual proportion had been manufactured and sent to market in the fall of that year, occasioning a sensible deficiency in the balance of that crop for the manufacture of 1835. Speculation, always rife among our enterprising neighbours, was now alive, from the Atlantic markets through the whole west and south. Bread stuffs, as also every description of coarse grains, produced in the country, reached a price in the markets of the United States, unprecedented for a long period. Up to the moment of the new harvest, and until its product in the shape of new Flour reached the markets, this state of things continued presenting a degree of activity seldom before witnessed. It was but reasonable to suppose that so much excitement in the States, would direct the attention of their millers and speculators to the fine Wheat-growing districts in Upper Canada; and such was the fact, purchasers from the United States appeared in all those districts, and large as was the quantity there for sale, it did not exceed their wishes. The number of bushels purchased in Upper Canada and transported to the United States has been estimated at 300,000, and of Lower Canada probably about 50,000 bushels, all of which, on its introduction into the United States, was chargeable with a duty of 25 cents, or 1s 3d the Winchester bush. This was not the whole of this unusual and apparently unnatural feature of the trade. Flour of Canadian

manufacture, was also sought for, and favourite brands of fine, in large quantities, were purchased, transported to the States, and a duty of 7-8ths of a dollar per bbl paid, much of which passed inspection there as superfine, and yielded a fair profit, no doubt, on the investment; we have also good ground for congratulation, that remunerating prices to the manufacturers have been generally obtained, and fair returns to the shippers to Halifax, Newfoundland, and New Brunswick markets have also been received. In July the price of fine averaged about 26s, super. 30s 3d; in August, fine, 28s, super. 32s; September, fine, 27s 6d, and super. 30s. The crop of 1835 in the Lower Province has proved considerably below an average, and both the quality and condition are generally so inferior as to render it unfit for shipment to Europe; the demand for consumption still keeps up prices, old Wheat being now worth 5s 6d, and new of tolerable quality, 5s per minot. In Upper Canada the crop is reported to have been above the average of late years, but in many districts very poor as regards quality, being sprouted and otherwise damaged. The demand, however, from the States during last Summer having nearly exhausted the stock of old Wheat there, the price of new is maintained, and 3s to 3s 3d per 60lbs is paying at the shipping ports at the head of the Lake Ontario, and 3s 6d to 3s 9d per 60lbs at Cobourg, &c. Even in the event of the state of the home markets warranting shipments from hence next season, but little Wheat would be found in either province in a fit condition to transport. It is, therefore, probable that the demand will be limited to what is required for the consumption of the provinces, and what may be exported in the shape of Flour to the Lower Ports and West Indies. The FLAXSEED produced in this province over and above what was required for the next year's seed, has, until within the two last years, been chiefly used in the crushing mills in the province. It was long the custom with the country people to barter Flaxseed for Liverpool salt, minot for minot; of late, however, an active demand has sprung up for the article for shipment to New York, and it promises to become of some importance in our commercial intercourse with that city. All offered for sale here since last Autumn, has been readily taken at prices ranging from 6s 6d to 7s 6d per minot.

COMPARATIVE TABLE,

*Shewing the relative Value of Irish Grain in London, Liverpool, and Glasgow.*

WHEAT.				OATS.				BARLEY.			
Per bbl of 280 lbs.	Liver-pool, p. 70lbs	Glasgow per 240 lbs.	London, per 464 lbs.	Per bbl. of 196 lbs.	Liver-pool, p. 45lbs	Glasgow per 264 lbs.	London, per 320 lbs.	Per bbl. of 224 lbs.	Liver-pool, p. 60lbs.	Glasgow per 320 lbs.	London, per 400 lbs.
20 0	5 0	17 1½	33 1½	9 0	2 0¾	12 1½	14 8¼	14 0	3 9	20 0	25 0
21 0	5 3	18 0	34 9½	9 6	2 2	12 9½	15 6	14 6	3 10½	20 8½	25 10
22 0	5 6	18 10¼	36 5½	10 0	2 3½	13 6	16 3¾	15 0	4 0	21 5	26 11
23 0	5 9	10 8½	38 1½	10 6	2 5	14 1¾	17 1½	15 6	4 1½	22 1	27 8
24 0	6 0	20 7	39 10½	11 0	2 5¾	14 10	18 0	16 0	4 3¼	22 11	28 7
25 0	6 3	21 5	41 5	11 6	2 7¾	15 6	18 11½	16 6	4 5	23 6	29 5
26 0	6 6	22 3¾	43 1	12 0	2 9	16 3	19 7	17 0	4 6	24 3	30 4
27 0	6 9	23 1½	44 9	12 6	2 10½	16 11¾	20 5	17 6	4 8	25 0	31 3
28 0	7 0	24 0	46 4¼	13 0	3 0	17 6	21 3	18 0	4 9½	25 8	32 2½
29 0	7 3	24 10¼	48 1	13 6	3 1	18 2¼	22 0	18 6	4 11	26 5	33 0
30 0	7 6	25 8½	49 8½	14 0	3 1½	18 11¾	22 10	19 0	5 1	27 1	33 10
31 0	7 9	26 7	51 4¼	14 6	3 4	19 6½	24 0	19 6	5 2¾	27 6½	34 9½
32 0	8 0	27 5½	53 0¼	15 0	3 5½	20 2½	24 11	20 0	5 4	28 6½	35 8
33 0	8 3	28 4	54 8	15 6	3 6½	20 10	25 3	21 0	5 7½	30 0	37 6
34 0	8 6	29 2¼	56 4	16 0	3 8	21 6½	26 1	22 0	6 0½	31 5	39 3
35 0	8 9	30 0	58 0	16 6	3 9½	22 2½	26 11	23 0	6 2	32 10	41 0½
36 0	9 0	30 10	59 10	17 0	3 10½	22 10¾	28 0	24 0	6 5	34 3	42 10
37 0	9 3	31 8	61 3½	17 6	4 0	23 6½	28 5	25 0	6 8¼	35 8½	44 7½
38 0	9 6	32 5	62 11	18 0	4 1½	24 3	29 4¾	26 0	6 11½	37 1½	46 5
39 0	9 9	33 5	64 7	18 6	4 3	24 11	30 2½	27 0	7 3	38 7	48 2½
40 0	10 0	34 3	66 3	19 0	4 4½	25 7	31 0½	28 0	7 6	40 0	50 0
41 0	10 3	35 1½	67 11	19 6	4 5½	26 3	31 10	29 0	7 9½	41 5	51 9½
42 0	10 6	36 0	69 7	20 0	4 7	26 11	32 8	30 0	8 0	42 10½	53 6½

TO THE EDITOR OF THE MARK  
LANE EXPRESS.

*Lynch Court, near Leominster.  
Jun. 23, 1836.*

SIR,—In my last letter to you on the subject of Agricultural Distress, I promised at some future time to send you my opinion as to the measures which I considered most likely to relieve it. I will now endeavour to redeem my pledge; but before I do so, I must beg to say a few words upon the observations you have made at different times in your paper and endeavour to show that your views of the subject are erroneous, and that the plans you recommend will be ineffectual in producing the anticipated result. In a letter addressed to you by Mr. Knight of Downton Castle, (and which has run through the whole radical press of the kingdom, accompanied by your encomiums) he states, that the only thing necessary for the relief of the farmer is a reduction of rent. Now Sir, you stated, I think in your last paper, that some of the parties concerned in the Mark Lane Express had been practically concerned in agriculture, to them then I appeal for the truth of the following observations:—If a man occupies a farm purely arable, or two-thirds of which shall be arable, he cannot continue to cultivate it, unless he returns four rents, if therefore, you were to reduce the existing rents one-third, you would only diminish the outgoings of the farmer one *twelfth*. Now Sir, I would ask any man occupying such a farm, whether a reduction of one-twelfth of his expenditure would make the balance of his account a favourable one? Thus it appears, that a reduction of one-third of the present rents would be of no avail in redressing the grievances of the arable farmer, and even you Sir, I think, will admit that such a reduction is wholly impracticable. I am most ready to admit that Mr. Knight is a very good landlord, and I have no doubt there are hundreds of others as good as he, only they may not have trumpeted their own fame quite so loudly; but it must be borne in mind, that Mr. Knight is placed in peculiarly favourable circumstances as to his property, he received his estate late in life when his habits were formed, from an elder brother, who was a bachelor, consequently it descended to him unincumbered by jointure or by raising money to pay the fortunes of younger children, consequently he has it in his power to do more for his tenants than those landlords can, whose estates are encumbered and who have a family of younger sons to educate and put out into the world. I have no doubt that if even the ineffectual reduction I before mentioned of one-third of the rent was to take place, it would in two or three years place one-third of the landed property in the hands of money lenders; and the farmers must not expect that these men, who are total strangers to them and who have only taken their estates as security for money advanced by them, will make better landlords, than those who have been brought up with them from their infancy and whose fathers have, perhaps, sustained the relative situations of landlord and tenant for years. I am convinced that any reduction of rent, adequate to the altered price of agricultural produce, is perfectly chimerical and impracticable; but supposing for the sake of argument that it were practicable, who would be the losers by the alteration? In this case the gentlemen of landed property must lower their establishments, must discharge their servants, lay down their carriages and diminish their expenditure in every way, the loss of which would fall most heavily upon the merchant, the manufacturer, and the tradesman. If rent is to be lowered the price of every article in common use

must be lowered also, and this will so reduce every body's income, that if the interest on the national debt is to remain the same, it would absorb so large a portion of the general income as to render it impossible to collect it. I am convinced in my own mind that the only effectual mode of relieving the distresses of the farmer is either by raising the national income to something like what it was when the debt was created, or by reducing the interest of the debt so as to bear a fair proportion to the altered money value of agricultural produce. As the latter plan would probably create much opposition, and would at present be attended with much difficulty, and as I am, by no means desirous of setting up theories however fair in themselves, that are not immediately reducible to practice, I shall confine my observations to the first proposition; though I do not see any reason why the interest of the debt should not be reduced; the greater part of it was funded at or about fifty and that paid in depreciated paper, so that the public did not, in fact, receive more than thirty-five pounds in gold for every hundred for which we are now called upon to pay three per cent. or about seven per cent. interest on the money actually received. As money can now be borrowed at three and a half, I do not see why the public creditor should be better off than the rest of the monied interest. But this is by the bye; as I said before it will be better to address ourselves to the more practicable plan of raising the national income. I proposed last sessions to the members of the present government, that instead of increasing the already overgrown national debt, by raising a loan of twenty millions to pay the West India merchants for the emancipation of their slaves, the lords of the treasury should issue that amount in one pound notes which should be made a legal tender for all taxes and duties payable to government, and that country bankers should be allowed to give them in exchange for their five pound notes. If this plan had been adopted I have no doubt the situation of the farmer would already have been very different from what it now is, as it would have enabled the country banker to have made advances to the farmer by means of which he would have been empowered to withhold his produce from a glutted market, and thus have prevented that ruinous depression in price, at which, under existing circumstances, he has been obliged to dispose of it. Besides this advantage, government would have paid six hundred thousand a year interest on this twenty millions, which might have been applied to the reduction of such taxes as pressed most heavily on the farmer; such as the remainder of the county rates, the statute duty, &c. This measure was free from all the objections urged against an unlimited issue of one pound notes by country bankers, as the holders would have had the same security for them as they have for the funded property. That opportunity, however, is gone by; the Chancellor of the Exchequer did not choose to adopt my plan, nor did he condescend to assign any reason for rejecting it. The same object may yet be obtained by the treasury issuing one pound notes instead of exchequer bills, by which the interest would be saved. To explain the whole advantage of this measure, I find would extend my letter far beyond the bounds which a newspaper correspondent has any right to occupy in your columns. I will, therefore, content myself for the present with merely throwing out the hint, which others may improve upon, and conclude my letter after having made one observation on your leading article last Monday. You congratulate the Scotch farmers on their prosperity, which you attribute to their superior skill.

Do you mean to assert that the land in Scotland is better farmed than it is in Essex, Norfolk, or the Isle of Thanet? I think it would be more fair to ascribe it to the only advantage which they possess over the English farmer, namely, to a small note circulation, it is very extraordinary that if one pound notes are so prejudicial to the national welfare, that the shrewd and sagacious Scotch should have resisted their annihilation in that country so strenuously, that Sir Robert Peel dared not urge the matter further, for fear of losing his bill. As I have already trespassed too far upon your columns, I will only add that I remain,

Your obedient servant,

J. R. SMYTHIES.

### ARCHBISHOP WHATELY'S PLAN FOR SETTLING THE TITHE QUESTION.

A correspondent writing on this subject, after cautioning the Conservative party against interposing "visionary and speculative obstacles to any measure (from whatever quarter it may come) by which the substantial and tangible evils of the existing state of things may be remedied," proceeds to say—"If tithe be commuted into land-tax, and if this land tax be bought up by the state from the church, the money paid will be as much the absolute, independent, and intangible possession of the church as any other ecclesiastical property it has ever held: and if this money be afterwards expended in the purchase of land, that land will be as much the independent estate and possession of the purchasers (namely, the church, through its acting body, the commissioners), as any college estate, house, rent, manorial right, or other hereditament. The whole gist of the proposed measure is this.—Will capital be forthcoming, to realize the benefits proposed by the Archbishop's plan? If it be not, such matters will be employment for tongue and pen for half the session, and there an end. But if the resolution be evinced to cut the Gordian knot by the only possible means, viz.—money, then the Archbishop's labours may effect the redemption of the Irish clergy, and the peace of their country."

### PROPOSAL FOR ESTIMATING THE RENT OF LAND BY THE MARKET PRICE OF WHEAT.

In making this estimate, the following particulars must be accurately ascertained:—The quality of the land, and its state of cultivation. Whether it has on it all necessary buildings. Whether titheable or tithe free. The annual amount that it pays for parochial rates. The distance that the land is from the market where its produce is to be sold; and what price per bushel may reasonably be expected for wheat—which, in the long run, governs the price of all grain, and of meat too. Therefore, as the price of wheat rises or falls, so does the actual value of the rent of land. The value of rent for the different qualities of land will vary from two to six bushels per acre—the regulating price to be annually that which has been the average price of a market agreed on for the past year. Supposing it is agreed that 7s per bushel may be expected, the rent of the different qualities of land may be thus calculated:—

Very poor land.....	2 bushels..	14s. per acre
Poor.....	3 ditto....	21s. ..
Fair quality.....	4 ditto....	28s. ..
Very good .....	5 ditto....	35s. ..
Extraordinarily good	6 ditto....	42s. ..

The intermediate qualities may be raised by the corresponding fractional parts of a bushel: thus—a medium quality, between fair and very good,  $4\frac{1}{2}$  bushels, 31s. 6d. per acre; approaching nearer to very good,  $4\frac{3}{4}$  bushels, 33s. 3d. per acre. This method of estimating the rent of land may appear complicated and troublesome, and therefore I do not expect to hear that many farms will be let in this way, although I believe it to be the fairest between landlord and tenant. Some years ago, a great portion of the stewards of landed proprietors were composed of lawyers, land surveyors, and others, who knew little or nothing of the real quality of land, or the proper cultivation of it. All the object in view of such stewards was to increase the rental of their employers; on which increase it was then a common practice for them to receive a commission; so that industrious tenants under their controul, whose farms appeared neat, were liable to have their rents raised; and the crafty, or negligent, whose farms appeared unsightly, theirs not raised, but perhaps lowered, which is exactly the reverse of what just stewards between landlords and tenants ought at all times to do.

Some years ago, I proposed a commutation of tithes to be made out by the same mode as I proposed for estimating rents, and I still think that a fairer plan cannot be adopted; every farm in the parish being valued according to the quality of the land, and not according to its state of cultivation. Suppose a farm of 200 acres, 100 arable and 100 pasture, coming under the description of very good land, if tithe free, and only moderately burdened with poor, the rent should be equal to the value of five bushels of wheat per acre; if the average price was 7s. per bushel, the rent would be 35s. per acre. Take one-fifth of the arable and one-ninth of the pasture, thus:—100 acres arable, 500 bushels—one-fifth, 100 bushels; for the pasture, one ninth,  $35\frac{1}{2}$  together,  $155\frac{1}{2}$  bushels, at 7s. per bushel, £54. 8s. 6d. per ann.—about 5s. 5d. per acre. In May, 1835, I printed all the particulars of my plan for a commutation and redemption of tithes; having several copies left, one is at the service of any person interested in tithes.

I cannot refrain from inserting here a question in figures, which I have found many were not aware of. Suppose a parish, going to be enclosed, containing 2000 acres, 1000 arable, 1000 pasture, the tithe-owner claiming one-fifth of the arable, and one-ninth of the pasture; I have found that most to whom I have stated this, have thought, as the quantities were equal, that if one-seventh of the whole were taken, it would be the same as taking a fifth and a ninth; which it is not, as thus:—One-fifth of 1000 is 200; one-ninth of 1000, 111 one-ninth; together, 311 one-ninth—one-seventh of 2000, is 285 five-sevenths—difference, 24 acres and about a half.

It has often been asserted in the House of Commons, and elsewhere, that permanent low prices of corn would not affect the farmers, that landlords only would be affected by it, for they must lower their rents; this I trust I shall be able to prove by the following statement to be a most mistaken notion.

A Summary Calculation of the Value of the Produce of Farms, of different descriptions of land, with Wheat at seven, six, and five shillings per bushel; the prices of other grain in proportion; the profit arising from Cattle, Sheep, Pigs, and Poultry; the amount of Rent and Expenses; and the Occupiers' Incomes. Also supposing that each farm was tithe-

able, the amount to be paid per acre and per annum according to my mode of estimating the Value of Tithes—

2000 Same farm 2000 180	Number of Acres, tithe-free.		Quality.	Wheat at 7s. per bushel.		Wheat at 6s. per bushel.		Wheat at 5s. per bushel.		Occupiers loss of income with reduction of rent, wheat being reduced from 7s to 5s per bushel.	If the farms were titheable, and wheat 6s. per bushel, the tithe would be.			
	Arable.	Pasture.		Rent per acre.	Whole Rent.	Value of Produce & Profit of Stock.	Amount of Expense.	Occupier's Income.	Rent per acre.			Amount of Rent.	Value of Produce & Profit of Stock.	Expenses.
2000 150	50		Poor Clay.....	s. d. £.	s. £.	s. £.	s. £.	s. £.	s. £.	s. £.	s. £.	s. £.	13	21
2100 200	10		Poor Sand.....	14 0 157	708 450	9 0 113	7 612 407	4 8 46	13 515	0 365	100	5	5	100
2000 180	20		Clay.....	15 0 250	756 415	10 133	8 464 382	5 1 25	10 523	0 305	145	38	24	19
2000 180	20		Sand.....	25 0 250	838 470	0 138	18 9 187	10 0 105	0 654 382	0 167	103	29	40	0
2000 160	40		Good Clay.....	25 0 250	0 1006 530	0 226	9 187 10	7 48 7	10 202	12	56	38	40	0
2000 180	20		Good Turnip Land.....	31 6 315	0 1079 520	0 244	27 0 270	0 943 480	0 183	22	114	107	49	4
2000 180	20		Very superior Turnip Land.....	35 0 350	0 1102 525	0 227	30 0 300	0 962 483	0 181	25	142	107	57	10
2000 Same farm	20		(four course system)	35 0 350	0 1193 545	0 248	30 0 300	0 1037 502	0 225	25	142	107	57	10
2000 180	20		Very superior Turnip Land.....	42 0 420	0 1300 555	0 334	30 0 300	0 1138 512	0 266	30	144	109	68	15

At present, other grain is not fallen in proportion

to the low price of wheat; but I feel convinced that it must come down to the prices in these calculations, should the average price of wheat be five shillings per bushel for two years from this time, December, 1835.

In the above statement, the whole amount of value of the produce of each farm is calculated; and therefore, if the occupiers consume in their families, corn or meat, or corn by any other horses than one to ride to market, or cart horses, the value of such corn or meat must be considered as part of their incomes; which, according to my calculations, will be on poor clay farms, (with my lowest valuation of produce,) not more than sufficient to feed, and plainly clothe, their families, or to give their children a better, if so good an education, as all charity children now have. The occupiers of good turrip, or good grazing land, need not despair of getting, with industry and good management, and good judgment of stock, a comfortable maintenance; for the demand for grain and meat must ever continue, both of which they can produce at less expense than the occupiers of poor land.

The produce of a poor clay arable land farm, and the profit of the stock kept upon it, ought to amount to seven rents, as thus:—one for the landlord; four and a quarter expenses; and one and three quarters for the tenant's maintenance. On a poor sand farm, where the expenses are less, six and a quarter will do. On fair clay land, four and a quarter: one landlord; two and a quarter expenses; one tenant. On good turnip land, three and a half: one landlord; one and three quarters expenses; three quarters tenant. There is a difference of opinion as to the size that farms ought to be: most, who consider the question as it regards the public interest, are against large farms; believing that there is not a proportionably equal number of labourers kept on large farms, as there is on moderate sized ones; besides which, it is argued that two farmers' families might be maintained where there is only one. Perhaps there are not, on the generality of farms of five hundred acres, double the number of labourers employed as there are on farms of two hundred and fifty acres. As the question regards landlords and tenants, the size of farms must depend on the nature of the soils, the parts of the country in which the farms are situated, and the competency of the tenants; for landlords cannot be expected to let large farms to tenants with small capital.

Some years ago, a talented, but over-zealous advocate, injured the agricultural cause, by proposing that there should be a duty of forty shillings per quarter on the importation of foreign wheat; this certainly was a most unreasonable proposition. I was, from the first, quite satisfied with the present scale of duties, although I felt sure it was a protection against importation, to fifty six shillings per quarter only, instead of sixty, as it was intended to be.

Taking into consideration the large supplies that must come from Ireland, even if the condition of the lower orders should be so improved that they shall consume double the quantity of wheat they now do; for whilst their condition is improving, they will so improve the cultivation of the land, as greatly to increase its produce; the increased supply from the effective draining of the fens of this country; the lessening the demand for wheat from the labourer's allotment system, which has increased the consumption of potatoes in labourers' families, and decreased the consumption of bread: under all these circumstances, without there should be in some year a general failure of the crop, or the country be involved in war, or until there is a very great increase

of the population, the average price of wheat in this country must be low, and consequently low rents must be submitted to.

Low prices for agricultural produce will certainly be beneficial to some classes; but the question is, will low prices, with our high taxation, be for the general good? I think not; for the lower the value of the produce of the soil, the higher in reality it makes the amount of the national debt, and thus adds to the weight of taxation upon that class which pays so great a portion of the interest of it. If the incomes of landlords are to be so reduced by their rents being lowered to correspond with wheat at five shillings per bushel, and tenants are not able to get more than a bare subsistence, the manufacturers must find the demand for their goods very materially lessened. Whether, with such low prices of produce, and consequently such a reduced circulation of money, a sufficient amount of taxes can be raised to continue paying, for any length of time, the full amount of interest of our enormous national debt, I leave to the consideration of those who are competent to form a more correct opinion on the subject than I am.

I attended the great agricultural meeting in London on the 15th December 1835, where, as I expected, I heard nothing satisfactory how agriculture could be relieved by any legislative enactments.

Some newspapers are continually giving statements of the comparative prices of wheat in England and on the continent. It is not the price of food in any country that proves whether it is cheap or dear, the proof is the relative value which the wages of the labouring classes bear to it. The prosperity of a country, the contentment, comfort and happiness of its labouring classes, is not to be estimated by the low price of food.

For twenty years have I continually, in different publications, been soliciting the Government to take off the burthen from the occupiers of land from duty on the turnpike roads; to reduce county rates, and to do away with the law of settlement by servitude; this having been done, and a general amendment of the poor laws, all the relief which the legislature can now give to the present agricultural distress, is, to enact laws for a commutation, or, if practical, a redemption of tithes; to establish poor laws in Ireland; and when the finances of the country will admit of it, to take off the duty on malt, but to lay an additional duty on distillation, to prevent Gin from being cheaper than it is at present. Could these things be done, rents might be lowered to correspond with wheat at six shillings per bushel, and farmers might be able to get a fair maintenance; but not at five, for situated as this country is, labour, and other expenses, cannot be reduced in proportion to such low price of wheat.

Agriculture would be benefited if landowners would live more in the country instead of living and spending the chief part of their incomes in our overgrown metropolis, or fashionable watering places, and if they would not fancy that every thing they want in the country, except bread and meat, must (to be good) come from London. Were there more of the Old English Gentlemen now in existence there would be more of the old English contented peasantry. And if landlords would request their tenants to take farming men and boys into their families as they formerly used, it would bring up the rising generation of the peasantry to more orderly habits, and in a very great degree prevent that great source of evil amongst them, improvident early marriages. The youth of agricultural parishes have of late years been under no control after six o'clock in the evening; consequently from an unrestricted intercourse

with the young females of the parish, the greater part of them have been obliged to marry; and thus, in the agricultural population, the chief part of the marriages of late years have not been of men and women, but of boys and girls. A very great portion of our National Debt was contracted by expenses incurred in a long war for the protection of property; it is not fair, therefore, that persons should evade paying by taxes their just share of those expenses by living and spending their incomes in a foreign country.

About eighteen months ago I printed and gave away one hundred and fifty copies of a Summary of Practical Farming. Having been requested by many persons to re-print my little work, I have made many additions to it, have sent it to the printer's, and expect that it will be at Ridgway and Sons, Piccadilly, London, the beginning of next month. Believing that the present agricultural distress will be brought under the consideration of Parliament immediately on its assembling, I have had some copies of the concluding part of my little pamphlet struck off to enclose to some Members of both Houses of Parliament, thinking it possible that it may afford them some useful information.

C. HILLYARD,

President of the Northamptonshire Farming and Grazing Society,

(Established 1819, for the encouragement of good ploughing, good shepherding, and for the general good conduct of farming labourers.)

*Thorpelands, near Northampton, Jan. 1836.*

## UPTON'S STEAM PLOUGH AND LOCOMOTIVE CARRIAGE.

This Steam Plough is worked by Upton's Patent Lever Steam Engine, and his Air Furnace Boiler. If a single-shared plough, the space occupied by the entire machine will be four feet by ten feet; if for trench ploughing the dimensions will be the same; if for ploughing two, three, or more parallel furrows at once, then the breadth and length will be about five feet by twelve feet.

The work done by the trenching plough will be equal to any spade husbandry; and that by the parallel shares will be found very superior to any horse ploughing; inasmuch as the ground will not be trodden and rammed down by horses' feet; and as the steerer, or ploughman, &c. will ride on the machine, the land will be left as open and light as possible, and resemble that of garden culture. To the steam plough, a harrow, drill, and seed box, can be attached when requisite, and the entire operation performed at once going, when it is for the last ploughing, without trampling the soil.

The spots left in the angles of the field by Upton's Steam Plough will be smaller than by any horse plough, as the steam plough will turn, if a single share, in thrice the breadth and length of a common wheelbarrow; and if a three shared plough, it will turn in the space of a small one-horse cart. The simplicity of construction, and small number of parts composing this steam engine and boiler, and the great safety and security of the latter, will prevent the necessity of frequent or expensive repairs, as the only parts of the apparatus most liable to wear and tear are the plough-shares, the soles, coulter, and harrow tines, which will only require the same repairs as if drawn by horses.

The engine and its boiler are calculated to last a considerable time before any repairs could be wanted, unless from accident or unfair usage; and whenever from long use, very much worn, if the boiler were to burst, it could only extinguish its own fire without injury to any person close to it.

The plough will require one steady man to direct or steer it, and a tractable boy to attend the fire and turn the steam off and on occasionally, the engine being of the most simple and efficient construction. The water tank will require replenishing now and then, and perhaps fuel will be required two or three times in the course of the day, and the boiler is admirably constructed for burning either wood, peat, or coke; or coal may be used.

The single plough is calculated to do two acres per day, and as the person will not be fatigued by walking over the rough ground, nor have any horses to rub down and feed after coming home from the field, they could remain out a longer time.

The double plough would do four acres, and the three-shared plough would do about six acres per day. The counter, or trench plough, would do about two acres per day; but as it would be equal in power to the double shared plough, it would require the same quantity of fuel and expense.

The land cultivated by this plough would doubtless be found from its efficiency to produce crops nearly, if not quite, equal to spade husbandry, and it would in such case pay for the steamer the first season.

As to the expense there would be required one good steady ploughman, who never ought to receive less than 2s 6d per day; and a tractable boy or lad, as fireman, at 1s per day, as under:—

	s d
One Man, per day...	2 6
„ Boy, do.....	1 0
	3 6

If coke is used as fuel, the single plough would require about 12 bushels per day, which at 6d, the London price, is... 6 0

Ploughing two acres per day, at 4s 9d is.. 9 6

Now it will appear manifest, that if two acres can be ploughed per day, with a single shared plough, for 9s 6d, six acres per day could be ploughed at a cheaper rate in proportion, inasmuch as there would only be the same number of people employed as before:—

Thus, Wages per day, as before.....	3 6
Fuel do do 3s per acre.....	18 0
	21 6

Ploughing six acres per day, at 3s 7d is £1 1 6

As the ground would not be trodden and rammed by horses or men in the various operations of ploughing, harrowing, sowing, &c. there can be no doubt that superior crops would be obtained; and in some soils deep ploughing is very beneficial, which could be done by steam better than by horses, for steam never tires; and as for treading the ground, it is generally very detrimental; for it is frequently observed, that in some soils, where ever a horse's foot hole is left, corn seldom thrives so well, and in many instances in retentive land and cold seasons, perishes.

The expense of ploughing with horses may be considered as under, assuming the average team of 3 horses:—

Cost per day.....	5 0
One Ploughman, per day.....	2 6
One Driver.....	1 0
	8 6
Total cost for one acre.....	8 6
By Steam.....	3 7

Difference per acre by steam, and better work done..... 4 11

The locomotive engine is so contrived, that the ploughs can be detached from it, and sent away to the fold yard, where a common dung cart ready loaded may be taken by it to the field. The steerer may then tilt this cart in the usual manner, and draw out as much manure to form one or as many heaps as he pleases, or tip and shoot the residue, or the whole load at once, if required. The steersman can then take back the empty cart at a quick pace, and fetch another loaded one if wanted.

With regard to the expense of hauling manure:—Suppose the average distance is one-third of a mile out and one-third of a mile back, and that the time taken up in tipping the load and exchanging carts would be equal to one-third of a mile more, making one mile in time and distance per load. Now as some teams do regularly twenty miles of ground per day, when hauling on the road, and twenty loads per acre are used by many at a dressing, it would amount to twenty loads or one acre per day, at only two miles per hour, average time for one team, therefore say—

	s d
Team per day.....	5 0
One man to drive and tip... 2 6	2 6

By horses per day, per acre. 7 6

The steam engine, if the ground be not very hilly, would go at four miles per hour, or forty loads per day, which at the same per day for man, boy, and fuel, comes to 9s 6d, the half of which is, per acre, as before shown, 4s 9d.

The locomotive engine would take the carts &c. loaded with produce to market, at four miles or more per hour; and might be so modified by further improvements as to be made subservient to many of the farmer's wants. It might, perhaps, be available for the cutting of roots and fodder for stall-fed, and other cattle; for threshing, winnowing, grinding corn, and pumping water, &c. &c.

In case of the last ploughing, when it is intended to sow and harrow in the seed at once going, the same power would effect the whole work, only requiring the aid of the boy, who must otherwise be engaged in driving the harrow horses, but which horse labour, and horse injury done to the soil would be done away with, and a further saving per acre effected by the steamer.

The additional boy at the steam harrow would be required to lift up the harrow occasionally, and take up the weeds, and put them in a basket hung to the machine, until arrived at the headland where a spare cart might be placed to receive them, and which the engine would take out of the field every evening, or as many times per day as necessary. As to the quantity and quality of work which such a steam engine would do when compared with animal power; assume a regular breadth for the furrow slice of eight inches, and from four to nine inches deep, according to the tenacity and stony qualities of the soil. At the above breadth, but at less depth, a horse plough would make as many bouts per acre as would amount to twelve miles and a half, exclusive of ridgings and balks. The steamer would go twice as fast, and being

more easily managed and controlled than horses, would not be so liable to get out of line, and would, I think, do the work better; besides not having the fatigue of walking.

Some idea of the saving to be effected by Upton's steam plough may be obtained by the following calculation for a farm of 200 acres:—

	s.	d.	£	s.	d.
200 acres per ann. once over			per		
at .....	3	7	acre	35	16
150 ditto and harrowing again					
2nd time .....	3	7	..	26	17
150 acres, and harrowing and seeding again, 3rd time ...	3	7	..	26	17
50 acres fallow, 3rd time ...	3	7	..	8	19
60 do. hauling manure.....	4	9	..	14	5
60 days ditto to market .....	6	10	..	20	10
30 days harvesting (long days)	10	0	..	15	0
90 half days, equal to 45 days, cutting fodder, &c.....	4	8	..	10	10

Cost for ploughing alone about  
15s 10½d per acre ..... £158 15 10

Now to compare this with horse ploughing, 200 acres, all arable land, would require ten horses for tillage, with four men and two boys per annum, if the land is to be well worked and kept going, besides other hands for occasional work.

	£	s.	d.	£	s.	d.
Therefore 10 horses kept at 20d. per day each, is per annum .....	304	3	4			
Ditto wear and tear of harness and shoeing per annum .....	45	16	8			

Four good men and two boys, as before ..... 218 8 0

By Upton's steamer, the expense of tilling 200 acres would be as before stated..... 158 15 10

To which may be added one additional man and a boy, all the year round, at same wages as before .. 57 5 0

And one pair of oxen, for furrowing, ridging, and carthing-up, and sundry other purposes, at 20s. per week the pair..... 52 0 0

Saving in the tillage of 200 acres of arable land, per annum..... } 300 7 2

Say purchase of 10 horses, for 200 acres arable land £ at £25 each....	250	Purchase of one of Upton's Locomotive steam ploughs, with 2 shares	
Do. for harness, plough-gearing, and for ploughs, harrows, &c....	100		
	£350		£350

It was stated by Dr. Parry, at Bath, that England alone contains 29,000,000 of acres of cultivated land; and for the sake of showing how steam would benefit the agriculturist, by placing him on a

par with the manufacturer, it may not be unreasonable to assume that 20,000,000 of acres are now under cultivation by the plough; and apportioning 20 acres of arable land as the labour of each horse, with the accompanying number of attendants the following calculation exhibits nearly the exact difference between horse and steam ploughing:—

20,000,000 acres ploughed by horses, at £568 8s for 200 acres, will be about £2 16s 10d per acre, or, in round numbers.....	£56,833,333
Deduct for variation of soil and circumstances, one-third .....	18,944,441

Total cost by horse-ploughing 20,000,000 acres, averaging about 37s 11d per acre ..... £37,888,889

The same ploughed by steam, at £268 0s 10d for 200 acres, will be about £1 6s 9½d per acre, without any abatement for variation as above, or for 20,000,000 acres, in round numbers, is .. 26,791,266

Total saving on 20,000,000 of acres by steam ploughing, at least..... £11,097,223

N. B.—Price of two-share plough, £350; price of three-share ditto, £450.

### TO FARMERS AND THEIR LANDLORDS.

For the *Shrewsbury Chronicle*.

MR. EDITOR,—Allow me through the medium of your paper to offer a few hints for the consideration of the committee of the Shrewsbury Agricultural Association, and the respectable body of farmers in this county. At recent meetings much was said on the causes of agricultural distress—much altercation took place as to its origin—and many remedies were suggested; but after all their talk, the force of the poet's lamentation is felt—

“Truth would they teach to save a sinking land,  
All shun, none aid you, and few understand.”

Now, farmers, you well know it is proverbial, that “actions speak louder than words.” I am about to suggest to you something to be done. Methinks in times like these, every likely means ought to be used to save those who cultivate the land from utter ruin; and I cannot help thinking that the plan I shall propose will, if carried into execution, have a beneficial effect on the agricultural interest generally.

Should not endeavours be made to establish a periodical show of Live Stock, Implements, Ploughing Matches, &c. in this county? The meetings for the above purposes may be connected with the Agricultural Association now formed, or be independent of it, as may be deemed expedient. It will be said, of what use can be Agricultural Shows to relieve the farmer? In reply, I say, they will exert a beneficial influence on the farming interests—

First—By encouraging improvements. If the breeds of Cattle were improved, and the land better cultivated, the farmer would have superior stock to bring to market, and obtain larger crops and of better

quality. It is well known GOOD ARTICLES will command purchasers, even in bad times.

Second—By rousing a spirit of emulation among the agriculturists. There is nothing like *stimulus* in furthering improvement in any art or science.

I am aware a great deal of prejudice exists in the minds of farmers, generally, as to any new plan or system; and that they are too fondly attached to the modes of farming practised by their fathers and grandfathers. But it is becoming pretty well known, OLD FASHIONED FARMING WILL NOT PAY PRESENT RENTS. Nothing, in my humble opinion, would tend so much to remove prejudice as periodical meetings, when farmers would assemble, and have an opportunity of seeing with their eyes, what they would not believe from hearsay. Here a knowledge of each other's plans may be obtained; and means which have been successful to their respective ends ought to be communicated. I recollect when the Shropshire Agricultural Show was discontinued, that it was said to be an exhibition that opened the gentlemen's eyes too much; but as I am not aware of any particular secret in farming, my deliberate conviction is (and I speak advisedly) that the gentlemen's eyes need opening YET still more. Those landlords who farm a portion of their own estate, are the most ready to meet the exigencies of the times; and others who have pursued farming for amusement or speculation, are giving up their farms, finding it to be a losing concern. At an agricultural meeting a short time since, Lord Stanley is reported to have said, "that farmers must look for the relief of the agricultural interest to their landlords, and not to anything that can be done in parliament."

Farmers! if this be true, it becomes you to look to yourselves. Let your mottos be, "Temperance, Industry, and Economy," and use every means *direct* and *indirect*, that are likely to influence Agricultural prosperity. Should this letter be responded to, and the proposed plan approved, I intend to elicit the attention of landlords and gentlemen to the subject. I have thought it best to address the farmers first, in the hope of ascertaining their feelings with regard to the measure. The landlords have professed themselves willing to assist you, and I believe their professions to be sincere, and I have no doubt, the gentlemen of Shropshire will come forward to raise a fund when the objects are fully considered. I beg to apologise, Mr. Editor, for trespassing so far on your columns, and remain,

Your obedient servant,

A WELL-WISHER TO THE FARMER.

January 11.

The *Journal du Commerce* gives a curious table of the increase of the consumption of sugar during the last few years.

	Colonial Sugar.	Beet root Sugar.	Total.
1828	61,255,232 ..	4,000,000 ..	65,255,232
1831	67,542,792 ..	10,000,000 ..	77,542,792
1832	62,669,638 ..	15,000,000 ..	77,669,638
1834	66,251,481 ..	20,000,000 ..	86,951,481
1834	69,000,000 ..	30,000,000 ..	99,000,000

The average annual consumption by the French colonies of articles imported into them from France is calculated at about 50,000,000*of.*, divided as follows:—Wines and liquors, 6,000,000*of.*; oils, 2,400,000*of.*; jewellery, 500,000*of.*; paper in a variety of shapes, 500,000*of.*; pottery and glass, 500,000*of.*; skins in a variety of shapes, 2,500,000*of.*; iron ware, 1,600,000*of.*; cotton, thread, silk, woollen, and felt manufactures, 20,000,000*of.*; grain and flour, 3,000,000*of.*; and miscellaneous articles, 13,000,000*of.*—*Galvani's Messenger.*

## PALSY IN CATTLE.

LECTURE BY MR. YOUATT.

(From the *Veterinarian.*)

If, gentlemen, you should hereafter practise on the diseases of cattle as I imagine and hope is your intention, you will meet with plenty of cases of palsy: few or none of them however, will be referrible to any cerebral influence or cause, and I am not aware that the records of veterinary medicine will afford one case of hemiplegia in these animals. You will not be surprised at this, when you recollect the distinction which I endeavoured to draw, in the last lecture, between the prevalent causes of hemiplegia and paraplegia—palsy of one side and one extremity of the frame—or, in other words, disease of one or both of the motor columns: the first produced by some change in the structure or functions of the brain—the latter referrible to injury of the spinal chord.

WHY NOT HEMIPLEGIA IN CATTLE?—Comparing the average weight of the ox with that of the horse, the brain of the former is not more than one-half so large as that of the latter; but the medulla oblongata of the former is larger than this origin of the spinal chord in the latter, and the relative increase of bulk in the ox is, agreeably to the destiny of that animal, made up of evidently greater development of the lateral portions of the superior (posterior) superficies of the part—that portion of it which is devoted to the involuntary and never-ceasing movements of organic life. If we next proceed to compare the spinal chord of these two animals, we shall find that the breadth of that of the ox is somewhat smaller than in the horse; and that the difference consists in the lesser development of the motor columns on the inferior (anterior) superficies of the chord. If, then, in the horse, comparatively few cases of hemiplegia occur, we can readily imagine that they will be rarer still, or perhaps altogether absent in the ox.

THE DIFFERENT CAUSES OF PALSY IN THE OX.—The ox is comparatively little affected by the usual exciting causes of palsy in the horse. Neither the rapid nor the violent exertions of the muscular system are required from him, to which the horse is often doomed; and from mechanical injuries arising from falls or cruel blows, he is in a manner exempt; but he is liable to the influence of other causes, and of one more than all the rest,—too frequent exposure to cold and moisture.

SYMPTOMS.—I will suppose you to be hereafter settled in a low, marshy, woody country. Early in the spring, and late in the autumn, and at every sudden and considerable change of temperature, you will have palsy prevailing among the cattle in your neighbourhood. Sometimes the attack will be mild, and the progress of the disease slow. The animal will cease to feed—he will bow piteously—he will stand with his back hinged—he will stagger as he walks—he will almost drag his feet behind him, or the pastern will be flexed forward; it will bend to the ground, and the animal will walk upon it. The weakness will gradually increase during a day or two—he will struggle against the complaint as long as he can—the weakness will be referrible to the hind legs principally or altogether—it will shift from leg to leg, until at length he will fall, utterly unable to rise again.

At other times the attack will be more sudden; it will be so especially with milch cows that have been hosed in the winter and turned out too early in the spring. It is scarcely credible what mischief one cold sleety night will effect. The cows are



left, perhaps, apparently quite unaffected—at all events with nothing very serious the matter with them; and on the next morning five or six of them will be found *chilled*, palsied, and will continue helpless during several weeks. I knew one that did not get up for more than two months: she lay on her belly with her hind legs stretched out behind her, and had we not confined her, she would have sadly excoriated herself by travelling about the cow house in this position. She got up at last, very much emaciated; and being brought as soon as possible into tolerable plight, she was sold.

When they are once down, it is impossible to calculate how long they will bear up against the debilitating influence of the disease. The appetite will return—it will become as good as ever; and these miserable animals will drag themselves along many a yard on their chest and belly in search of food. There is a case upon record, in which a cow was cruelly kept in this state eighteen months. They become, as you may suppose, sadly excoriated; but they are much more so if they are slung; and he who is acquainted with cattle well knows that by this constant pressure on the abdomen—the elasticity of the belly which supports the enormous and heavy paunch being no longer called in to play—inflammation of the rumen will occasionally be produced, and the animal will perish sooner than it otherwise would do.

#### CONNEXION BETWEEN RHEUMATISM AND PALSY.

—But was not this rheumatism—lumbago? Very probably it was, in the first instance at least, for there is an intimate connexion between these diseases in cattle, and some other of our domesticated animals. I do not profess satisfactorily to account for this; I am merely stating the fact. The disease is often primarily rheumatism—inflammation of some of the joints; and that is necessarily connected with a great deal of pain, and lameness as the consequence of pain. To this rapidly succeeds structural derangement; the ligaments become thickened and rigid—the bursæ are loaded with a glairy fluid—the periosteum becomes thickened, and the perichondrium too, and the whole joint, is enlarged. It is still rheumatism essentially, of the stifle, the hip joint, or the lumbar vertebrae; but palsy soon associates itself with or succeeds to the complaint, and loss of nervous power follows the difficulty or pain of moving. If the limb is but little used, or can be but little used, the supply of nervous influence is gradually lessened. This is agreeable to an invariable law of nature, that the supply of vital energy is proportionate to the demand for it; it may be increased, or it will rapidly diminish, according to the changing circumstances of the part.

**DIFFERENCE BETWEEN THE CAUSES OF PALSY IN THE HORSE AND IN CATTLE.**—You have then gentlemen, a useful lesson here. Palsy in the horse was traced to injury or inflammation of the spinal chord, or certain portions of it, and that injury or inflammation producing congestion or disorganization. Palsy in cattle is generally attributable to such causes as weaken or destroy the irritability or the energy of the nervous system—the direct influence of cold and wet upon the spinal chord—or the propagation of the chilling debilitating effect from the fibrils distributed over the surface of the body to the centre of the nervous power—or the lessened demand of power, from the inability to flex and to use the limbs in consequence of rheumatism or other affections of the joints. You will see, then, the importance of these inquiries into comparative pathology: they

will provide you with interesting facts on which your practice may be securely based, and guard you against the false analogies by which you might otherwise be led astray. We shall have sufficient proof of this as we go on.

**FURTHER DESCRIPTION OF PALSY IN CATTLE.**—There are two periods in the life of the cow when she is more than usually subject to these paralytic attacks, and when they are, most of all, severe and likely to be fatal. The poor beast, not strong in health, is left in some exposed part of the farm until within a few days of her expected time of calving, or, perhaps, she is not taken in at all. The pains of labour come upon her—the cold blast blows over her, and she is in that state of excitation and yet of general debility which accompanies parturition. She becomes suddenly palsied—at least the parts nearest to those concerned in parturition yield to the ungenial influence to which they are exposed. I will not say that the uterus loses its power, but the animal is unable to assist its contractions by any voluntary effort; and the progress of the labour is delayed, completely arrested, and the calf or the mother, or both, are sacrificed.

Again:—she has got through her calving, but she experiences that relaxation and debility to which, to a greater or less degree, our artificial treatment has subjected our domesticated animals, and, in this state, she is left quite exposed to the pitiless blast; or she is not so well taken care of as she should be, or she has been suffered before her time of parturition, to attain a dangerous state of condition and plethora, and she too becomes suddenly palsied—“she drops after calving.” She has altogether lost the use of her hind extremities; and there she lies for ten days or a fortnight, before our remedial treatment restores to her the power of moving, or there perhaps she lies never to rise again.

Dr. Powell relates a case of palsy in the human being, which well illustrates the usual character of the same disease in cattle. “A watchman on quitting his duty after a night of severe cold, was attacked by sudden and violent general pains in his limbs, which soon departed, and left him in a state of universal palsy of the muscles of voluntary motion. He had lost all command over the muscles of his limbs or trunk. His circulation was not affected in any cognizable degree, and his mind retained its usual powers. All proper remedies were tried, but he died.”

**PALSY IN CALVES.**—Calves, if they are turned out too soon at weaning time, and young stock generally, if thoughtlessly and cruelly exposed to the inclemency of the weather, are very subject to palsy. It begins with gradual loss of appetite; stiffness of the limbs; difficulty of walking; pain at every motion, expressed by plaintive lowings; trembling of the loins and hind legs; tenderness of the loins, the animals shrinking under the least pressure on the part; at length (unless they have been removed to some comfortable shelter, and otherwise properly attended to) they fall totally helpless, or they drag their hind limbs along, and rapidly pine away and die.

**CAUSES CONTINUED. TAIL SLIP.**—Some singular causes of this disease have been assigned, and among the rest that supposed origin of almost every ailment of cattle, *tail soaked*, or *tail slip*. Professor Dick, of Edinburgh, has given a very humorous account of this. “Is there loss of appetite, of flesh, or of strength?—The tail is examined, and the disease is pronounced to be the

tail slip: is the animal hide-bound?—it is the effect of the tail slip: or has paralysis of the extremities commenced?—it is produced by the tail slip. The disease soon passes along the cow's tail to the back, and the animal loses the use of its legs."

The tail of the ox, like that of other animals, was given to him partly or principally as a defence against the attacks of the insects by which he is annoyed. It is formed like a common whip. The bones become gradually smaller towards the tip of the tail; at their termination is found a soft space, and beyond this a firm cartilaginous portion to which are attached the long hairs by means of which the flies are driven away. The bones are the handle of the whip, the soft part is the connecting medium between the handle and the thong, and the cartilaginous portion with the hairs form the lash. The country people or the country practitioners, unable to comprehend this, are frightened at the soft place which they find, and imagine that a portion of the tail has slipped from its natural situation, and that some great mischief must ensue, and, generally, loss of power in the whole spine.

**STAGNATION.**—Mr. Knowles gives a more scientific and erudite account of the matter. He calls this disease "The Crook," and says that it begins at the heart. "The heart is the cistern of the bloodvessels, and the blood being thrown too fast from the cavity of the heart into the arteries, and the arteries throwing it too fast into the veins, they become overloaded; then, when a coldness is brought on the whole frame, by cold dry winds, this disease comes on, by which the whole body is disordered, one vessel forcing another, till a stagnation is brought on." What measures these gentlemen adopt in order to remove the evil we will presently inquire; but it is time to proceed to the lesions which are found after death.

**POST-MORTEM APPEARANCES.**—We have more opportunity of observing the lesions after death in these animals than in the horse. They are mostly slaughtered while they may be of some use to the butcher, rather than left to die; but we must not say what always becomes of those to whom the disease and not the knife puts an end. There is usually inflammation both of the membranes of the spinal chord, and of the chord itself about the dorsal-lumbar, the lumbar and the sacral regions. In lingering cases I have seen decided thickening of the membranes—they have been studded with tubercles—hard concretions have been found upon them, and at some point or other the membranes of the chord have been considerably dilated, the substance of the chord has been softened. In the cow that was paralytic eighteen months the spinal marrow belonging to the four last dorsal vertebra and the whole of the lumbar ones was softened; it was mixed with bloody decomposed matter, and surrounded by a thick yellow serosity.

Generally the affection is confined to the motor surface. The difference between the inferior (anterior) and the superior (posterior) surfaces of the chord, and of the membranes covering those surfaces, is very remarkable. Perhaps the horizontal position of the chord in the quadruped may, in some measure, account for this. In some cases however, the whole of the chord will be similarly affected. I have often inquired of the butcher, when I could get him to put confidence in me with regard to these things, and the answer I have received has been, that he does not recollect a case in which the "pith" has not been more or less af-

ected, and sometimes he has been compelled to remove it, or a part of it, from the spine, before he could expose the meat for sale.

Occasionally there is much infiltration of the muscles of the loins and thighs, with effusion of bloody fluid into the abdomen; and occasionally there are bony enlargements of the vertebræ, or scirrhus tumours attached to them, which sufficiently account for the impairment or loss of voluntary motion.

**CONSULTATION.**—Here, gentlemen, you will not forget the kind of animal you have to do with, and the destiny of that animal. Sooner or later he must find his way to the butcher, and the profit of the master depends upon the condition in which the animal reaches that bourne. It will make but the difference of a few shillings whether the horse arrives at the knacker's yard covered with flesh and fat, or reduced almost to a skeleton, and, therefore, unless the manifest sufferings of the animal warn you to desist, you protract your attendance almost to the last moment, hoping for some favourable change which may enable you to restore your patient to his owner once more fit for his service. It is a very different matter here. If the beast is in tolerable condition, it will not much concern the owner if the final disposal of him is somewhat hastened; but if the disease, as in the present case, is one that interferes not with the wholesomeness or the saleableness of the meat, it will be of considerable consequence to the proprietor, whether the patient is at once disposed of, or kept lingering on until there is little flesh left upon its bones, and that little good for nothing. You will, therefore, most carefully examine the nature of the case and the probability of a successful termination of it.

After a few years practice you will probably be able to consult your own experience in the treatment of this disease: and I will tell you what that will be—that if the progress of the disease has been slow, and you have been enabled to combat it, while the animal can still toddle about you will generally succeed; but not so soon after the palsy has been perfectly established, and the animal has been down more than two or three days. Also after a case of sudden attack if the patient has not been down longer than this time, but not so surely afterwards. Therefore with the consent, or at the request of the owner, you will see what the medical treatment of a few days will effect; but you will not prolong it if rapid emaciation is coming on, or the character of the disease and the value of the meat appears to be changing: and one thing I am sure that you will not do—you will not brutally fracture a limb in order to conceal from the butcher or the public the true cause of the lameness.

**TREATMENT. BLEEDING.**—To a considerable degree the different character of the disease in the horse and in cattle will require a different mode of treatment. There has not been so much exposure to external injury, nor will there be so much inflammation of the spine and its membranes, exciting general fever, and thus destroying the patient: but if the attack is sudden and acute, or chronic rheumatism is degenerating into palsy, there will generally be fever to a certain extent, and there will be latent inflammation, which in order to procure a successful termination, it will be necessary to subdue: therefore *bleeding* will be generally indicated. The indications of debility must be of a decisive character in order to forbid this remedial measure. If you bleed at all, you will probably abstract the vital fluid somewhat copiously. You

will not forget the golden rule, in most cases—the altered character of the pulse must be your signal for stopping the bleeding. One bleeding can rarely do harm, and it may be productive of incalculable good: it will certainly do so if there has been effusion of blood or inflammation in the spinal cord. It may do good even if there has been serous effusion, for the absorbents may be roused to do their duty; they are the secondary depletions that wear down the strength of the patient.

**PURGING.**—The animal system of nerves can rarely be seriously affected without the organic ones speedily sympathizing. There is not a more constant accompaniment of paralysis in the quadruped than constipation, and even more so in cattle than in the horse. It is exceedingly difficult to remove, and until it is removed there will not be the slightest remission of any of the symptoms. It is a remark confirmed by every day's observation, that the return of the natural action of the bowels is the first symptom, and the almost certain pledge, of returning health. Still I should be loth to administer any acrid purgative. A pound of Epsom salts, with half an ounce of ginger, should be administered after the bleeding, and with the important precaution of pouring it, by means of a long-necked bottle, or Read's patent syringe, slowly down the throat, in order that it may not acquire sufficient momentum to break through the floor of the œsophagean canal, and fall into the rumen and be lost. Smaller doses consisting of half a pound of Epsom salts and four ounces of sulphur, should after this be administered once every six hours until the bowels are opened; and the purgative effect should be for a while kept up by a repetition of the sulphur.

**AROMATICS WITH THE PURGATIVE.**—I have recommended a large dose of the aromatic with the purgative—no less than half an ounce of the powdered ginger—the best aromatic and tonic that can be administered to cattle, and here peculiarly applicable from its influence on the muscular coat of the intestines, while the power of the purgative is, perhaps, principally exhausted on the mouths of the excretory ducts, while the impulse of the aromatic is often speedily diffused over other and distant parts of the frame. In addition to this is the fact, that when the medicine from being carelessly administered, has for a while, been lost in the rumen, that half insensible viscous has at length been roused to action by the aromatic and its contents, in an unusual and unnatural way, have been propelled through the maniplus and into the abomasum, and so purgation has at length been established, and the animal saved.

I am glad that, with a little difference in the minutæ of practice, I am corroborated here by the opinion of my friend Mr. Sewell, of Brighton. He refers to the sudden chills from exposure to cold. "I have found," said he, "they laboured under great prostration of strength, with constipated bowels and fever; my practice was to give opening medicine, with, in the intervals between the physic, cordials to stimulate the stomach and induce the animal to feed, as there appeared great indifference to take food. Thick gruel was frequently given with the horn with ginger and aniseed combined. From what I have seen of cattle under disease, I think they require and will do better with cordial than the horse, when given in certain and appropriate stages of disease." These are valuable hints, and they are founded on the peculiar temperament of cattle, and the structure of

their stomachs. We should neither of us, however, go quite so far as Mr. Knowles, who gives in one dose four ounces of mithridate, two of grains of Paradise, two of flour of mustard, two of turmeric, a quart of ale, and half a pound of treacle, and all this "in order to bring heat into the small pores, and give motion to the whole of the blood vessels."

**PALSY OF THE SPHINCTERS.**—One caution, however, I would give you. I have spoken of constipation being the usual accompaniment of palsy, and the removal of that constipation the signal of the commencement of recovery: if, however, at the first attack, or during the progress of the disease, the sphincter of the rectum or the bladder should become paralyzed, and the fœces or the urine, or both, should be discharged involuntarily, the chances of recovery will be so materially lessened, that it will become your duty to advise your employer to have the patient slaughtered without delay, and while her carcass may be of any value.

You will cause a sufficient quantity of warm gruel to be frequently offered to your patient, and to be forced upon her if she will not voluntarily drink it. You will likewise cause injections of warm gruel to be frequently administered, in each of which a few ounces of Epsom salts have been dissolved, and to which a little ginger has been added. They may be useful, but from the peculiar construction of the lower and larger intestines in cattle, they cannot be so generally or so extensively serviceable as in the horse.

**APERIENTS (continued).**—Well, gentlemen, you have bled, and you have physicked, and you are continuing to stimulate the mucous coat of the intestines by the exhibition of sulphur combined with an aromatic. You will do this with much propriety during the whole course of the disease; you will possibly promote the absorption of any effused fluid either in the cerebral or spinal mass; and you will keep up a gentle and manageable counter-irritation, which cannot fail of being, to a certain degree, useful; and the action which you are exciting and keeping up in the muscular fibre of the intestines and absorbents may contribute to or prepare the way for the return of healthy action to other parts. Sulphur in cattle is like castor oil in the human being, its employment will generally be beneficial, and rarely and almost never prejudicial.

**DERIVATIVES.**—Palsy in cattle is in many instances connected with, or consequent on, or still essentially identified with rheumatism. This indicates a course of treatment which I cannot say would be altogether useless, but which would be much less efficient in the horse. Can we stimulate extensively and safely any other tissue or system? The integumental at once presents itself: it is extensive enough, and a sympathy seems to exist between it and every other system. Can we increase the insensible perspiration? If we can, we are combating the disease with powerful weapons. We are calling into action a derivative which in extent and degree of influence is unequalled. Is there any diaphoretic as it regards cattle? I believe that there is, and one on which considerable dependence may be placed. The white antimonial powder (I so designate it in distinction from the black sulphuret of antimony so much used in horse-practice,) the pulvis antimoniæ of the human practitioner, I do regard as a valuable diaphoretic in cattle:—I have generally used it in combination with opium and ginger. I have, or fancied that I have, both soothed and

roused my patient—I have lessened the morbid irritation and the pain which existed in the spinal chord or its membranes, or the muscles nearest the affected part—I have accomplished this by the influence of the sedative, while by increasing the energy of the capillary vessels of the skin, I have given an outward direction to the mischief, and have disposed the parts and the system generally to return to a state of healthy action.

**WARMTH, CLOTHING.**—There is one auxiliary here, without whose co-operation all other appliances would be powerless, and of whose influence, and almost of whose name we seem to be in a manner ignorant in the greater part of our practice on all our quadruped patients—I mean *Comfort*. I am as ardent an advocate for proper ventilation as any one can be; I want no close confined cow-house or stable, or kennel; no stationary empoisoned atmosphere: but I do want, and I demand for our patients, comfort; a comfortable habitation, a comfortable bed, comfortable clothing, and comfortable food; and from the peculiar temperament of cattle, I particularly demand it for them. I believe that, with the exception of the rot in sheep, more than half the losses of the farmer are attributable, directly or indirectly, to a neglect of this. The palsied cow—place her if it be possible on a somewhat inclined surface that her urine and her fæces may be as little as possible sources of annoyance; bed her up warmly; cloth her warmly; supply her with warm gruel; give her, but not in too great quantities, the food she likes best; turn her once or twice in the day; admit the external air in sufficient quantity to carry away every unpleasant or unwholesome effluvia, but suffer no current to blow upon her: thus you will adopt the best means to insure the effect of your internal remedies.

**EXTERNAL APPLICATIONS.**—Little dependence can be placed on most, perhaps I may more properly say on any of these, except in the early and curable stage of the disease; and then they must be thoroughly rubbed in, or they will not penetrate through the thick skin of the ox; and many a hearty rubbing with a brush or a wisp of straw, must take place over the whole of the lumbar region. Turpentine and hartshorn, and tincture of cantharides, must form the basis of your liniments. From setons I have never derived service: blisters have seldom risen well. A mustard poultice has done more good than either of them: but that on which the chief dependence is to be placed is a charge, covering completely the loins, containing the full proportion of cantharides, and from its adhesive quality continuing, for many a week, gentle and constant stimulous and warmth, and much mechanical support to the part.

**STRYCHNINE.**—The *nux vomica* and the essential principle of it have been celebrated for their power in the cure of palsy.

We should expect much from them, and especially from the strychnine; for it seems to be a point established by experiments on animals, that it exerts its especial and principal influence on the spinal marrow, acting as a stimulous: and when it has produced death, effecting it by means of inflammation and congestion of the spinal chord. Now, in affections like palsy in cattle, which would appear to proceed oftener than otherwise from the debilitating effects of cold suddenly or too habitually applied, this would be the medicine to which, probably, we should first and with the greatest confidence resort. Our continental brethren have done so, and they were successful. I will give you

the first recorded case of it: this is but common justice to M. Taiche:—

**SUCCESSFUL CASE OF THE USE OF STRYCHNINE.**—“On the 22nd of October, 1824,” says he, “a working ox lay down several times while at work, and was with considerable difficulty induced to get up again.

“On the 23d, the difficulty of rising was still greater, and he was left at home.

“On the 25th he was unable to rise.”

“On the 26th I was requested to see him. He was five years old, and of moderate size and condition. He was lying down, and it was impossible to raise him; his skin had a dry harsh feeling, and stuck to the ribs; his loins, of the ordinary temperature, were tender when pressed upon; his hind limbs retained their natural sensibility and feeling, but the power of moving them was in a manner gone. The other functions did not seem to be affected. No fracture or dislocation of the spine could be detected after the most careful examination. Three drachms of the spirit of sal ammoniac (*lipor ammoniac*) were administered, and a stimulating liniment was ordered to be rubbed into the loins. This was repeated on the 27th and 28th.

“On the 28th he was raised with great difficulty; he supported himself for a little while on his fetlocks, and when he was forced to move he went on his fetlocks. He presently fell down, and made some ineffectual attempts to rise again. The same treatment was pursued.

“*Nov. 2d.*—He was nearly in the same state. I then prepared a decoction of seven drachms of the *nux vomica*, boiled in a quart of water, and administered it to the animal.

“*3d.*—Nine drachms were given in the same way. He got up twice in the course of the day, and staggered a pace or two.

“*4th.*—He lifted himself on his hind limbs, his fore ones appearing to be weaker than ever.

“*6th.*—The countenance and appetite were good; the pulse was weak and slow; the general temperature moderate, and the sensibility of the skin natural: he made few efforts to get up but lay quietly on his litter.

“*8th.*—He got up without assistance several times, but he found that he could not walk, and quietly lay down again.

“*10th.*—He could walk a few steps, and was evidently improving.

“*15th.*—He was apparently well. I advised that he should be fattened and sold as soon as possible. He did fatten quickly and satisfactorily, and was driven to Paris.”

**UNSUCCESSFUL ONES.**—This case was imposing, and yet marvellous. Two doses only of the medicine were given, but they were enormous ones, and what we should have thought would have destroyed the patient at once.

I had a case of palsy in a cow some little time afterwards. I bled her and purged her, and then gave a decoction of six drachms of *nux vomica*. I gave it with some degree of fear and trembling, although I had read, in Orfila, that the same quantity had been given to a goat without inconvenience. It had no effect on the cow. On the next day but one I repeated the dose; that had no effect; it neither alleviated nor increased a single symptom; and the animal died two days afterwards.

I had another opportunity afterwards of putting the power of the *nux vomica* to the test. I gave three successive doses, on alternate days of an ounce

of the nut, but likewise without effect. We have not many of these cases in the vicinity of the metropolis, and therefore I have had no chance since of putting the power of the *strychnine* to the trial; and I do not know that I should attempt it had I the opportunity, unless, after a fair confession of the truth, I had the full permission of my employer, or he would sell me the animal at such a price as I could afford to give. We want some experimental farm, with a veterinary school attached to it, where these experiments, and many others on the diseases that destroy so many valuable animals, might be fully and fairly made. The private individual can scarcely be expected to consent that his property should be risked in this way; and the practitioner would not be justified in thus risking it without the consent of the owner.

**THE CURE OF TAIL-SLIP.**—I promised to tell you what means of cure were adopted by the believers in *tail-slip*. The lower part of the tail has slipped out of its place; there has been great derangement of the parts, and the mischief is extending over the whole of the spine. Well, what is done? "Why," says Professor Dick, "they cut off the cow's tail, to be sure, and thus get rid at once of the disease and the cause of it. Some, however, less cruel or more scientific, make an incision into the under surface, allow the wound to bleed freely, and then bind up the part, filling the wound with a mixture of tar and salt. But does not this often effect a cure? Why, the stimulus of the knife and the salt and the tar are no trifling matters; and if only a little is wrong with the animal, the cow at once springs upon her feet; or if much blood is allowed to escape, relief is given, as it would have been by blood drawn from any other part."

I cannot help admiring how profoundly Mr. Parkinson treats this disease. "If you take hold of the tail and turn it upwards, the end will drop down, or with your fingers you may perceive a separation of the bone. The remedy is, to cut a piece off the tail end, and let it bleed. Farriers open the tail and put in some kind of salve through ignorance, and by way of making a bill; there being no necessity for this, as I have made a cure by cutting the tail only: but ever since I have discovered the great efficacy of *chamber-lie*, in all cases I have given that, for it is a security against any farther complaint."

Well, but neither the operation nor the chamber-lie are always effectual. The extremity of the tail has not only slipped out of its place, but the animal is *bewitched*. Why, then a small piece of the rowan-tree is bound round the tail, and the cow is got up and held up by main strength; and a black cat is procured and made to pass three times round the cow's body, over her back, and under her belly. The cat mews and scratches might and main; and after having sufficiently mauled the poor patient, and frightened her out of her wits, and out of the disease too, contrives to make its escape, carrying away every ailment, real and imaginary.

Gentlemen, I will not detain you longer with this nonsense.

**REDUCTION OF BURTHENS NO RELIEF TO THE TENANT.**—It appears from a letter addressed to the Editor of the *Bucks Gazette* of Saturday last that a person of the name of Jones stated at the late meeting of the Bucks Agricultural Society that in consequence of the reduction in the poor-rate, effected by the New Law, a *certain* landlord

in a *certain* village in that county has raised his rents. We commend this to the notice of Mr. Cayley, who said a short time since, that "if prices were raised, landlords would not be so wicked as to increase their rents."

#### TO THE EDITOR OF THE MAIDSTONE GAZETTE.

Sir,—In reading your valuable paper, I was much gratified in seeing that T. Rider Esq., had deducted 20 per cent. from his tithes in Boughton, which already were exceedingly low. If you deem a striking contrast worthy a space in your next, I will furnish it. The Rev. Isaac Mossop, rector of the poor parish of Smarden, advanced his tithes for the last year, 10 per cent., and demands a further advance of 20 per cent. for the present year, whereas our late rector, at different times, deducted 25 per cent., making a difference of 55 per cent. The parish, of course, respectfully declined to comply with his ungracious demand; and the Rev. Gentleman is now taking his tenth of milk, &c. I should like to ask, Sir, which is most likely to pull the church down!

I am, Sir, your obedient servant,  
Smarden, Jan. 14, 1836. AN OLD TITHES PAYER.

#### BIRMINGHAM, 1st MONTH, 27th.

In taking a review of the Corn Trade for the past year, it will be observed that the progressive decrease in the value of Wheat (which we noticed at the end of 1834, as a remarkable feature of the preceding four years,) continued to the close of 1835, the average for December, 1834, being 41s 1d, but for the same month in 1835 only 36s 5d. From 1830 they stand as follows:—1830, 66s 6d; 1831, 61s 3d; 1832, 55s 2d; 1833, 48s 5d; 1834, 41s 1d; 1835, 36s 5d. The last is considerably below the general average of France for the seventeen years terminating with 1835, which was 40s 6d, the lowest during the period being 33s 8d for the past year, while ours is far lower than it has been for half a century, notwithstanding the general admission that the last year's crop in England does not exceed an average, whilst in Ireland it was decidedly deficient; indeed, the almost universal accounts appear to indicate that the surplus growth of that country this season (beyond what is required for their own consumption), will be but small,—an impression that derives confirmation from the inconsiderable import of Irish Wheat since harvest: the same remarks apply in some degree to Scotland, where the greater portion of the grain was secured in bad condition; and an expectation prevails in both countries, that their principal cities will require an importation from England, before another harvest. The additional consumption, consequent on the increase of population, the relatively low price of Wheat compared with other grain, and the general trade of the country being in a state of prosperity, must be great. The English grower has for the last four or five years, been almost wholly protected from foreign competition, yet the price in London is 8s per quarter lower than in New York. This state of things affords a striking illustration, not only of the inefficiency of a selfish attempt at monopoly, in conferring benefit on its promoters, but that it increases to them the evils intended to be remedied, at the same time inflicting incalculable loss and injury on the rest of the community.

We have to note a decided improvement in our rates the last few weeks,—say 6d per bushel, our present prices being,—for good English, 5s 4d to 5s 10d; Irish, 4s 10d to 5s per 62 lbs at Birming-



The quantity of Corn, Meal, and Flour, imported into Great Britain from Ireland, in the years 1826 to 1834.

	Wheat.	Oats.	Barley.	Beans.	Peas.	Rye.	Malt.	In. Corn.	Oatmeal.	W. Flour, &c.	In. Meal.	Pollard.
	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.		qrs.	cwt.	cwt.	cwt.
1826	211,925	1,179,896	64,881	7,191	1,452	76	1,202		194,602	255,240		
1827	468,820	1,916,339	88,480	14,188	B. & P.	601	935		438,965	618,313		
1828	474,991	1,805,336	84,201	7,068	4,826	1,424	853	233	424,749	621,569	160	
1829	340,084	1,117,729	97,110	10,411	4,435	568	2,011	30	402,127	626,268		1,664
1830	337,641	1,226,456	159,095	19,053	2,520	414				672,255		
1831	407,714	1,286,254	185,642	15,039	4,663		10,888	501	581,371	524,318	210	
1832	552,740	1,662,786	123,097	14,529	1,915	293		2,875	611,412	811,434	522	
1833	541,475	1,353,533	101,767	19,113	2,645	166	7,017	117	642,692	1,059,587		
1834	462,229	1,277,598	217,854	18,771	2,176	982	3,865		772,994	1,110,463		

1835 Accounts not yet made up but expected to be much less than 1831.

An Account of the Amount of Corn, Grain, and Flour, imported into the United Kingdom in each year, from 1st Jan. 1815, to 1835.

Year.	Imported from Ireland.	Imported from the B. N. American Colonies.	Imported from all other Parts.	Total Imported.	Year.	Imported from Ireland.	Imported from the British Colonies.	Imported from all other Parts.	Total Imported.
1815	821,192	25	333,041	1,154,258	1826	1,693,391	30,500	2,218,830	3,942,721
1816	373,865	3	319,203	1,193,071	1827	1,830,314	61,035	2,550,310	4,441,659
1817	699,809	25,877	1,775,353	2,501,039	1828	2,826,988	21,600	1,272,396	4,120,984
1818	1,267,851	56,618	3,474,051	4,738,520	1829	2,397,817	7,435	2,680,414	4,995,566
1819	967,861	14,257	1,693,255	2,675,373	1830	2,215,549	79,631	2,355,412	4,650,595
1820	1,417,120	40,897	1,300,953	2,758,970	1831	2,466,721	225,240	3,316,760	6,098,721
1821	1,822,516	40,916	216,738	2,080,470	1832	3,026,541	129,476	608,422	3,824,439
1822	1,063,059	25,439	102,365	1,188,893	1833	2,750,375	117,745	336,524	3,154,644
1823	1,528,153	209	53,432	1,581,794	1834	2,740,098	66,829	492,071	3,298,998
1824	1,634,024	891	609,147	2,244,062	1835		25,016	296,189	
1825	2,263,962	95,059	962,718	3,261,739					

An account of the Total Quantity of Foreign and Colonial Grain, that has paid the Duty in the United Kingdom, since the Act came into operation, in 1828, till 5th July, 1835, and the total amount of Duty received thereon; also what the Duty was equal to per Quarter on the average of the whole period.

	FOREIGN.			COLONIAL.		
	Qrs.	£	per qr.	Qrs.	£	per qr.
Wheat	4537912	1605637	6 8	462282	85022	8 8
Barley	1224762	347998	5 8	313	23	1 6
Oats	1521235	461670	6 1	8973	294	0 8
Rye	142771	26686	3 9			
Peas	256406	96957	6 9	5919	544	1 10
Beans	241213	134415	11 2			
Indian Corn	103285	19646	3 10	218	27	2 5
Black Wheat	35346	10706	6 1			
Wheat meal, and Flour	1896102	183252	11 11	478133	30529	1 6
Oatmeal	9	4 8 5		1843	78	10 0

Average price of Grain per quarter in England and Wales, for sixteen years, ending 1835, and Wheat since 1797.

Year.	Wheat.	Barley.	Oats.	Beans.	Peas.
1797	5 0				
1798	50 4				
1799	66 11				
1800	110 5				
1801	115 11				
1802	67 9				
1803	57 1	1820	s. d.	s. d.	s. d.
1804	60 5	1821	56 2	26 0	15 6
1805	87 1	1822	41 7	21 11	18 2
1806	76 9	1823	53 5	31 7	22 11
1807	73 1	1824	64 0	36 5	24 10
1808	78 11	1825	68 7	40 1	25 8
1809	94 5	1826	58 9	34 5	26 9
1810	103 3	1827	56 9	36 7	27 4
1811	92 3	1828	60 5	32 10	22 6
1812	122 8	1829	66 3	32 6	22 9
1813	106 6	1830	64 3	32 7	24 5
1814	72 1	1831	66 4	38 0	25 4
1815	63 8	1832	58 8	33 3	20 6
1816	76 2	1833	53 1	27 7	18 7
1817	94 0	1834	46 2	29 0	20 11
1818	83 8	1855	39 7	29 10	22 0
1819	72 3				

Corn, Meal, and Flour imported, entered for home consumption, and duty paid since 1823 inclusive, the first year it was levied on Corn.

Year.	Qrs.	Qrs.	Duty Paid.
	Imported.	for Home Cons.	£ s. d.
1823	53,866	12,362	10310 4 3
1824	612,594	677,195	176383 15 6
1825	1,060,837	834,425	301919 15 5
1826	2,252,271	2,098,944	442755 14 9
1827	2,622,252	2,998,866	792934 15 8
1828	1,294,378	1,237,494	196834 0 2
1829	2,694,432	1,959,355	907320 5 5
1830	2,691,894	2,649,348	990877 0 0
1831	3,570,569	2,265,392	547809 0 9
1832	668,422	475,680	309676 0 0
1833	481,506	112,408	36252 0 0
1834	560,056	236,902	99416 0 0
1835	321,206	439,988	291673 0 0

An Account of the quantity of Corn, Grain, Meal and Flour, imported into Great Britain and Ireland, in the years 1827 to 1835.

Year.	Wheat.	Barley.	Oats.	Beans.	Peas.	Rye.	Buck W.	Ind. C. or Maize	Wht. Meal, & Flr.
	Qrs. bu.	Qrs. bu.	Qrs. bu.	Qrs. bu.	Qrs. bu.	Qrs. bu.	Qrs. bu.	Qrs. bush.	Cwt. Qrs. lb.
1827	283,236	0	205,117	1,741,091	3	142,726	134,691	4	30,313
1828	715,242	6	168,673	0	0	166,422	73,370	7	52,928
1829	1,544,969	1	281,752	2	541,858	0	15,050	3	37,089
1830	1,414,262	6	131,715	0	199,947	0	17,013	0	32,910
1831	1,857,278	0	369,024	0	617,568	3	21,544	6	59,472
1832	405,854	0	101,147	0	31,862	2	27,914	3	20,193
1833	247,625	5	85,221	0	23,335	5	23,567	5	15,887
1834	431,566	3	87,187	5	175,266	5	51,849	2	63,895
1835	46,530	2	68,455	6	117,673	5	34,154	2	21,124

J. & C. STURGE, CORN-FACTORS.

## ECONOMIZING FOOD FOR HORSES.

(From the Irish Farmer's Magazine.)

It is a most mistaken notion that horses, kept for laborious purposes, can only be supported in strength and condition by corn and hay—for the result of many experiments has proved otherwise. The late Mr Curwen, the Irish tourist and eminent agriculturist, fed his horses chiefly on steamed potatoes, and cut straw also steamed, mixed together, and given warm. No doubt, this root is more nutritious when prepared in this manner; but it certainly is too windy and bloating without the addition of hay and corn. Many farmers in Scotland steam all sorts of food given to horses, and find it economical, notwithstanding the expense of fire and extra labour, which is a strong fact in favour of the system. Oats are steamed also to make them more nutritious; but, except in cases of sickness of the animal, or not being able to masticate hard grain, the practice is not advisable. It is necessary to keep horses for labour in good working condition, and too much soft food, be it ever so nutritious, will not effect this object. As a remedy also, to bring unhealthy and poor horses into flesh, steamed food is admirable; but to keep them so, and to enable them to pay for their keep, corn and hay, in its natural state, is necessary.

There are, however, many roots and vegetables besides potatoes which, if given in proper proportions, will be found both beneficial and economical in feeding horses; viz.:—Swedish turnips, carrots, parsnips, and mangel wurtzel, all of which may be given washed and sliced. The tops of French furze bruised, and a small proportion of oats added, is extremely strengthening to these animals, and will make their skins sleek and healthy. The last year's shoots are used for this purpose, which may be passed through the straw-cutter, and cut very small; then mixed with corn, which will induce the horses to masticate all altogether. Horses that have been badly treated and hard worked will not recover their condition without the assistance of some green vegetable or steamed food, even should they be served with sufficient corn and hay, and these to keep them so are occasionally necessary. Straw or red clover cut should be always given with corn; but there is a difference of opinion whether oats should be broken before being mixed with the chaff. Beans certainly should, otherwise these animals would suffer much injury, both in their eyes and teeth, in masticating such hard food; but it is said, and we think justly, that chaff being mixed with the oats is sufficient to prevent the horses from swallowing the latter too quickly, and that a certain degree of mastication is necessary, in order to promote the gastric juices so necessary for digestion.

We consider Swedes by far the cheapest food for horses, and, although not quite so valuable for the purpose as carrots, yet the facility for raising the former crop, and their moderate cost, makes them generally preferable. Potatoes, if steamed, are a more nutritious food, but, if given raw, are by no means so, and in this state often cause cholick and other internal complaints; and it even appears that the water from boiled potatoes is injurious to horses—besides, Swedes can be raised at two-thirds less expense than potatoes, taking the extra quantity of produce of the former, and their less expense of culture into consideration. The chaff from wheat after winnowing is good food for horses, mixed with sliced roots or with corn; and it may be generally observed that chaff, either of hay or straw, is necessary when on dry food, to promote the health of those useful animals; and, if on green roots, to counteract any bad consequences from too much succulent food.

Peas or vetches are not good food for horses, but may be given in small quantities with advantage, if broken, with Swedes or carrots. In a green state, however, vetches are the best horse food yet discovered, provided it is given when it has formed the blossom and not let to ripen its seed—it is, therefore, necessary that crops should succeed each other, that a continuation of this valuable food may be obtained. When horses are soiled it is better they should be housed at night in an airy stable, for the grass they pick up in the early part of the spring will do them but little service, and the pasture much injury, and some hay occasionally will materially benefit them. If at severe work, some oats or beans will likewise be necessary. Red clover should not be given to horses till in full blossom, and by soiling them with it one acre will feed more than two would do by permitting it to be pastured; the valuable manure made under this system is also a matter of the utmost importance to the farmer. B.

## ON RECLAIMING WASTE LAND.

BY MR. WILLIAM AITON, HAMILTON.

(From the Quarterly Journal of Agriculture.)

Having always considered agriculture to be the most important branch of industry in which a nation can be engaged, in so far as to raise from its own soil a due supply of food for its own population, I have often endeavoured to draw attention to the subject, by detailing what seemed to me best calculated to promote the interest of that science. It is for that purpose I now try, through the medium of this Journal, to call attention to what seems to me one of the most interesting branches of husbandry which is far from being yet duly attended to, namely, the general melioration of the soil, and in particular the reclaiming of a still greater portion of waste land, so as to render the nation independent of foreign states for the supply of grain, roots, and dairy produce, which every person conversant in rural matters, or in true political economy, must see to be a matter of primary importance. Every man will, no doubt, pursue the line of business that he thinks best calculated to secure his own interest in the circumstances in which he is placed, without much regard to national prosperity; but when any branch of national industry of such importance as the raising of grain from the soil is overlooked, the government ought to take measures to protect, encourage, or even to enforce, due attention to the raising of every possible species of food at home, to all the extent of national supply.

I am aware that speculative economists have recommended not only the neglect of waste land, but proposed that the cultivation and cropping of all land of an inferior or medium quality should be abandoned, and such land turned into pasture; and that we should trust to foreign markets for such grain as we may need, beyond what can be raised from land of the best quality. But a moment's reflection may serve to convince every man that is not led astray by whim or party feelings, that an advice so absurd as that offered by these economists, was never given by men of sound minds; for if their directions on that subject were to be acted upon, some hundreds of thousands of the most industrious and virtuous of our farmers, with their children, servants, and others whom they employ, and who are depending on the cultivation and cropping of inferior land, would



all be thrown out of their present employment, and have their courses in life to commence anew; and where, I would ask, could these people find employment or subsistence? not in the cotton factories nor on the loom, for these are already overstocked with hands; and no poor-rates that could be raised could keep so many people alive, or carry them over the Atlantic.

Every person capable of ordinary reflection must see, that if the cultivation and cropping of inferior land, and that of a medium quality (which comprehend more than two-third parts of all the arable land,) were to be abandoned, *that* land could be occupied with nothing but a sheep stock, or with cows of the worst description. Dairy cows, or those of an improved breed, and horses, cannot be supported without fodder in winter and spring; and that cannot be raised from such land, unless it is manured and cropped as at present. We might get a precarious supply of grain from the Baltic, and some butter and cheese from Holland, but we could not procure milk without keeping a dairy stock. We could not grow potatoes without dung, or have dung without straw, or straw without cultivating and cropping the land. If the land in question were turned into sheep-walks, a shepherd and his dog might manage all the land that now gives employment and support to thirty or forty families; while the herbage would, after seven years or so, decline in value, and ultimately be covered with moss, which would reduce the rent so as to ruin the proprietors, and of course deprive the manufacturer and merchant of their best and surest customers. In a word, the abandonment of inferior lands seems to me to savour more of bedlam, than even the ravings of the late Mr. Cobbett against the use of potatoes, which exposed him to so much ridicule.

The clamour raised by the economists, and so loudly reiterated by town and village demagogues, against the corn-laws, so necessary to protect agriculture, and induce the farmers to improve the soil, displays great ignorance and want of patriotism; for it is very uncertain if we could find anywhere grain to the extent we would need if their advice were followed. But if we could procure the grain, the price, which has always been paid in specie, or bills on London, would soon drain the precious metals from Britain, and place her in the mercy of foreign states, not only as to price, but they might enact something like the Berlin and Milan decrees, or Jonathan's non-intercourse act, and thereby compel us, in the hour of necessity, to sell our birthright and best interests for a mess of pottage.

That we may easily raise, to great advantage, from our own soil, all the grain, roots, &c. necessary for even a greatly increased population, must be evident to every one who has paid due attention to that subject; and which I shall endeavour to shew in a few short paragraphs.

It has been ascertained, by parliamentary inquiries, that on an average of twenty years, the grain raised from our own soil has fallen short of national supply, to the extent of *four weeks consumption* every year; or, in other words, our grain falls short one-thirteenth part of what is required to supply the population. But if we could so improve the soil as to make it yield one quarter in addition to every twelve quarters now raised, we would become independent of the foreign market for all the necessaries of life, that our soil and climate are capable of producing. And surely no man at all conversant in husbandry can doubt,

that it would be easy to raise far more than would supply that deficiency.

Every person who has reached the age of fifty years, and that has paid the least attention to the progress of agriculture, will admit, that the produce of land has been far more than doubled within that period; and every intelligent farmer will also admit, that our arable land is capable of producing double its present produce in the course of twenty years. If so, we certainly err greatly in purchasing, in a foreign market, any part of the grain we need.

But besides what might be raised to advantage from the land now under cultivation, it is well known that we have in Britain and Ireland several millions of acres of waste land that are capable of being rendered profitably productive of much grain, roots, and rich herbage, but which are still neglected. I need not point out such land, as it abounds in almost every rural district in the three kingdoms. It is therefore surprising that when we have such treasures in every county, and so many people complaining for want of employment, and going to America to find it, that we should allow our waste land to remain *in statu quo*, and send our money to foreign markets for the grain such land would produce, and the cultivation of which would give bread to many people, mend the climate, and enrich the proprietors. A reasonable attention to this subject would more become our legislators, than the party squabbles they have been so much engaged in for some years past.

Fortunately the possibility of reclaiming waste land to advantage, is no longer merely a matter of opinion, but has in many instances been carried into effect with profit. I could easily point out many instances of successful cultivation of such land, but shall at present only mention a few cases of spirited exertions, that I have lately witnessed on the borders of the counties of Peebles and Lanark, where the land is from 700 to 800 feet of altitude, and from whence coal and lime are rather distant.

A very spirited and well-arranged improvement of waste land has been begun on the muirish part of the farm of South Slipperfield, in the parish of West-Linton, by Mr. William Forbes, advocate, under the direction of Mr. Alexander Goldie, W. S., Edinburgh. The land there selected for improvement extends to 1000 acres, which had been till now occupied as a sheep-walk, and into which neither spade nor plough had ever entered. The native soil is dry and sandy, but covered with a thin stratum of moss, and which is deeper where the ground is level and moisture detained: the whole yielding much heath and coarse herbage, but mostly so smooth on the surface, and the acclivity so moderate, as easily to admit of being ploughed. This muir has been laid off into five farms, of about 150 acres each, with two cottage settlements of about 10 acres each; and above 150 acres have been formed into broad belts of planting between the farms, and these well inclosed with substantial stone-fences. Four excellent and suitable steadings and a cottage have been built on the four farms already let, and excellent roads have been made to each. The proprietor makes subdivision fences when required, on the tenants laying down the stones, and pays the price at the kiln of 25 bolls of lime to each acre of the land. The tenants pay no rent for the first three years of their leases, and only the interest of the proprietor's outlay on the farm (say 1*l.* or 2*0*l.** each) for the fourth and fifth years; and a rent which may

average about 7s 6d per acre, from that to the end of the leases of nineteen years. But each tenant is bound to break up and crop ten acres every year, till he go over the whole land he occupies. Three of the tenants and the cottager, who are only in the first year of their respective leases, have each a few acres in crop; and where they had limed the land, and given it two ploughings, their oats are medium crops, of six or seven bolls per acre; but where the land was not limed and twice ploughed, the seed sown will not be reaped. One tenant had obtained leave from his predecessor to lime, plough, and sow two acres the spring previous to his entry, and his first crop on these two acres yielded him 12 bolls of oatmeal; and his crop of this year, now reaping (16th September 1833,) extends to eighteen acres, one-half of which will average six bolls, and the other half nine or ten bolls per acre. All these tenants have excellent crops of potatoes and turnips. One of the five farms is retained by the proprietor.

As the highest rent offered for the whole 1000 acres, to be occupied as a store-farm, was only 80*l.* per annum; as all the improvements executed by the proprietor will not cost more than 2000*l.*; and as the whole land will (if rates do not vary from what they are now) yield from 10s to 15s per acre of rent, after the expiry of the present leases, besides 200 acres of planting, the improvement cannot fail to be profitable; while the reflection of having turned a desert into a fruitful field, ornamented a district, and improved its climate, given employment to many people at first, and to several families permanently, must yield the learned proprietor lasting satisfaction.

Another interesting improvement was a few years ago made by the late Sir Charles Lockhart of Lee, and Mr. Charles Cunningham of Newholm, near Dunsyre, which falls to be described. The water of Medwyn, having a very irregular course through an extensive haugh, had rendered it a marsh so much overflowed with water in winter, that it was of very little value, and some places of it could not be gone through with safety. But by opening a proper channel for the water for nearly four miles, the whole haugh has been, or can now, by making a few side-cuts, be rendered dry, and capable of being cultivated with ease, and to great advantage. Some of the occupiers of part of that haugh have not, it is true, from their leases being near an end, proceeded in bringing part of the haugh into crop. But Mr. Cunningham has brought his part of it (about forty acres) into a state of complete improvement, and rendered it productive of the very best of all sorts of grain crops, roots, and grass. And Mr. Hamilton in Boreland has, during this and last year, broke up about fifty acres of the same haugh, and it has yielded him luxuriant returns of oats. He is preparing to break up twenty acres more next year; and some other tenants are beginning to follow his example. The haugh altogether extends to between three and four hundred acres; and what has already been cropped, has yielded ten times the produce it did formerly.

Mr. John Allan Woddrop of Ellsrickle has, on his estate of Garvald, in the parish of Linton, converted several fields of marshy land into dry ground, from which he is reaping crops of oats, barley, hay, potatoes, and turnip, all of the best quality.

Mr. Daniel Brown, one of Mr. Woddrop's tenants, has, within the last five years, broken up about sixty acres of waste land, part of which had

been formerly cropped, but had since been allowed to become wild, and part of it is new land, and he has reaped excellent crops of grain and roots from every part of what he has broken up.

Mr. William Bowie, in a new farm in that neighbourhood, the property of Mr. Richard Mackenzie of Dolphinton, has begun to break up some fields of waste land, from which he is reaping valuable crops. Some others of Mr. Mackenzie's tenants have improved, and are now improving, patches of waste land, which has amply repaid their labour, as well as ornamented and enriched that estate.

Mr. David Brown, in Easton of Dunsyre, is now reaping an excellent crop of oats from about forty acres of waste land, that had either never come under the plough, or that had been neglected for about fifty years, and had become waste, yielding little but heath.

These spirited and generally successful improvements, all situated near to each other, and near to the extensive improvements on the estate of Sir Thomas Carmichael of Skirling, those of Mr. William Aitchison of Boreland, and others, afford altogether an agreeable specimen of the culture of waste land, which, if persevered in as begun, will soon render large tracts of bleak and poor lands productive of the food of man, and ornaments of the district in which they are situated, as well as serve to stimulate other proprietors of such waste lands to fulfil a duty to themselves and to the nation, by turning deserts into productive soil.

## TIMBER.

The following observations are extracted from a work lately published by Mr. Smeaton, civil engineer, entitled "The Builder's Pocket Manual":—

**FELLING TIMBER.**—Something may be done towards the prevention of decay, by felling the timber at a proper season. A tree may be felled too soon or too late, in relation to its age, and to the period of the year. A tree may be so young that no part of it shall have the proper degree of hardness, and even its heart wood may be no better than sap wood, or a tree may be felled when it is so old, that the wood, if not decayed, may become brittle, losing all the elasticity of maturity. The timber grower is more likely to adopt, from interested motives, the former of these errors, and fell his timber too young. His object is to obtain as much timber as possible, but a tree is not in its maturity when it ceases to grow, for after this period its fibres gain firmness and density. The time required to bring the several kinds of trees to maturity varies according to the nature of the tree and the situation in which it may be growing. Authors differ a century as to the age at which oak should be felled, some say 100 and others 200 years, it must then be regulated according to circumstances.

But it is necessary to say that the timber trees should be felled at a proper season of the year, that is to say, when their vessels are least loaded with those juices which are ready for the production of sapwood and foliage. The timber of a tree felled in spring, or in autumn, would be especially liable to decay; for it would contain the element of decomposition. Midsummer and midwinter are the proper times for cutting, as the vegetative powers are then expended.

There are some trees, the bark of which is valuable, as well as the timber, and as the best time for felling is not the best for stripping the bark, it is customary to perform these labours at different pe-

rieds. The oak bark for instance is generally taken off in early spring, and the timber is felled as soon as the foliage is dead, and this method is found to be highly advantageous to the durability of the timber. The sapwood is hardened, and all the available vegetable juices expended in the production of foliage. Could this plan be adopted with other trees, it would be desirable, but the barks are not sufficiently valuable to pay the expense of stripping.

SEASONING TIMBER.—As soon as the timber is felled it should be removed to some dry place, and being piled in such a manner as to admit a circulation of air, remain in log for some time, as it has the tendency to prevent warping. The next process is to cut the timber into scantlings, and to place those upright in some dry situation, where there is a good current of air, avoiding the direct rays of the sun. The more gradually the process of seasoning is carried on, the better will be the wood for all the purposes of building. Mr. Tredgold says, "it is well known to chymists that slow drying will render many bodies less easy to dissolve, while rapid drying, on the contrary, renders the same bodies more soluble. Besides all wood in drying loses a portion of its carbon, and the more in proportion as the temperature is higher. There is in wood that has been properly seasoned, a toughness, an elasticity, which is not to be found in rapidly dried wood. This is an evident proof that firm cohesion does not take place when the moisture is dissipated in a high heat. Also seasoning by heat alone, produces a hard crust on the surface, which will scarcely permit the moisture to evaporate from the internal part, and is very injurious to the wood. For the general purposes of carpentry, timber should not be used in less than two years after it is felled, and this is the least time that ought to be allowed for seasoning. For joiner's work it requires four years, unless other methods be used, but for carpentry natural seasoning should have the preference, unless the pressure of the air be removed."

WASTE LANDS.

Subjoined will be found a statement of the quantity of waste lands, or uncultivated soil, which still exists throughout various parts of the country. The document has been furnished to us by a society for the encouragement of industry, which meets somewhere in the City, and one of whose objects is to persuade the Government and the public that it is much better to employ the people in cultivating waste lands in England, than to send them to New South Wales or the Canadas. On this subject there are two points for consideration:—the interests of the emigrant, and the interests of the country. That the condition of the emigrant would be greatly bettered by his being set down in either of the countries alluded to, and bettered far beyond what it could be in this country, we think there can be no doubt; for in both there is every encouragement to the emigrant, while here taxation is daily grinding the faces of the poor, and extracting from them almost every penny, which the exertion of honest industry can procure for them. With regard to the interests of the country, again, the question is more doubtful, or rather becomes a selection of difficulties: for that the cultivation of waste lands is not profitable may easily be guessed from the capital of the country being diverted to different objects, while on the other hand, nothing is more self-evident than that every able-bodied man who emigrates to a foreign clime carries along with him, not only a certain portion of labour which is lost to the country, but a considerable portion of capital also, and that the

country is in consequence a loser to such extent by the transaction. Which of the losses incurred by it is the greater—that of furnishing means for the support of those who can find no work, and are in consequence unable to maintain themselves, or that which arises from the direct loss of capital and labour incurred by emigration, we leave to others to determine:—

1825.

Table of the larger Quantities of Waste Land, and Counties containing the same, in the United Kingdom; about two-thirds of which are convertible into arable, gardens, meadows, and pasture, and one-third for planting young trees; and the future procuracy of turf, peat, etc. for fuel:—

ENGLAND AND WALES.

Acres.		Acres.	
Brecknock . . . .	80,000	Glamorgan . . . .	60,000
Cardigan . . . . .	80,000	Lancashire . . . .	200,000
Carmarthen . . . .	60,000	Lincoln . . . . .	180,000
Carnarvon . . . . .	60,000	Montgomery . . .	100,000
Cornwall . . . . .	190,000	Northumberland	160,000
Cumberland . . . .	150,000	Surrey . . . . .	170,000
Derby . . . . .	100,000	Westmoreland . .	110,000
Devon . . . . .	300,000	Wilts . . . . .	200,000
Durham . . . . .	100,000	Yorkshire . . . . .	600,000

SCOTLAND.

Acres.		Acres.	
Aberdeen . . . . .	450,000	Inverness . . . . .	750,000
Argyle . . . . .	600,000	Kirkcudbright ..	200,000
Ayr . . . . .	292,000	Lanark . . . . .	195,000
Banff . . . . .	300,000	Perth . . . . .	550,000
Berwick . . . . .	430,000	Ross . . . . .	545,000
Bute . . . . .	400,000	Roxburgh . . . . .	100,000
Dumfries . . . . .	320,000	Sutherland . . . . .	600,000
Elgin . . . . .	200,000	Wigtown . . . . .	100,000
Forfar . . . . .	220,000		

IRELAND.

Acres.		Acres.	
Antrim . . . . .	218,000	Limerick . . . . .	114,110
Cavan . . . . .	160,500	* Londonderry ..	172,070
Clare . . . . .	104,400	Mayo . . . . .	565,570
Cork . . . . .	361,000	Roscommon . . . .	192,160
Doregal . . . . .	417,920	Sligo . . . . .	189,930
Down . . . . .	126,170	Tipperary . . . . .	113,490
Fermanagh . . . . .	120,500	Tyrene . . . . .	135,020
Galway . . . . .	532,040	Wexford . . . . .	156,000
King's County . . .	348,440	† Wicklow . . . . .	160,000
Leitrim . . . . .	128,200		

N.B. The unprofitable land in the United Kingdom, of which Scotland contains 8,523,930 acres, comprehending the surface occupied by roads of every class, lakes, rivers, canals, rivulets, brooks, &c. towns and villages, farm-yards, and all other vacant spots, as quarries, ponds, and ditches, hedges and fences of all kinds, cliffs, craggy declivities, stony places, barren spots, woods and plantations, are 15,301,994 acres.

\* The greater part of this county belongs to companies in the City of London. We trust that we shall be able to count on the aid of these bodies.

† The other counties, which we have not included in this estimate, contain, notwithstanding, in the aggregate, a very considerable quantity of waste land; and while we observe Yorkshire, Mayo, Sutherland, &c., with such gigantic proportions, let it be recollected that even the diminutive Rutland, though smallest of English counties, contains of this portion of national asset 1,000 acres!

## TITHES.

The following statement has been handed to us by a gentleman who requested its insertion, as a rare occurrence, and well worthy the general attention. The names of the parties, which are given in the original, we shall omit for obvious reasons. The writer says "You no doubt recollect that in the year 1830, the tithic composition in our parish was valued and fixed by ———— and ———— (the latter gentleman the noted parson's man.) At that time, wheat was selling at from 30s to 34s per coomb, and every one but our rector thought it was set at its full value, and it is known to be higher than any in our neighborhood of the same quality of land. What must be your surprise when I tell you that on Monday, the 7th December last, the farmers met at the ———— Inn, for the purpose of paying their money, in the great hope, if not in the great expectation of an abatement of 20 or 30 per cent. The term of valuation having expired at Michaelmas, 1834, the last year they were under no bargain. At the meeting they were told by the lawyer, (———) that he had no authority to offer any abatement, but on the contrary, they would find that the rector was not satisfied with the tithe they were now paying. The rector, though he did not choose to receive the money of the farmers themselves, came and dined with them, and when some attempted to remonstrate with him on the exorbitant tithe they were paying, he said he did not wish to interfere with the harmony of the evening by going into the subject, but would appoint a day for the purpose." Accordingly, the farmers were summoned for a particular day, each at a different hour, when the rector demanded—"now wheat is selling at the miserable and ruinous price of 18s. per coomb, an increase of from 10 to 15 per cent. (according to circumstances) upon the valuation of 1830, and not satisfied even with that, he would not agree with us for that advance, if we were disposed to give it, unless we would submit to the following scale, which he proposed." It was this:—

"If a coomb of wheat and a coomb of barley together drop to 28s. the two coombs, mind you, he would be satisfied with the present advanced tithe, and if the two coombs dropped below 26s he would then reduce 5 per cent. and if below 24s 10 per cent. and so on. But on the other hand, if the coomb of wheat and coomb of barley rose to more than 33s value, he should advance 5½ per cent. and if to more than 36s 10 per cent. and so on—the reduction to be for every 2s the two coombs may fall, and the advance to be for every 3s they may advance. So here are the major part of us larger occupiers thrown upon the casting system again. Let the sticklers for supporting the dignity of the church establishment look at this, and think whether it is not high time that the land of this nation should be relieved from such a curse as this—and a very great curse it is, that when it shall have pleased Providence to reward the industry of the producers with good crops, that the clergy should continue to be allowed by the laws of this country to tear from them the tenth of their skill, capital, and industry; throwing the labourers out of employ, to be maintained out of the poor's rate. I believe nearly every other clergyman around here has made some abatement, such as 10, 15, 20, and one 30 per cent.—*Norwich Mercury.*

## TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—In your valuable paper I read an account of the Central Agricultural Society's meeting, held at the Freemason's Tavern, Dec. 15th. I am happy to find something is going to be done to relieve the farmer. I beg leave to suggest a few plans, which I have no doubt, if put into operation, would tend materially towards it, and which is, the better cultivation of the soil; though it might not be in the power of many farmers to do it at present, but it

might be done between landlord and tenant. I am sorry to see that many farmers do not put more than one-third of the manure on their farms now, which they did a few years back, and the result will be, that in a few years we must have recourse to foreigners for corn, though plentiful at present. I have made this remark to many of the farmers, and the reply is with one and all, that they cannot afford to manure well now, the times are so bad. Where that is the case, I should say it would be better for the landlord to allow so much per acre for manure, than to let their farms be run out. There is another great error prevailing with many farmers; that is, not paying more attention to the breeding of good stock. It is often to be seen in market that one farmer sells his three-year old cattle for almost double the price that his neighbour can get for his, where the land of both farms is equally good, or would be with good management. I have always noticed that a farmer that breeds prime stock is also a good cultivator of the soil; while, on the other hand, he that is deficient in one, is so in both. There are many estates much neglected by the landlord in the way of drainage, for no land that stands in need of it can be brought into a high state of cultivation. There are many instances to be met with where one farmer is getting 35 bushels of wheat per acre, and his next neighbour only getting 15, with only the fence between the fields; and in two cases out of three, the land of the latter could be made to produce equal to the former, with proper management. There is much land to be met with, where several improvements might be made in the same field—as drainage, more manure and working the soil better, and not let it get full of couch-grass and other noxious weeds, occupying by far the greater part of the land. The grass land on many farms is more neglected than the ploughed land, from the want of drainage, manure, and letting off the surface water; and in dry soils, from want of irrigation, where it might be done with little expense. Perhaps it will be said, that every one has a right to do what he likes with his own; but my opinion is, that it is as much the landlord's duty as his interest to see that his land is made the most of, as it is his right to call on parliament for relief.

## A SHROPSHIRE FARMING SERVANT.

3rd February.

PRESERVING GRAIN.—A discovery of considerable importance has been announced with regard to preserving grain. To preserve Rye and secure it from insects and rats, nothing more is necessary than to fan it after it is thrashed, and then to stow it in the granaries mixed with chaff. In this state it has been kept more than three years without experiencing the smallest alteration, and even without the necessity of being turned to preserve it from humidity and fermentation. The experiment has not yet been made with wheat and other kinds of grain, and they may probably be preserved in chaff with equal advantage.

IMPORTANT TO BAKERS.—A mechanical kneading trough has lately been invented by a baker of the name of M. Fontaine, at Paris, for which he has obtained a patent from the French Government. The chief advantages derived from this new invention are, that from 30 to 800 pounds of dough can be kneaded in the small space of time of 15 minutes, with the labour of only one man, and that without the least fatigue. It also causes the dough to be much better kneaded, consequently the bread is much better made than by the process usually adopted. This invention is the fruit of long experience.

## AUSTRALIAN AGRICULTURAL COMPANY.

On Tuesday, the twelfth annual general meeting of the proprietors of shares in this undertaking was held at the company's house, King's Arms-yard, Coleman-street, to receive a report from the directors, and on other affairs.

John Smith, Esq., in the chair.

The Secretary read the report. It stated that the company's commissioner in Australia had reported very favourably with respect to the land granted to the company. The locations at Liverpool Plains and in Peel's River possessed every advantage which was to be met with in the colony of New South Wales for pasturage, &c. The report stated that the number of sheep on the company's lands, including fine-woolled and other descriptions, amounted to 47,270, of horses to 370, and 2,340 head of cattle. The stock of sheep on the lands consisted wholly of young, fine, improved woolled sheep. There was an increasing demand for horses for the Indian cavalry, and the company had a considerable quantity of land under cultivation, with crops of wheat, hay, maize, tobacco, &c. The colony had suffered from drought, but rains had fallen abundantly, and the crops of wheat when the last accounts left looked well. The operations at the coal-mines were going on actively, and there had been sold in the last year 8,490 tons. The sales of wool from the company's flock had realized, including six bales of skin wool, 5,350*l.* The remainder of the last clip, amounting to 156 bales, had just arrived. One circumstance, the report stated, had operated injuriously—the want of an adequate supply of convict labour. The directors had obtained the consent of Lord Glenelg to assign 150 convicts to the company, in addition to those already employed on their lands.

The Chairman, in moving the adoption of the report, said a great advantage had been obtained by the assignment of a number of convicts to the company. This was the more important as Gen. Bourke was compelled to assign convicts to those who bought lands in the colony, and the company had in consequence been left without an adequate number. It was perhaps not generally known that when convicts were allotted to individuals, and behaved well for some time, they were entitled to tickets of leave, which gave them liberty to work wherever they pleased. The supply now given by Lord Glenelg would enable the company to prosecute with vigour the works of the coal-mines and other objects. Although coal had been discovered in Van Diemen's Land, still a preference was given to that raised in Australia. The flocks and cattle on the company's land were in a healthy state at the date of the last advices.

The report was adopted, and directors and auditors were re-elected to fill those offices which had become vacant by rotation.

Thanks were returned to the governor, the deputy, and the Court of Directors and the meeting adjourned.

## THE FARMER'S CREED.

BY SIR JOHN SINCLAIR.

Let this be the farmer's creed;  
Of stock secure the choicest breed,  
In peace and plenty let them feed,  
Your land sow with the best of seed,  
Let not it dung or dressing need,  
Inclose and draw it with all speed  
And you will soon be rich indeed.

## COMMUNICATION FROM MR. WIL- LIAM BLACKER.

TO THE EDITOR OF THE IRISH FARMER'S AND  
GARDENER'S MAGAZINE.

Sir—I perceive in your article, "On Leasing and Cottage Holdings," in your present Number, (January, 1836,) you make allusion to a letter I addressed to the Editor of *The Highland Society's Journal*, and published by him in the Number for September last, from which you quote an opinion of mine (in which, however, you do not agree), "that the reduction of rents had been made with a sparing and very reluctant hand;" and you argue, from my having stated at the Markethill Dinner, "that I had often felt myself called on to stand up in defence of the landlords of the North of Ireland, and to oppose the indiscriminate abuse which the Press in England makes it almost a practice to apply, without reserve, to the landlords of Ireland generally—and which, so far as regards the principal landed proprietors of the northern parts of the kingdom, I know to be quite undeserved," &c. Now, I beg to assure you I am fully sensible of the friendly spirit of all your comments in regard to me, and therefore am quite certain your observation as to the latter statement being indicative of a change of mind, was not meant to accuse me of any *inconsistency*; but as some of your readers may take the matter up in that point of view, I beg to state that any apparent disagreement which may have struck you, between the two declarations, is most easily explained; and if you refer to my letter, or publish it entirely, for the perusal of your readers, you and they will both plainly see that the *first* declaration was applied to the landlords of the empire *generally*; and the *last* declaration was limited to the landlords of the *North of Ireland only*, and but to a *portion* of that limitation. Therefore, there is *no inconsistency whatever* in excepting any *small portion* from a *general charge*. Again, as to the correctness of the fact as regards the landlords of the empire—Will you or any other person assert, that rents have been reduced at *all equal* to the fall in price of agricultural produce? If this is not the case, (as every one must admit, speaking generally in regard to the rents of the empire,) *then* the abatements certainly cannot have been made with a *free and liberal* hand—and I cannot be much blamed for applying the epithets *sparing* and *reluctant*, if the abatement that has been made is certainly *under the mark*.

I should not wish to be led into a controversy which I really have not time for; but I think you will see, on referring to my letter, that you do not deal fairly with my statements. You assume it to be *evident* that, by increasing the number of small farms, a proportion of the working classes would be thrown out of employment. Now, the very reverse is the case. Large farms are almost exclusively worked by horses. The allowance of human labour to the hundred acres, in Scotland, is four men and a boy. Now, divide the hundred acres into twenty farms, of five acres each, and, if they go on the house-feeding system, they (the small farms) will have sufficient and well-remunerated employment for themselves, twenty in number, with their wives and families, according to the average of five to a family. No man without considerable assistance from his family, can cultivate five acres without the help of horse work. Thus, you may safely say, there is six times the quantity of human labour employed by the small farms than is employed in the large.\* I

\* From this, it appears evidently, that if the entire kingdom was divided into five acre farms, there

must further remark, that your argument, as to the state of agriculture in France—or in Kildare and Kilkenny—has no reference whatever to what I have written. In order to guard, as I thought, sufficiently against any possibility of mistake, I distinctly state in the letter alluded to—"I, however, wish it to be understood that, in arguing for the small farmer, I always suppose him to have the skill and the means to crop his land properly. If he has not these he must be supplied with both one and the other, which the plan I advocate is calculated to furnish;" and as you charge your example with both ignorance and inability, all my arguments remain untouched by your remarks. I beg to repeat that, in this reply, I merely mean to set myself right with yourself and your readers, and feel certain, if you read over my letter more particularly, you will find I am not liable to the conclusions you have drawn.

I am, Sir, yours, &c.,  
WILLIAM BLACKER.

### STATE OF AGRICULTURE.

[The subjoined article is from the last number of the *Edinburgh Review*. We are aware that it may not be approved of by all parties, but it contains so much valuable information that we do not scruple to give it.—ED. FARMER'S MAG.]

The increase of manufactures and commerce in Great Britain since 1760 has been so very extraordinary—so unprecedented in the history of industry—that it has engrossed the almost undivided attention of most inquirers into our progress in wealth and civilization. But, how paradoxical soever the assertion may at first sight appear, we are not sure that the improvement and extension of manufactures can, all things considered, be truly said to have materially exceeded the advances made in agriculture. The results of manufacturing and commercial improvement—the great towns, the factories, warehouses, docks, and other vast establishments, and the increase of population and of wealth to which they gave birth—arrest the attention of every one, and impress the mind with the most exalted ideas of their productive powers and capacities. Compared with them, the results of the most improved and skillful agriculture escape the public attention. They are spread over a wide surface; they have nothing striking or imposing about them; a crop of three quarters an acre does not appear very different from one of four quarters; and a country imperfectly cultivated, especially if it be well wooded, may

would not be anything like population to occupy them; and though you seem to assume, that I would wish spontaneously to cut up all the large farms to this extent, I am not aware that any thing I have said or done, can justify such an opinion. I have merely advocated it as a measure of necessity, to give employment where employment could not otherwise be had; and so far from wishing for it, I describe as one of the advantages which the allotment of un-reclaimed lands would occasion, would be, "that the farms instead of being subdivided, would by degrees be enlarged, and the comforts and independence of the whole community would be gradually increased by the operation of natural causes, without constraint or violence," viz: by the small holders going of themselves to the new allotments, and leaving their respective holdings to be divided among those they left behind.

seem, to a common observer, to be little inferior to, if it do not surpass, one that is cultivated in the most approved and efficient manner. It is only when we survey them in the aggregate, when we bring the scattered and singly inappreciable results of agricultural industry into a collected mass, that we become duly sensible of their magnitude and extreme importance; and that the panegyrics of the ancients on agricultural industry seem to be almost as correct as they are eloquent.

The insular situation of Great Britain, and the rigidly enforced regulations under which the trade in corn and other agricultural products has long been conducted, afford the means of establishing some most important conclusions as to the progress of agriculture. If the population has been greatly increased, if all classes be at present better and more liberally fed than at any former period, if the consumption of corn by horses be at least three or four times as great as about the middle of last century; if, we say, all these things have been accomplished, not only without any increase, but with an actual cessation of importation, is it not a clear proof that agriculture has been wonderfully improved? It may not be possible to point out the different modes in which the grand result has been brought about, or to measure the exact influence of each, but of the result itself there cannot, under the circumstances supposed, be the shadow of a doubt. We shall briefly show that such has been the case.

As to the increase of population in England and Wales, since 1700, it is exhibited in the following table, calculated by Mr. Finlaison of the National Debt Office.

Population of England and Wales, from the year 1700 to the year 1830, including the Army, Navy, and Merchant Seamen:—

Years.	Population	Years.	Population	Years.	Popula.
1700	5134516	1750	6039684	1800	9187176
1710	5066337	1760	6479730	1810	10407556
1720	5345351	1770	7227586	1820	11957565
1730	5687993	1780	7814827	1830	13840751
1740	5829705	1790	8540738		

We regret we have no similar account of the population of Scotland since 1700 to lay before the reader. Its population at the period of the Union in 1707 is generally supposed to have been about 1,050,000: but it was not till 1755 that it was estimated with sufficient accuracy. At that epoch the population was ascertained, from returns communicated from the different parishes to Dr. Wedster, to be 1,265,380. In 1801 it was found by the census of that year to be 1,599,068; and in 1831 it had increased to 2,365,114, or to nearly double its amount in 1755.

Taking the population of England and Wales in 1755 at 6,259,707 (the mean between that of 1750 and 1760), and adding to it the then population of Scotland, we get 7,525,180 for the population of Great Britain in 1755. But the population in 1831 was 16,539,318, showing that in the interval there had been added to it the prodigious number of 9,014,139 individuals, or that it had increased in the ratio of nearly 220 per cent! An increase of this sort is unparalleled in any other European country, and is to be matched only by the increase that has taken place in the United States.

Now, we affirm that the improvements that have been made in the agriculture of Great Britain since 1755 have sufficed to provide an ample supply of food for this additional *nine millions* of inhabitants;

and if we suppose, which is certainly a moderate estimate, that they consume, one with another, to the value of 8*l* a-year of raw produce, it will follow that the progress made in agriculture, since the middle of last century, has added the enormous sum of 72,000,000*l*, a-year, or more than twice the total value of the cotton manufacture, and nearly three times the interest of the national debt, to the free disposable income of the country. It will not be difficult to show that such is undoubtedly the fact.

Mr. Charles Smith, the well-informed author of the tracts on the corn trade, estimated the population of England and Wales in 1760 at six millions, which the previous statements show was very near the truth. He then estimated the consumers of each sort of grain, the quantity consumed by each individual, and, consequently, the whole consumed by man, as follows:—

Estimated Population of England and Wales,	Average consumption of each Person,	Consumed by Man.
3,750,000 consumers of wheat, at 1 quarter each,		3,750,000 quarters.
739,000 do. of barley, at 1½ do.		1,016,125 do.
888,000 do. of rye, at 1¼ do.		999,000 do.
623,000 do. of oats, at 2½ do.		1,791,225 do.
		7,556,350 do.
In addition to this, Mr. Smith estimated the wheat distilled, made into starch, &c. . . . .		90,000 do.
Barley used in Malting, &c. . . . .		3,417,000 do.
Rye for hogs, &c. . . . .		31,000 do.
Oats for horses, &c. . . . .		2,461,500 do.
Total of home consumption, . . . . .		13,555,850 do.
Add excess of exports over imports, . . . . .		398,624 do.
Add seed (one tenth), . . . . .		13,954,474 do.
Total growth of all kinds of grain in England and Wales, in 1760, . . . . .		15,349,921 do.

These estimates are believed to have come pretty near the mark; and they are interesting as showing the variations that have taken place in the food of the people. But whether accurate or not is of little importance to our argument. There is, at all events, no doubt about the fact that the average annual excess of the exports of corn over the imports, did not then amount to 400,000 quarters. This is a matter that does not depend upon estimate or conjecture of any kind; but upon the official returns rendered by the custom-house. But we have imported no foreign corn, or next to none, for the last four years; so that it necessarily follows, that all the vast numbers that have been added since 1760 to the population of Great Britain, must be exclusively indebted for their subsistence to the subsequent improvement and extension of agriculture; except in so far as we may suppose this result to be modified by the absorption of the 400,000 quarters referred to above, and by importations from Ireland.

The imports from Ireland amount at present to about 2,500,000 or 2,600,000 quarters of all sorts of

grain, from 1,600,000 to 1,800,000 quarters being oats. And, adding to the imports from Ireland the 400,000 quarters exported in 1760, the total extra supply, exclusive of that derived from the improvement of the agriculture of Great Britain, may be taken at nearly 3,000,000 quarters, of which about two-thirds are oats. Now, supposing this quantity were altogether used as food for man, it would not provide for more than 1,200,000, or at most 1,500,000 of the 9,000,000 added to our population since 1755 or 1760. In point of fact, however, not a single bushel of it can be fairly regarded as being so used. The horses at present in Great Britain, over and above those kept in 1760, certainly require at least from eight to ten, instead of three millions of quarters of corn, for their consumption: and, in addition to the vast increase of population there has been a material increase in the consumption of each individual. Hence, in measuring the progress of agriculture in Great Britain, as we have done, by the mere increase of population, we are very considerably, indeed, within the mark.

To attempt to prove by argument the fact that there has been a wonderful increase in the number of horses since 1760, is, perhaps, presuming too much on the patience of the reader. For every single horse used in posting, in stage coaches, in the conveyance of waggons, vans, &c., along the high-roads in 1760, there are now from twelve to twenty, or more. In some districts there has been a decrease in the number of horses employed in teams; but even in these the total number of horses has been much increased. In Lancashire, the West Riding of Yorkshire, and all the manufacturing districts, the increase in the number of horses has been almost as great as the increase of manufactures; and this also has been the case in London and in all the large towns. We are quite sure that we are within the mark when we say that there are at this moment in Edinburgh, Glasgow, and Dundee, upwards of *twenty-five* horses for every one that belonged to them in 1760. And the improvement in the keeping of horses has been quite as great as the increase of their number.

Mr. Charles Smith estimated the consumption of oats by horses in 1760 at 2,461,500 quarters. But no one can be so ill informed as to suppose that this estimate is in any degree applicable to the present times. On the contrary, we are well satisfied, from extensive inquiries made amongst those best informed as to such matters, that the consumption of oats by horses in Great Britain at this moment is certainly above ten if it do not exceed twelve millions of quarters. But taking it at ten millions only, it follows, that about five millions of quarters more of British corn, after allowing for the entire imports from Ireland, and for the cessation of the exports, are now appropriated to the feeding of horses than in 1760. Hence it appears that the improvement and extension of the agriculture of Great Britain since the middle of last century, independently altogether of any extrinsic supplies from Ireland or any where else, has been so very great, that besides enabling the country to appropriate an additional five, but more probably, seven millions of quarters to the feeding of horses, it supplies food for very considerably more than double its former population, and those too living in comparative ease and affluence. The history of the world may be ransacked in vain for a parallel instance of improvement in any old settled country.

But though there had not been a single bushel of corn expended on the feeding of horses in 1835 more than in 1760, nor an additional individual added to

the population, the improvement that has taken place in the interval in the style of living of all classes, would have a good deal more than sufficed to swallow up the entire imports from Ireland, and to account for the cessation of exports. The proofs of this improvement are abundantly obvious. Out of the 6,000,000 of people in England and Wales in 1760, Mr. Charles Smith tells us that 883,000 were fed on rye. But at present we are quite sure there are not 50,000 who use that species of grain. The rye eaters have universally almost been changed into wheat eaters; and except in the county of Durham, where a mixture of wheat and rye, called *maslin*, is grown, the culture of rye is almost unknown. Nearly the same may be said of the consumption of barley. In the northern counties of England, at the middle of last century, and for long after, very little wheat was used. In Cumberland, the principal families used only a small quantity about Christmas. The crust of the goose pie, with which every table of the county is then supplied, was, at the period referred to, almost uniformly made of barleymeal.\* But no such thing is now ever heard of even in the poorest houses. Almost all individuals use wheaten bread, at all times of the year. It is, in fact, the only bread ever tasted by those who live in towns and villages, and mostly, also, by those who live in the country.

It has been the same every where throughout the kingdom. In Cornwall, from thirty to forty years ago, the small farmers, with the agricultural labourers, and those employed in the mines, almost invariably used barley; but at present they do not use it to any thing like the same extent as formerly, and in many extensive districts it has been entirely abandoned.† The same thing has happened in Somersetshire, and in every other county where either barley or oats was formerly made use of. Wheat is now the all but universal bread-corn of England; and in some of the manufacturing towns, within the last few years, the use of the inferior sorts of wheaten bread has been a good deal restricted; and is rejected, indeed, by all but the very lowest and poorest classes.

But great as has been the change in the quality of the food made use of in England during the last thirty or forty years, it is inconsiderable compared with the change that has taken place, during the same period, in Scotland. At the end of the American war, no wheaten bread was to be seen in the farm-houses, country villages, and minor towns of Scotland, and but little even in the largest towns. Oat cakes and barley bannocks were then universally made use of, but, at present, the case is widely different. The upper, and also the middle and lower classes in towns and villages, use only wheaten bread; and even in farm-houses, it is very extensively consumed. It is stated in the first of the works mentioned at the head of this article, that a field of eight acres sown with wheat, in the vicinity of Edinburgh, in 1727, was reckoned so great a curiosity, that it excited the attention of the whole neighbourhood, and that numbers of persons came from a great distance to see it! Even so late as the American War, the wheat raised in the Lothians and Berwickshire did not amount to a third part of what is now grown in them; and we shall certainly be within the mark, if we affirm that the wheat culture has increased in Scotland, generally, in a *tenfold* proportion since 1730.

But the change that has taken place during the last half century, in the consumption of butcher's

meat, is still more extraordinary than that which has taken place in the consumption of corn. The quantity made use of has been wonderfully increased, and its quality signally improved. From 1740 to about 1750, the population of the metropolis fluctuated very little; amounting, during the whole of that period, to about 670,000, or 675,000. Now, during the ten years ending with 1750, there were, at an average, about 74,000 head of cattle, and about 570,000 head of sheep sold annually in Smithfield market. In 1831, the population had increased to 1,472,000, or in the ratio of about 218 per cent.; and at an average of the three years ending with 1831, 156,000 head of cattle, and 1,238,000 head of sheep, were annually sold in Smithfield; being an increase of 212 per cent. on the cattle, and of 217 per cent. on the sheep, as compared with the numbers sold in 1740-50. It consequently appears that the number of cattle and sheep consumed in London has increased, since 1740, about in the same proportion as the population. The weight of the animals has, however, a good deal more than doubled in the interval. In the earlier part of last century, the gross weight of the cattle sold at Smithfield did not, at an average, exceed 370lbs., and that of the sheep did not exceed 23lbs.: whereas, at present, the average weight of the cattle is estimated at about 800lbs., and that of the sheep at about 80lbs.‡ Hence, on the most moderate computation, it may be affirmed that the consumption of butcher's meat in the metropolis, as compared with the population, is twice as great at this moment as in 1740 or 1750.

In most other parts of the country, the increase in the consumption of butchers' meat has been even greater. In thinly peopled agricultural districts very little is consumed, but in manufacturing and commercial towns it is quite the reverse; and their vast increase during the last half century more than justifies the inference, that there has been, at least, a corresponding increase in the consumption of butcher's meat.

In this respect, too, the change in Scotland has been quite as great as that with respect to bread. So late as 1763, the slaughter of bullocks for the supply of the public markets was a thing wholly unknown even in Glasgow, though the city had then a population of nearly 30,000†. Previously to 1773, or perhaps later, it was customary in Edinburgh, Glasgow, and the principal Scotch towns, for families to purchase in November, what would now be reckoned a small, miserable, half-fed cow or ox, the salted carcass of which was the only butchers' meat they tasted throughout the year. In the smaller towns and country districts, this practice prevailed till the present century, but it is now almost everywhere abandoned. The consumption of butchers' meat in Glasgow, as compared with the population, does not at present differ materially from that of the metropolis. We do not, indeed, believe that the command of the people of any country over food and all sorts of conveniences, ever increased, in any equal period, half so rapidly as that of the people of Scotland has done since 1770.

A portion of the increased supply of butchers' meat has been derived from Ireland; but being mostly thrown on a single market, that of Liverpool, this portion appears much larger than it really is. If we estimate the imports of butchers' meat into

\* Sir F. M. Eden on the Poor. Vol. III., Appen. p. 88.—Middleton's Agricultural Survey of Middlesex. 2d edit., p. 541.

† Cleland's Statistical Account of Glasgow. 2d edit., p. 192.

\* Sir F. M. Eden on the Poor. Vol. I., p. 564.

† Evidence of Edward Coode, Esq., Report of 1833 on the State of Agriculture, p. 169.



Great Britain from Ireland, at a tenth part of the increased quantity produced in this country since 1760, we shall not be within, but decidedly beyond the mark.

It results from the previous statements,—1st, That the population of Great Britain has been considerably more than doubled—that the prodigious number of *nine millions* of individuals have been added to it, in the interval between 1755, or 1760 and 1831. 2d, That the supplies of corn, and other raw produce obtained from Ireland, are quite insufficient to provide for the increased number of horses kept in the country at present, over and above those that were kept in 1760. 3d, That the population is now, and has been for some years past, incomparably better fed, consuming a much greater quantity of wheat bread and of butchers' meat, in proportion to its amount, than in 1760, or at any other period of our history. And, 4th, That the ports have been shut during the last four years: and that, consequently, the vast additions made to the population, and the signally improved mode of living, have both been provided for by the extension and improvement of British agriculture. There is not one of these propositions liable to either cavil or dispute—they are all bottomed upon unquestionable evidence. And, having established them, we shall now briefly enquire into the nature and influence of the more prominent of those agricultural improvements, the result of which is, in the aggregate, so astonishingly great.

1. Enclosures are, probably, entitled to rank amongst the first of these. The extent of land occupied by wastes, commons, and common fields, about the middle of last century, was surprisingly great, and was, indeed, a standing reproach to the country. So late as 1770, fully three-fourths of the surface of Bedfordshire consisted of common fields, and of common or waste land; and yet it was not, in this respect, at all in a worse condition than many other counties. Wastes and commons are not cultivated; common fields are, it is true, subjected to the plough, but property in them is so much subdivided and intermixed, that it is altogether impossible to cultivate them to any good purpose. But, since the conclusion of the treaty of Paris in 1763, a wonderful progress has been made in wiping off this stain on the rural economy of the country; and in nothing, indeed, has the progress of improvement been more remarkable than in this particular. The first enclosure act was passed in the reign of Charles II. From the Revolution to 1797, the progress was as follows:—

	Acts passed.	Acres enclosed.
Queen Anne's reign...	2	1,439
George I.....	16	17,660
George II.....	226	318,778
George III. to 1797..	1532	2,804,197

It appears from this statement, which is taken from the Report of the 'Commons Committee of 1798, on Waste Lands,' that each enclosure act that passed during that period of the reign of George III., which terminated with 1797, enclosed, at an average, 1830 acres. Now, the official returns show, that from 1798 to 1832, both inclusive, 2103 enclosure acts were passed; and supposing each to have enclosed, as before, 1834 acres, the total would amount to 3,848,490 acres; making, when added to the quantity enclosed previously to 1798, an aggregate of no less than 6,652,687 acres enclosed since the accession of George III. in 1760. But as it seems probable that the earlier acts applied to a larger extent of land than the later ones, we may, perhaps, estimate the total extent of land enclosed and subdivided

by act of Parliament, from 1760 to 1832, at 6,000,000 acres. And it may be safely affirmed that, in consequence of its enclosure, the produce of this immense extent of land has been increased at least from *eight to tenfold!*

2. The introduction of fallows between successive corn crops, was a very great improvement on the previous practice; but the substitution of green crops for fallow, on all but stiff clay lands, has been the greatest of all improvements ever made in agriculture; and has effected as great and beneficial a revolution in it as the introduction of the steam-engine and of the spinning-frame has done in manufactures. There is abundant evidence to show, that the culture of turnip, as a field crop, was carried on to some extent in several English counties in the latter part of the 17th century. But the practice spread only by very slow degrees; and it was not till its introduction into the county of Norfolk, in the reigns of George I. and George II., when it was prosecuted on a large scale by Lord Viscount Townshend and others, that its signal importance became obvious. At the period referred to, the whole northwestern part of that county, which has long been one of the best cultivated districts of the empire, consisted of mere sandy wastes, sheep-walks, and warrens, worth little or nothing. These were converted into highly-productive arable land, by enclosing, marling, and the aid of the turnip-husbandry, which is, as it were, the corner-stone of the Norfolk, or improved system of husbandry. The same practices that had produced such splendid results in Norfolk—that had made sandy wastes yield the most luxuriant crops of wheat and barley—have been gradually extended, with similar effects, to many other parts of the kingdom. The produce in corn of the light soils, in all the moderately well-cultivated districts of the empire has, in consequence, been more than trebled; at the same time that a vast supply of green-food has been obtained for the feeding of cattle and sheep, and the production of the most valuable manure.

3. But, signal as has been the improvement in arable husbandry since 1760, the improvements made in stock husbandry, or in the breeding and fattening of cattle, have been still more considerable. No efforts for this purpose seem to have been made with judgment, and proper perseverance, till after 1750, when Mr. Bakewell, of Dishley, in Leicestershire, began his career. Mr. Culley, of Northumberland, soon after entered on the same course; and the signal success by which their efforts were attended, roused a spirit of emulation in a host of others. But the rapid increase of manufactures and commerce, and, consequently, of the town population, after the Peace of Paris, in 1763, by creating a corresponding demand for butchers' meat, gave the principal stimulus to the improvements that have since been made in stock-husbandry. It is not easy to over-rate their importance. We have already seen that, at an average, the weight of cattle and sheep has been a good deal more than doubled since about 1750; so that a stock of 5,000,000 head of cattle, at present, would be more than equal to one of 10,000,000 at that epoch. But the number, as well as the weight of cattle, having been very materially increased in the interval, the supply of butchers' meat must have increased in a corresponding proportion, or been at least trebled. There has also, owing to the same cause, been a very great increase in the product of wool. The supply of the latter article, produced in England and Wales, in 1800, was estimated at about 348,000 packs, of 240lbs. each. But, owing to the increased size of

the animal, and the greater weight of the fleece, the same number of sheep that produced 384,000 packs in 1800, were estimated by the best informed wool-growers and wool-staplers, to produce 463,000 in 1830, being an increase, in the interval, of no less than 20 per cent.\* It is true that the quality of the wool has rather deteriorated, for it seems to be impossible to procure both a heavy and a fine fleece. Taking, however, the increased weight of the carcass, and the increased weight of the fleece into account, sheep are believed to be more profitable at present, than at any former period; and, for the last three or four years, they have been the most productive species of stock kept in the kingdom.

It would be curious to trace how, in husbandry, as in other things, one improvement grows out of, and is dependent on, another. The grand improvement in modern agriculture—that by which it is mainly distinguished from the old—the universal introduction and superior management of green crops, may be in no inconsiderable degree ascribed to the anxiety of the farmers to procure an abundant and suitable supply of food for their stock; the increased demand for the latter being, as already stated, occasioned by the wonderful growth of commerce and manufactures.

The superior attention paid to stock-husbandry in England may, also, it is probable, be to some extent ascribable to the circumstance of the Tithe pressing, with comparative lightness, on pasture land; whilst it falls, with its full weight, on arable land, and operates powerfully to prevent the outlay of capital upon it. But, however accounted for, there can be no doubt, that in all that belongs to the breeding and rearing of cattle, horses, sheep, and pigs, the English are, at present, superior to the Scotch, and to every other people.

It may be worth while to remark, that much injury has arisen from injudicious attempts to improve native breeds of cattle. This has generally been occasioned by prematurely endeavouring to increase their size, which is always determined by external causes, such as the climate, the quantity and species of food the animals can readily obtain, &c. It is to the immensely increased supply, and better quality of food, that the increased weight of our cattle is principally to be ascribed. An improved system of breeding would have improved the symmetry of the cattle, and increased their aptitude to fatten; but, without an increase of food it would not have materially added to their size. In point of fact, too, the latter is an inferior consideration. The grand object that the prudent agriculturist should keep steadily in view, is the obtaining of the greatest possible return for his outlay; and he will prefer that kind of stock, and that breed, of any kind, that will pay him best for the food consumed. The value to which an animal may ultimately be brought, is a subordinate consideration; the profits of breeding, as of every thing else, being determined, not by the absolute price of the produce, but by its price as compared with the expenses incurred in bringing it to market. Mr. Culley's opinion is, that 'of all animals, of whatever kind those which have the smallest, cleanest, and finest bones, are in general the best proportioned, and covered with the best and finest grained meat; I believe they are, also, the hardiest and healthiest, and most inclinable to feed;—able to bear the most fatigue, while living; and worth the most per pound, when dead.† It is certain that animals, whether too

large or too small, will gradually accommodate themselves to the size best adapted to their pastures; but while the larger animal becomes unhealthy, and degenerates in its form and valuable properties, the smaller animal increases in size, and improves in every respect.

The preceding remarks apply exclusively to England and Wales. But though the progress of agriculture there, since the middle of last century, has been exceedingly rapid, it has been slow compared to its progress in Scotland. Previously to the peace of Paris, in 1763, agriculture, almost every where in Scotland, was in the most barbarous and depressed state imaginable. There was no rotation of crops; fallows were unknown, except in one or two counties; the processes and implements were alike wretched; great numbers of cattle perished every spring; the occupiers were in extreme poverty; and famines were every now and then occurring, that sometimes laid waste extensive districts. At the beginning of last century, and for long after, lands, even in the Lothians, were uniformly divided into *infield* and *outfield*. The whole manure made on the farm was laid on the former, which was ploughed and cropped without intermission, so long, at least, as it would bear any thing. Neither turnips, clover, nor potatoes had been so much as heard of; but corn followed corn in an unbroken series. In the *Countryman's Rudiments*, written by Lord Bellhaven, and published in 1723, we are told that the infield of East Lothian, where wheat is sown, is generally divided by the tenant into four divisions, or breaks, as they call them, viz., one of wheat, one of barley, one of peas, and one of oats; so that the wheat is sown after the peas, the barley after the wheat, and the oats after the barley.† Here we have a rotation with three consecutive corn crops, and a crop of peas once every four years. As might be expected, the returns were about *three times the seed*. It is of importance too, to observe, that this trifling return, was obtained at a great comparative expense. At this period, and for about half a century after, there was no instance in Scotland of a plough being drawn by fewer than four horses. Most commonly it was wrought either by six horses, or by four horses and two oxen; and in some of the more backward districts, a still greater number of animals, sometimes as many as ten or twelve, were yoked to it. This was ascribable partly to the awkward and clumsy form of the implement itself; partly to the weakness of the cattle, their diminutive size, and the improper manner in which they were yoked; and partly, and principally perhaps, to the ignorance of the cultivators. On the whole, however, the work was at once very expensive and very ill performed; the ridges were crooked and twisted, and so much heaped up in the middle, that a great deal of land in the hollows between them was lost to any useful purpose.‡

About the middle of the century we begin to find symptoms of amendment. In Maxwell's *Practical Husbandry*, published in 1756, an improved system is laid down and inculcated. He pronounces it to be bad husbandry to take two consecutive corn crops; and he further informs us, that the best farmers in East Lothian after fallow take a crop of wheat, after the wheat, peas, then barley, and after that oats. This is still very bad; though a material improvement on the practice described by Lord Bellhaven. It shows, too, that down to 1757, neither turnips, potatoes, nor any sort of cultivated herbage, formed any part of the system even of the best far-

\* Mr. Luccock's Tables, revised by Mr. Hubbard. See the Report of 1829, on the Wool Trade.

† Observations on Live Stock, p. 222.

\* Rural Recollections, p. 196.

mers in East Lothian. The famous Lord Stair is said to have been the first who introduced the turnip culture into Scotland; having raised turnips on his estate of New Liston, near Edinburgh, about the middle of last century. But Mr. William Dawson, tenant of Frogden, in Roxburghshire, has an unquestionable title to be considered as the real father of the improved Scotch husbandry. Being a farmer, and cultivating for profit only, his example had infinitely more influence over his neighbours than it would have had, had he been a landlord. He commenced raising turnips at Frogden, in 1759. They were at first sown broad-cast, but he set about drilling on a large scale in 1763, and his success stimulated others to adopt the same system. Mr. Dawson was also the first who introduced, not long after 1760, the practice of ploughing with two horses abreast without a driver; nor is it easy to exaggerate the obligations the agriculture of Scotland owes to his sagacity and enterprise.\* But even in the Lothians, the four horse plough continued in general use till about 1780; and it was not finally superseded by the two horse plough for several years after. In the other parts of the country the former kept its footing still longer than in the Lothians. Nothing contributed more to pave the way for this important revolution in the method of ploughing, than the signal improvements made upon the construction of the plough by Small, about 1770.

From the close of the American war, the progress of improvement in Scotland has been rapid beyond all previous example. This has been owing to a variety of causes, but principally to the extraordinary progress made in commerce and manufactures, since that period. In the distracted state in which Scotland was formerly placed, there could be no considerable progress; but, after the battle of Culloden had extinguished the hopes of the Jacobites, and the abolition of hereditary jurisdictions had paved the way for the introduction of a regular system of government, a spirit of industry and enterprise began to be diffused on all sides. A good many branches of trade and manufacture carried on in England were introduced into Scotland soon after the peace of 1763; and not a few of them were prosecuted with much success. Their progress was checked for a while by the American war; but after the treaty of Paris, in 1783, they acquired more than their former vigour; others were introduced, and all of them have since continued, with few, and those but transient, interruptions, to advance with a rapidity that could not previously have been supposed possible.

This unprecedented extension of manufacturing and commercial industry, occasioned a corresponding increase of wealth and population, particularly in towns and villages. Improved accommodations of all sorts began to be in universal demand; and, besides the greater quantity of the inferior sorts of food required to supply the increasing population, a novel, or at least a vastly increased market was open for wheat and butcher meat. These circumstances had the most astonishing influence over agriculture. The new, and constantly increasing markets, established at their very doors, stimulated the farmers to put forth all their energies, and to avail themselves of discoveries and practices to which they had hitherto been total strangers. In a few years the face of the country was completely changed; and its productive capacities increased in a degree that the most sanguine projector of any previous period could not have conceived possible.

The following statement of the comparative weight

of the produce annually afforded under the system of farming followed in East Lothian, as described by Lord Belhaven, and that which is now followed, is taken from a paper by Mr. Oliver of Lochend, near Edinburgh, one of the most intelligent practical farmers in the empire.

‘The mode of cropping at the former period (1723) was first, peas; second, wheat; third, barley; fourth, oats; the produce being about three seeds, but to prevent all cavil, say four seeds. This, taking the seed for each acre\* at one boll,† over a farm of 100 acres, is 400 bolls. The quantity of straw for each boll of such a crop could not exceed fifteen stones; which, on 400 bolls, gives 6000 stones, or forty-two tons, fifteen and one-fourth cwt. of straw to be consumed by the stock, and returned to the land in the shape of manure. But, upon a farm of 100 acres, cultivated as at present, viz. a fourth turnips, a fourth wheat or barley, a fourth clover or rye-grass, pastured or made into hay, and consumed on the spot, and a fourth oats or wheat, the account would stand thus:—fifty acres of wheat, barley, and oats, at eight bolls an acre, which is not above the average of the crops of the best district of East Lothian, and such only was cultivated when Lord Belhaven wrote; this, allowing, as before, fifteen stones of straw for each boll, gives 120 stones per acre, which, over fifty acres, makes in all 6000 stones of straw, being equal to the quantity produced by the whole 100 acres under the old system. Now, suppose that the twenty-five acres of clover and rye-grass are made into hay, which, however, is not the best mode, nor that usually followed, and that each acre yields 200 stones, the total quantity will be 5000 stones, or thirty-five tons, fourteen and one-tenth cwt., and add to this 500 tons turnip, being the produce of twenty-five acres at twenty tons per acre which is by no means above a fair average crop. Upon these data, the weight of the materials produced annually, as food for cattle and manure, under the old and new systems, will be as follows:—

Old System,	Straw,	6,000 st. or 42 tons	15½ cwt.
New System,	Straw,	6,000	42 15½
	Hay,	5,000	35 14 1-10th,
	Turnips,	70,000	500 —

‘Thus making the weight of materials for food and manure under the new system in round numbers 577 tons, while, under the old system, the quantity is only 42 tons, leaving a balance in favour of the new of 535 tons per annum, being more than *twelve times* the whole quantity produced under the old! Nothing more is necessary to show the superiority of the new system, in so far as keeping up the fertility of the soil is concerned; and upon this depends the progress of agriculture. As to the question of comparative profit, it would be easy to show, from unquestionable data, that the new system is as superior to the old in this respect, as it is in the supply of manure; but this must be abundantly obvious to every one who contrasts the almost imperceptible advances made in agriculture, and in the accumulation of agricultural capital, for many centuries, with the extraordinary progress during the last fifty or sixty years, or since the new system began to be introduced.’

We have thus endeavoured, first, to show, by the increase of population and otherwise, that there must have been a very extraordinary increase in the produce of the soil since 1760; and, in the second place, we have endeavoured to point out the more

\* The Scotch acre, equal to 1,261 imp. acres, is here referred to.

† An East Lothian boll of wheat is equal to near four bushels; a boll of barley to near six bushels.

\* Survey of Roxburgh, pp. 69 and 90.

prominent of the modes in which this increase has been brought about. But, before noticing the present state of agriculture, it may be right to say a few words in reference to a statement often made, though really destitute of any good foundation;—that is, that the wonderful improvements to which we have adverted, were almost wholly owing to the high prices of the late war. But these improvements began both in England and Scotland about 1755 or 1760, and they had been generally introduced, and had made a great progress, before prices sustained the smallest advance. Thus, we have already seen, that no fewer than 2,804,000 acres were enclosed in England and Wales between 1760 and 1797; that that also was the era of the great improvements made in stock husbandry by Bakewell, Culley, &c.; and that during the lapse of the same period, the culture of turnips, potatoes, clover, and artificial grasses was introduced into Scotland, four-horse ploughs discarded, and the most signal revolution effected in the rural economy of this part of the empire, of which history has preserved any account. Now, it is of the utmost importance to bear in mind, that, while all this was going on, from 1760 down to 1795, prices continued almost stationary. Thus, taking the Eton market for a standard, the price of wheat, per Winchester quarter, from 1755 to 1795, was as follows:—

At an average of the ten years, from			
1755 to 1765, wheat,	£1 19	3 $\frac{1}{4}$	per qr.
1765 to 1775, .....	2 11	3 $\frac{3}{4}$	do.
1775 to 1785, .....	2 7	8 $\frac{1}{2}$	do.
1785 to 1795, .....	2 14	3 $\frac{3}{4}$ *	do.

And had 1795, which was an extremely bad and dear year, been excepted from the average of the last decennial period, prices in it would have been as low as in the preceding. It appears, therefore, from evidence, which is beyond all question, that there was no rise of prices during the thirty years ending with 1795; and yet, during that period, above 2,200,000 individuals were added to the population, and agriculture made an astonishing progress. This would have proved conclusively, even though it had not been corroborated by the experience of the last twenty years, that an increasing price of corn is not in any respect indispensable to ensure the continued and rapid advance of agriculture. All that is required to ensure this is a regularly increasing demand for the products of the soil; and this was afforded between 1760 and 1795 by the growth of population, especially in towns and villages. It should also be remembered that, towards the middle of last century, there was, owing to the miserable state of the roads, and the difficulty of communication, a great difference in the prices of corn and other farm produce in different parts of the country. But the construction of new and comparatively smooth and level roads, canals, &c., did much to annihilate this difference in the rate of prices; and conferred on the more distant parts of the country advantages that had been hitherto engrossed by the districts in the immediate vicinity of large towns. A spirit of emulation and improvement was in consequence universally diffused; routine practices were thrown aside; and all classes began to make the most astonishing efforts to outstrip each other in the career of improvement.

It is unnecessary for our purpose to enter into any statements with respect to the causes of the high prices that prevailed during the greater part of the late war; and, particularly during the half-dozen

years ending with 1814. They no doubt gave a powerful stimulus to agriculture; its previous progress being not merely maintained, but considerably accelerated.

The heavy fall of prices that took place consequently to the opening of a renewed intercourse with the Continent in the autumn of 1814, was as sudden and severe as it was unlooked-for by most persons. In the first instance, it was productive of much distress, of the ruin of many landlords in embarrassed circumstances, and of multitudes of tenants paying money rents, calculated on the footing, that the prices that had been realized during the preceding six years would be permanent. This, however, was not the situation of the great body of the agriculturists, by whom the fall was comparatively little felt. It was indeed, supposed by many, that agriculture would certainly retrograde: that a great deal of inferior land would be thrown out of cultivation; and that, unless prices rose again to something like the war level, we should be dependent on the Continent and America for a large portion of our supplies. We question whether any individual had sagacity at the outset to foresee what has actually taken place. There is an elasticity about the industry of a great nation that enables it to recover from the rudest shocks. No inconsiderable portion—we believe we may safely say the greater part—of the wonderful progress made in manufactures and commerce since 1814, is clearly ascribable to the subsequent fall in the price of corn and other articles of food. But it is quite impossible that agriculture can be long depressed, where manufactures and commerce are flourishing; and in no very lengthened period, it began to revive. The property tax, which pressed heavily on the land, was struck off; rents were reduced; and the farmers exerted themselves to meet the new order of things by fresh efforts of skill and industry, and by proscribing useless expense. We do not pretend to say that this has been the case in all districts: but there is incontestable evidence to prove, that, taking Great Britain generally, agriculture has been astonishingly improved since 1814. How else could the extraordinary increase of population that has taken place in the interval be provided for? We shewed, in an article on the 'Report of the Agricultural Committee of 1833' (No. 118, Art 1), that there was either no increase, or none worth mentioning, in the quantity of foreign corn retained for home consumption during the ten years ending with 1830, as compared with the previous ten years; and yet the population increased during that interval from 14,391,000 to 16,539,000. Now, it is impossible that a result of this sort could have taken place without either a very great increase of agricultural produce or a striking and almost unprecedented falling off in the demand for corn. But the latter supposition is out of the question. Instead of there being any decline in the consumption, the statements previously made show, that the fact is completely the reverse; and that the consumption of wheat and butchers' meat is decidedly greater at this moment than at any former period—a result inexplicable on any other hypothesis, save that of a vast improvement having taken place between 1820 and 1830.

Still, however, the Agricultural Committee of 1833, and by far the greater number of the witnesses examined before it, laboured hard to prove that agriculture was in a depressed and declining state; that the capital applied to the soil was rapidly diminishing; and that a great diminution of supply might be confidently expected. We endeavoured to show in the article referred to, that the complaints in question

\* See Table of Prices at Eton, in M'Culloch's Com. Dict.—Art. Corn.

were certainly very much exaggerated, if not altogether unfounded. The experience of the two additional years that have since elapsed has more than verified our statements. The increase of population in Great Britain from 1800 down to 1830, has been at the rate of about 15 per cent. each ten years; or of  $1\frac{1}{2}$  per cent. per annum. A ratio of this sort is not easily changed, and there is no reason to think that it has been sensibly affected since 1830. Now,  $1\frac{1}{2}$  per cent. on a population of 16,539,000 (population of Great Britain at last census), gives an annual increase of no less than 248,000 individuals; so that it may be concluded that there are at present (Jan. 1836) about 1,200,000 persons in Great Britain more than were in it when the late census was taken; and about 500,000 more than when the Committee of 1833 framed their Report. And yet very little foreign corn was imported in 1832, whilst in 1833, 1834, and 1835, the ports were all but hermetically sealed to the foreigner. It is of importance, too, to observe, that, notwithstanding the sinister auguries of the Committee, and notwithstanding the greatly increased demand for corn, evinced by the rapid increase of population, the supply has been increased in a still greater ratio. This is evident from the decline of prices, which have sunk from 53s 3d in 1832, to less than 38s at present!

This wonderful result, so different from what was expected, is partially, no doubt, a consequence of the unusually productive harvests of the last two years; but it is ascribable, in a far greater degree to the influence of improvements, with the exception of some counties in the south and west of England, which continue in a comparatively stationary state, improvements have been every where carried on with extraordinary spirit. Among the principal of these may be specified improved drainage, a better rotation of crops, the general use of bone manure, and the opening of new channels of communication by steam boats and otherwise. Drainage lies at the bottom of almost every amelioration; and it is prosecuted to an extraordinary extent, and with surprising success. The practice of furrow draining is now widely diffused over the north and east of England; and it has been introduced, within the last half-dozen years, into this part of the country, and is carried on upon a scale that will hardly be believed by those not acquainted with the facts.—Landlords and tenants are every where availing themselves of this new discovery. Perhaps, however, Ayrshire is at present, in this respect, at the head of every county in the empire. It has a great deal of wet clayey soil, suitable for this improvement; and so well is its value understood, that many millions of drain tiles are now annually manufactured in the neighbourhood of Kilmarnock and other parts of the county, though the supply be still unequal to the demand. The Duke of Portland and some other landlords drain for their tenants on their paying an extra rent of 4s and 5s an acre; and this is said to be decidedly under the additional value given by the drainage to the land. The practice is rapidly extending in Lanarkshire, Dumfriesshire, and other Scotch counties, and has already had, and, no doubt will continue to have, an astonishing influence over their productive capacities.

A better rotation of crops is also every where in the course of being adopted. The high prices of the war tempted the farmers to sow wheat too frequently, and without proper preparation; the fertility of the soil being in consequence materially impaired in many districts. This was particularly the case in the Lothians. But this defect in the management is now nearly obviated. Clover and artificial grasses are kept longer down; barley is sometimes substituted for wheat. The

fertility of the soil is preserved; and taking even the best of the old improved land, it now produces, at an average, a larger amount of food.

But, of all the recent improvements in agriculture, the introduction and general use of bone manure is perhaps the most important. It first began to be employed on a large scale in Yorkshire and Lincolnshire: and, in the latter particularly, its influence has been all but miraculous. Most part of the Wolds of Lincolnshire, an extensive tract of country, stretching from Spilsbury north to Barton on the Humber, consisted, when Arthur Young wrote his survey of the county, of mere wastes, occupied by rabbit warrens. Could he now revisit the Wolds, he would hardly recognise a single feature of their former state. The warrens have disappeared, and in their stead we find some of the finest farms and best managed land in England. This signal improvement, though it did not begin, has been carried to its present pitch of perfection by the use of bone manure. We are informed, in the late elaborate report of the Doncaster Agricultural Association on this manure that, 'before bones were generally used with turnip seed, many thousand acres (in the wolds of Lincolnshire and Yorkshire) were annually sown for that crop without any manure whatever, from the impossibility of getting fold manure for more than a third or a fourth part of their fallows. The turnips upon such unmanured land were consequently very indifferent; and the benefit of such feeding upon their tops, for bottoms they seldom had any, was very trifling. Since the use of bones has, however, become general, the turnip crop has been in many instances *tenfold*, and in few, less than *four* or *five*-fold its former bulk. All the succeeding crops of grain and seeds have been amazingly increased; and, upon the four or five shift system, there is no doubt, the land will go on progressively improving, requiring a less quantity of bones annually, from its increased fertility and power.'

This, be it observed, is the testimony of practical men, well acquainted with all the circumstances; and it is decisive as to the extraordinary value and importance of bone manure on light chalky soils. A single farmer in the Wolds of Lincolnshire (Mr. Dawson of Withcall, near Louth), has generally about 600 acres of turnip, dressed almost entirely with bone manure. They are excellent, and furnish a vast supply of food for cattle, and of manure for other land, besides preparing and fitting the ground for bearing the most luxuriant crops of wheat and barley.\*

In Scotland, the introduction of bone manure is more recent; but here, too, it has already had a surprising influence. It is every where in fact—in the Lothians and Berwickshire, as well as in the most backward districts—working wonders. From the comparative facility with which it is conveyed to rugged hilly tracts, it enables estates to be improved and fertilised that must otherwise have remained in a state of nature. Besides large quantities of bone dust imported, bone mills are now constructed in the vicinity of every considerable town in Scotland, for the preparation of this most valuable manure.

We have previously noticed the influence of new roads, and other improved means of communication, on the progress of improvement during the first 35 years of the reign of George III. But during the last few years, there has been, in this respect, a still more astonishing change. The application of steam to navigation, has given to a voyage by sea the expedition, and almost the certainty, of mail coach travel—

\* Kennedy and Grainger on the Tenancy of Land, vol. i. p. 269.

ling, at comparatively little cost: and steam packets for the conveyance of bulky and heavy articles, as well as passengers, are now established all along the coast. The markets of London and Liverpool are thus brought, as it were, almost to the door of the occupier in the remotest districts. Formerly, it was the practice for farmers in Scotland to send up cattle and sheep half-fed to the Norfolk fairs, where they were bought by graziers to fatten for the metropolis. But this practice is already much fallen off, and will, at no distant period, be known only by report. Cattle and sheep are now fattened at home, and are sent up from the eastern ports, either alive or slaughtered, to London by steam. The advantages of this are great. The crops of turnips acquire a new and greatly increased value, and their culture is, in consequence, much extended. Nor does the cost of conveying the full-fed animal to its destination amount to a fourth-part of what it formerly took to convey the half-fed animal to Norfolk. All the ports of any consequence on the western coast of Scotland are now almost weekly visited by steamers from Liverpool; and such has been the influence of this newly opened intercourse, that we are well assured that, in the extensive tract of country stretching from Greenock round by the Mull of Galloway to the Cumberland border, to the distance of 10 or 15 miles inland, the turnip culture has been increased in a ten-fold proportion since 1820. This stimulus will, it is probable, be still farther augmented by the formation of railroads. It is clear, indeed, that contiguity to market has already become of comparatively little importance. At no distant period means will be afforded for bringing the most remote and secluded districts fairly into competition with those that are most favourably situated. The productive energies of both will, in consequence, be more fully developed; nor is it easy to conjecture what the result may be.

It is, notwithstanding, supposed by several, that if prices should decline still further, or even if they continue at their present level, production will be seriously checked. But the previous statements show that there is really nothing to warrant any such conclusion. Hitherto despite the heavy fall of prices, improvements have been prosecuted on the most stupendous scale; and the fair presumption is, speaking generally, that they will continue to be prosecuted even though prices should fall still lower. It is difficult to estimate the influence that necessity and a desire to preserve one's place in society have in making men inventive and economical; or to specify the point at which production will be contracted by a lowering of prices. In 1823 and 1824, when Upland or Bowed Georgia cotton brought in Liverpool from 6½d to 10½d per lb., many of the most intelligent persons, both in this country and in America, were firmly of opinion that the price would not indemnify the planter, and that the production of cotton would certainly decline. This notion was in fact, at the bottom of the great cotton speculation in 1825. Experience has since shown the utter groundlessness of the opinion; for though the price of cotton has not risen, except now and then, for a short time, during the interval, the exports of cotton wool from the United States, which, in 1824, amounted to 142,369,665 pounds, had increased, in 1834, to 384,717,907 pounds, exclusive of a greatly increased quantity used at home.

Of course we do not mean to say that the price may not fall so low as to check improvement; but certainly there is no evidence to show that we have already touched that point, or even come very near it. It should also be recollected that, notwithstand-

ing all that has been done, there is still a vast field for agricultural improvement in Britain. We showed in a former article (No 120, Art. 6,) that it was the opinion of practical men of the highest respectability, and intimately acquainted with the state of agriculture, that the raw produce of the island might be well nigh doubled without any greater proportional expense being incurred in its production. And any one who has ever travelled through the country, or has compared the state of the Lothians, Northumberland, Lincoln, Norfolk, and other well farmed counties, with very extensive districts in the south and west of England, and with Wales, will be satisfied that the above is anything but an exaggerated statement. It is singular, indeed, how very backward many districts are, as compared with others. In numerous counties, four and five horses and two men are still employed to do that which is better done in others by two horses and one man; and in many parts the drill husbandry can hardly be said to be introduced. This shows that we are possessed of vast capacities not yet brought into activity, and that the career of improvement may be continued for an almost indefinite period.

It is not, however, to be doubted that there is at present considerable distress amongst landlords whose estates are embarrassed, and amongst tenants holding under leases commencing when prices were higher, and whose rents have not been sufficiently reduced. But admitting all this, still the extraordinary progress of agriculture proves beyond the possibility of doubt, that, speaking generally, the capital applied to the land has not been diminished, whilst it has gained immensely in productive efficacy. The distressed classes, however, are sufficiently numerous and important to entitle their representations and petitions to the favourable consideration of Parliament; and to whatever relief may be given them consistently with a due regard to the rights and welfare of others. But this, we are afraid, will not amount to much; and we are sure that its amount will not be increased by the formation of local or general Associations. Ministers needed no such stimulus to induce them to do all in their power to benefit agriculture. But by forming Associations, and affecting to dictate to Parliament, the attention of all classes is made alive to the proceedings of the agriculturists—every thing they may propose, even though it were not really objectionable, will create suspicions in the public mind, and be exposed to a severe scrutiny; at the same time that an unfounded prejudice is excited against the whole class. This is the more to be regretted, seeing that the vast majority of the agriculturists have nothing whatever to do with these Associations. They are got up by a few jobbing individuals anxious to burrow in the snug situations they may be made to afford; and are principally patronized by embarrassed landlords, who are much more anxious to discover a mode by which they may evade payment of a part of their debts, than of alleviating what they are pleased to call the distress of the agriculturists.

The reduction or repeal of the malt tax, and the degradation of the standard, seem to be the principal measures recommended by the agricultural agitators as specifics for the distress of the farmers. But it cannot surely be necessary for us to enter into any lengthened statements to show that neither the one nor the other can be entertained by any government. The malt tax is one of the most productive and least exceptionable of our taxes. It is impossible indeed to specify any tax against which some plausible objections may not be urged; but we defy any one to show how FIVE MILLIONS a-year may be raised with

so little injury either to the agriculturists, or to any other class, as by the malt tax. The question, it will be observed, is not between the malt duty and no duty. In the present state of things it is impossible to repeal, or even materially to reduce the malt duty, without imposing some other duty in its stead; and no substitute has been, or can be pointed out, that would be so little injurious. It is said that no efficient reduction has been made in the malt tax for a very long series of years; but there is not, we take leave to say, the shadow of a foundation for any such statement. The beer tax was to all intents and purposes a malt tax; as completely so in fact as if it had been laid on malt. Now this tax, which produced annually about *three millions*, has been repealed; and, adding to it the 8s a-quarter deducted from the direct duty on malt in 1823, it may be truly affirmed that the malt duty has been reduced at least *sixty* per cent within the last few years. The duty, besides being moderate, is fair and equal. It is paid by the consumers of beer, and by none else, and no one can say that it interferes in any degree with the proceedings of the barley growers. The case is very different indeed with the duties on glass, on paper, and on various other articles. If the situation of the revenue will admit of taxes being taken off, it is clear that those ought to be selected, in preference, for repeal or modification that are most injurious to industry; and if so, the duties on glass, on paper, on timber, and a dozen more, will be repealed before any one thinks of interfering with the malt tax.

Something might have been found to say in favour of the proposed repeal or modification of the duties on malt had the price of barley been depressed, as compared with that of wheat or of any other species of grain. But every one knows that it is quite otherwise. Barley bears at present, and has borne for several years past, a higher price, relatively to wheat, than it did formerly; and is consequently, where the soil is suitable for both crops, the most advantageous. This shows that it is not injuriously affected by the duty. The barley growers have, in truth, no reason whatever to complain. If there be any class more depressed than another it is the cultivators of wheat on clayey lands. The comparatively high price of barley, and the high prices obtained for sheep and wool, of which the barley growers furnish the largest supplies, render their situation the most prosperous of any class of cultivators. And it would be preposterous to think of relieving the pressure on the wheat growers by giving a bonus, not to them, but to their more prosperous rivals.

We shall not practice on the patience of our readers by dwelling on the folly and flagitiousness of the proposal for enfeebling the standard, or, which is the same thing, for tampering with the currency. No government, that has the smallest respect for either public or private honesty, will ever give the least countenance to any such project. A degradation of the standard would, we admit, be beneficial to landlords whose estates are encumbered—but how? By enabling them, with the connivance of the state, to cheat their creditors; that is to pay a debt of 1,000l, with 750l or 500l. Any legislature which should sanction such a scandalous breach of faith, which should vitiate the measure of value—the standard relied on in all contracts—that one class of its subjects might be benefited at the expence of another, would basely betray its duty, and would deserve to be suppressed as a nuisance. It is to no purpose to say that the value of money was enhanced by the return to cash payments in 1819. That return took no person, or at least, it ought to have taken no person

by surprise. It had been declared in fifty acts of Parliaments, that cash payments were to be resumed within six months after a definitive treaty of peace. Every loan had been contracted under this condition; and the legislature might as well have declared that it was not bound to pay the interest of the debt, as that it was not bound to pay it in coin of the standard weight and purity.

It was impossible, therefore, for the legislature to have refused returning to cash payments; and, whatever may have been the influence of that measure at the time, is now matter of history, and is beyond the reach of human power to obviate or repair. Supposing that it raised the value of money, that money has been the standard during sixteen years. Nineteen out of every twenty of the existing contracts, obligations, and estimates, have been framed and entered into with reference to it; so that, whether enhanced or not at the outset, to interfere with it now would not be to repair injustice, but to commit it afresh—it would be to rob and plunder the present race of creditors, on pretence that the individuals who happened to be creditors sixteen years ago, had gained an undue advantage!

But we take leave totally to deny that the return to cash payments made any sensible addition to the value of money. If we ask where are the proofs of its having done so? we are referred to the fall that has since taken place in the price of most articles. But this is plainly no proof at all. Prices may no doubt be reduced by a rise in the value of money; but they may also be reduced by a decline in the cost of production; and we contend that this has been the sole cause of the entire fall that has taken place since the resumption of cash payments. We defy the advocates of the opposite opinion to specify a single article, either of domestic or foreign growth or manufacture, that has fallen in price since 1819, the fall of which may not be satisfactorily and completely accounted for by circumstances peculiar to its production or supply, or both, independently altogether of variations in the value of money. We unhesitatingly affirm, there is no such article. The fall that has taken place in agricultural and in colonial products, in manufactured goods, &c., is entirely ascribable to improved and cheaper methods of production; to the abolition of monopolies, the reduction of taxes, the opening of new and more abundant sources of supply, or to some such cause. Not a tittle of evidence has been or can be brought to show, that the fall of prices has been owing, even in a solitary instance, or in any degree, to a rise in the value of money. This is an opinion for which there is no foundation whatever—a phantom conjured up, that a wholesale robbery might be perpetrated, under cover of the speculation and alarm caused by its appearance.

It is needless to say anything about legislative protection. In this respect, the omnipotence of Parliament has been exhausted in behalf of the agriculturists. Protection cannot be carried farther than monopoly—and that they have enjoyed for these four years past. We have always said, that even the absolute exclusion of foreign corn could do the agriculturists no real service—that it was merely amusing them with hopes of advantages never to be realized; and if they be not now convinced of the truth of this, they must be as impervious to the evidence of fact as they have hitherto been to argument.

It is not, therefore, in the power of any government, however disposed, materially to relieve the pressure on the agricultural classes. But whatever it can do will no doubt be done. A commutation of tithes, effected once for all on a fair principle, would

be an important and a valuable measure; but, assuredly, its tendency would be to reduce, not to raise the price of corn. We incline also to think that the duty on the sale of landed property by auction ought to be repealed. Its amount is not very considerable; but, as Dr. Smith truly stated, it comes entirely out of the pockets of those who are least able to bear it,—that is, of those who are obliged to sell. But it is upon arrangements amongst themselves, that the agriculturists must mainly depend for relief from any real grievances under which they may at present suffer. Where necessary, rents ought to be reduced and they ought in all cases to be rated in corn or other farm produce, and made convertible into money, at the current prices of the day. But we protest against all indiscriminate plans of reduction. No two occupiers of any estate are in exactly the same condition; and in reducing rent, care ought always to be had that industry, skill, and economy be not discouraged to pamper sloth, routine, and extravagance. The statements we formerly laid before the public (No. 120, Art. 6) are more than sufficient to show, that, in many parts of the kingdom, the landlords ought, before reducing rents, to try what may be done by enforcing improved and more economical modes of management. In the southern counties, especially, there is great room for this. No farmer who employs teams of three, four, or five horses, where two would suffice, is entitled to have one farthing taken from his rent. If he ask it, his landlord may reply, 'Do as the farmers do in other parts of the country—employ two horses instead of four—do more work by the piece—cut down every superfluous expense—endeavour to introduce the improved systems of other counties—and if, after you have done this, the farm be still too dear, I shall willingly make the necessary abatement.' No landlord ought to go farther than this. If he do, he will act injuriously for himself and the public interests, and will be justly responsible for the continuance of practices that are a reproach to the agriculturists of the present day. Something of this sort *must* be done, otherwise the rental of all unimproved and expensively managed farms must come down to the level of 1792. The agriculturists need not cry out for help to others. No stranger can render them any material assistance; but they may help themselves. And, till they have put forth all their energies, reformed whatever experience has proved to be defective in their practice, and pared down all unnecessary expence, they have no right to expect that their complaints should meet with much either of attention or of sympathy.

Should the next, or any succeeding harvest be a bad, or an indifferent one, the prices of corn would rise, it might be, to double their present elevation. That, however, would no way invalidate any of the previous statements as to the extraordinary improvement of agriculture. We believe, too, that it would make an end of the Corn Laws. At present they are virtually suspended by the wonderful increase of our home supplies. But, if they ever again become efficient, assuredly they will not long survive. The manufacturing and commercial classes have become too numerous, intelligent, and powerful to submit to pay a heavy tax on their food, not for any purpose of public or national utility, but for behoof of the agriculturists.

#### HOW TO DESTROY THE RED WORM.

An intelligent farmer has informed us that he has tried many ways to destroy the red worm, but none has proved so effectual as *salt*. Lime, he observes, does not mix sufficiently with the soil when first ap-

plied, and it is only when in a caustic state that it will destroy these worms. One ton of salt per acre is necessary for this purpose, and should be sown on the land a month at least before the crop that is to follow. If on old ley, it is better not to apply the salt on the first year of being broken up, for the worms do not leave the sod until the vegetable matter it contains, and on which they feed, is decomposed; therefore, they do but little injury to the corn crop the first year. However, on the land being pulverized the second year, the salt will have full power to act, as it will mix through the soil and corrode both vegetable and animal matter.

We have heard of some experiments made with salt for this purpose, which have not succeeded; but we must suppose the quantity applied was not sufficient. We also think lime may be advantageously used for the destruction of the red worm, if laid on the land fresh slacked and in dry weather, after being well fallowed for late turnips or wheat. The application of salt is, however, cheaper; and on land on which lime would not be beneficial as a manure, the former might act better in this respect also. On soils that will admit of a light paring and burning, this operation will tend much to destroy the red worm; but the land should be well pulverized afterwards, in order to mix the ashes produced with the part not scorched. Potatoes or turnips should follow this preparation, and there is little risk of the corn crop afterwards. On spongy or porous soils, an admixture of marl, limestone, gravel, or chalk, will be found advantageous, as they will consolidate the land, and make an application either of lime or salt more efficacious.—*Irish Farmer's Magazine.*

#### A MARE STARVED TO DEATH FROM DISEASED JAW-BONES.

BY MR. W. A. CARTWRIGHT, WHITCHURCH.

(From the *Veterinarian*.)

A cart mare, between twenty and thirty years of age, the property of Messrs. Cross and Jagger, in this town, began to quill her food when out at grass; she would nip it off very well, but, when she began to grind it, she dropped it from her mouth. She continued to do so for about a fortnight, until the field was nearly covered with quids, when she died from sheer want. Whilst she was alive there was the peculiar smell from her mouth that indicated diseased bone; but, after carefully examining her mouth, I could only detect two ulcers of the cheek opposite the last of the grinders, one on each side. These ulcers were dressed with a solution of nit. of silver, and the teeth rasped.

POST-MORTEM APPEARANCES.—The ulcers on the cheeks were of little consequence; but, for about an inch beyond the posterior molar tooth, on each side of the inferior jaw, the upper surface of the continuation of the last alveolar cavity was quite ulcerated through, and the bone carious for an inch down each surface: the evil was evidently produced originally by the upper jaw-bone rubbing against it. The teeth were worn down almost to a level with the jaw; but the ulcerated parts did not come in contact so much when the jaws were opposed to each other as when they were moved from one side or the other in the act of grinding. There was no other disease to account for her death, for every part was perfectly sound, except much attenuated. She was starved to death.



## BONDED WHEAT AND FLOUR.

TO THE RIGHT HON. THE LORDS COMMISSIONERS OF HIS MAJESTY'S TREASURY.

THE MEMORIAL OF THE CHAMBER OF COMMERCE, IN THE PORT OF PLYMOUTH, respectfully SHEWETH,

That there are at the present time about five hundred and sixty thousand quarters of foreign wheat, and one hundred and thirty-four thousand barrels of foreign flour under the king's lock, which were imported in expectation that it might be required in aid of the growth of this kingdom. Contrary, however, to former experience, the produce of the United Kingdom, for the last four years, has been more than equal to the consumption, and chiefly from this cause, and the restrictive enactments which exist, this foreign wheat and flour have been lying, most of it for several years, in warehouses, involving consequences most ruinous to the importers, by granary rent, labour, deterioration of quality, and decrease in price, which, with interest of money, amount in some instances, nearly to the value.

That those results are mainly to be attributed to the above causes, which prevent the manufacture in the United Kingdom of foreign wheat into flour and biscuit, for the purposes of exportation only, the duty thereon being prohibitory, (although it is permitted to be done in the islands of Guernsey and Jersey, &c. and in the British Colonies,) thereby driving a profitable and legitimate branch of manufacture and of commerce, out of the hands of the people of this country, who have to bear the taxes and burthens.

That for several years past, there has been a large trade carried on from the ports of Dantzic, Hamburgh, &c. from the United States of North America, and from the British Channel islands, for supplying the British West Indies, Newfoundland, and South America, with flour and biscuit, and at the present moment, encouraged by the prohibitory operation of our laws, large additional steam-power mills are erecting in those countries, for increasing the supply of those articles for exportation.

That it may be presumed those injurious restrictions to which we have adverted, originated, and are continued, from the opinion, that the permission to grind foreign wheat in this country, may operate prejudicially to the agricultural interest: but your memorialists believe this is entirely a mistake, and that the contrary is the fact, as will appear from the following considerations:—

*First.*—As there is a large capital locked up in bonded wheat and flour, there is no doubt, but were it liberated, a great proportion of it would be laid out in the purchase of English grain; to which the present low prices would be a strong inducement, and thus, by taking the surplus out of the market, tend to increase the price of English wheat.

*Secondly.*—The knowledge that there is such a large stock of foreign corn in hand, induces the farmer at times, to push his produce prematurely on the market, from the fear that in the event of a rise in price, from any disaster happening to the crops, or other contingency, the heavy stock of foreign wheat, &c. will be brought forward, and depress prices.

*Thirdly.*—It is well known, that when British ships go to Hamburgh and other ports for flour and biscuit for the supply of our colonies, they, at the same time, take considerable quantities of beef, pork, butter, and other agricultural produce, and articles of foreign manufacture, from the same places, thus depriving the British agriculturists and manufacturers, of their accustomed demand for these articles.

That it appears to your memorialists the remedy for these evils is simple, and easy to be carried into practice, and for which there is a precedent in the Grinding Act of one thousand eight hundred and twenty-four, (5th Geo. 4th, cap. 70,) the outline of which is as follows:—For every specified quantity of foreign wheat delivered out of bonded warehouses, there shall be a commensurate quantity of flour returned in a limited specified time, into bond, for the purpose of being exported. To effect this object it is not necessary that the produce of the identical parcel of wheat taken out, should be returned, but flour made from English wheat might be substituted for it. The quality to be equal to fine flour. The operation to be under the superintendence of the customs, and confined to the principal sea ports. The whole to be subject to such checks and regulations, and protected by penalties, as will effectually prevent any fraud.

That a similar provision should extend to the flour now in bond, which not being fit for bread by reason of its being out of condition, might be advantageously used in paste and starch, for our manufacturers, and other purposes, and the same quantity of British flour replaced in bond for exportation.

Thus, not only without injury to the British agriculturists, but with positive benefit to them, might the holders of foreign wheat and flour, be relieved from the pressure of a burthen, which, in many instances, threatens to deprive them of its whole value; and if a permanent measure, facilitating the manufacture of foreign wheat and flour were found to be desirable, after the result of the experiment on that now in bond were ascertained, it might become an important public benefit.

That the United States of America export annually, upwards of a million barrels of flour, much of it to British dependencies, and to places that would take these articles from Great Britain if we could supply them on equal terms;—also that at the present moment, bonded wheat is thirty-five to forty per cent. lower in England, than wheat of the same quality in the United States,—and that freights from hence to the West Indies, and Brazils, where ships go mostly in ballast, are always at a less rate than from America:—all which evidently shews that England could not only supply those colonies on equal, but on considerably lower terms than is now done.

The circumstances at the present moment are particularly favourable for having this legitimate branch of business restored to this country; and whilst benefitting its colonies, and its shipping, would be adding to the employment of capital, and of productive labour.

Your memorialists therefore, respectfully, but most earnestly request, that your lordships will be pleased, immediately, to take this important subject into your consideration; and by introducing a bill into parliament, sanctioned by his Majesty's Government, facilitate its passing into a law;—thereby relieving your memorialists, and others from a heavy loss arising from the circumstances herein stated, and allowing this nation to participate in a branch of commerce, from which they are, at present, as your memorialists conceive, unjustly and unwisely excluded.

MORLEY,

Dated Plymouth, 29th of Jan., 1836. CHAIRMAN,

In transmitting the annexed copy of a Memorial which has been presented to the Lords of the Treasury, the Committee of the Chamber of

Commerce at Plymouth, respectfully submit to all interested in the question, the following additional observations:—

That the measure sought for, being confined to the Wheat and Flour now in Bond, it would serve as an experiment, by which the working of such a system would be ascertained without danger to any interest; and if not found to answer, it need not be carried further; but if it succeed, it might put this Country in permanent and successful competition with the Americans and other Foreigners, and the Merchants of the Islands of Jersey and Guernsey.

A strong argument in favour of the measure is, that it is strictly analogous to that which has been a considerable time in operation, with the most beneficial results, for refining sugar, smelting of Foreign Copper Ore, and sawing of Foreign Timber.

The manufacture of Foreign Wheat in Bond for exportation is allowed in France, and now proceeding there with considerable activity; and if the prohibition should be continued in this country, the Wheat in Bond here will probably be sent abroad to be manufactured, and we shall exhibit the singular anomaly of throwing into the hands of Foreigners an advantageous branch of business, which might be carried on by ourselves with manifest advantage to many classes of the community, and with injury to none.

The principal, but as it appears to us, very weak objection to the measure, is, that it would be liable to fraud, by the passing of Flour for export, of a quality inferior to that prescribed by the regulation but it is submitted, that there is no foundation for this apprehension.

The very circumstance which gave rise to it, was, we believe, a single attempt to pass inferior Flour, which was instantly detected, and it served to shew, that detection was inevitable, and that there could be no prospect of advantage proportioned to the risk.

Besides, the bare possibility of fraud is no argument against the enactment of a just and necessary law,—the laws of the Customs and Excise are very liable to evasion, as proved by daily experience, but the legislature does not, therefore, cease to enact them. Let the penalties, as regard corn, be severe and rigidly enforced, and there will be no frauds of importance.

An argument has been put forth in opposition to the plan, that it would interfere with the Irish wheat growers and millers, who might otherwise derive benefit from an export flour trade. Now, to say nothing of the selfish character of this opposition, its absurdity is conspicuous. For how can the Irish miller, with the average cost of his Wheat at 40s to 50s per qr, ever hope to compete, successfully, with the millers on the continent and in the Channel Islands, with their wheat at 25s to 30s per qr? Is it not obvious that the Irish millers could carry on a lucrative export trade by grinding Foreign wheat while there is no chance for them with wheat of their own Country? In short, this opposition seems to be calculated to embarrass and injure the holders of Foreign wheat in Bond, without any prospect of advantage to the classes whose interests are pretended to be advocated: and if any advantage had been to be derived by Irish millers from an export trade, why have they not availed themselves of it in times past, particularly of late, when the prices have been so low?

It is a strong fact in confirmation of what has been stated in the Memorial, that in the course of last year, about 25,000 barrels of flour, in addition to a considerable quantity of biscuit, were sent from

Dantzic alone to Britain, which was doubtless, re-exported to our Colonies; and preparations are now in active operation for greatly extending this branch of commerce in Dantzic, as well as in Hamburg and the Channel Islands. Thus we are supinely allowing the Inhabitants of other Countries to enjoy a lucrative trade, which might be easily carried on by ourselves, with manifest advantage.

*Plymouth, 10th February, 1836.*

## TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—As one of the most important measures that ever occupied the attention of the Legislature, as regards not only the interests of the owners and occupiers of land, but also the interests of those who consume its produce, is now about to occupy the attention of Parliament, having been introduced by Lord John Russell to the House of Commons on Tuesday last, by a Bill for the Commutation of Tithes in England and Wales, I beg leave to offer a few observations on some of its leading features, as far at least as can be gathered, of the nature of its provisions, from the public prints.

It may, perhaps, be considered somewhat premature to enter on a discussion of its merits before the Bill is printed and its provisions known, but as my observations will apply chiefly to the principle and machinery of the measure, and not to its detail, I feel the less hesitation in stating thus early my opinions, which if they only have the effect of calling forth, from the better judgment of others, their own refutation may not prove entirely useless; and I shall be most glad to find that the volume of the Bill when published, turns out to be more generally satisfactory than its preface appears to warrant.

I freely confess myself to be an enemy to the whole system of tithes, as an ecclesiastical demand; I disown all authority of civil government in matters of religion, and I submit to the payment of tithes and every other ecclesiastical impost, not as a moral obligation, as in the case of rent or any other voluntary contract, or contribution levied by the state for the benefits of civil government, in which all participate; but precisely as I would surrender my purse to a well-armed highwayman, as the least of the two evils. Civil government I take to be, the condensation of the public will by a systematic delegation for public good—to govern the *actions*, and not the *thoughts*, or *consciences* of men—to regulate the affairs between *man and man*, not between man and his *Maker*—to legislate for *this* world, not for the next. Religion is not an affair to be managed by proxy, as there can exist no relation between the proxy and the principal. The utmost duty of the state in this respect is to afford *equal protection*: all beyond this is impious and unwarrantable usurpation; neither can it be defended on the ground of *expediency*, as it will only tend to defeat what it affects to defend, the best interests of religion. The present state of both England and Ireland at this moment is, I think, strong evidence of the truth of this position.

Under these impressions I can never feel fully satisfied with any measure which has not for its *ultimate* object the *entire and unqualified extinction of tithes*. But, nevertheless, I should be inclined to hail as a great boon any intermediate plan, which appeared at all calculated to put an end to the evils of the present system, which are so ruinous to the interests of agriculture and injurious to the cause of religion;

particularly if it appeared at all calculated to facilitate a fair and final settlement of this great question.

As Lord John Russell appears to have confined himself to the question of tithes, simply as tithes apart from any consideration of appropriation or other ecclesiastical or political views, it presents itself chiefly as an agricultural question; or, in other words, an adjustment between the land-owner and the tithe-owner—between the *one-tenth* and the *nine-tenths*.

Now, although I have always looked up to Lord John Russell as being honestly anxious for a considerable reform both in church and state, and should have been glad to have seen his popularity increased by a satisfactory measure respecting tithes, yet I must confess that his plan of commutation appears to me to be defective both in principle and machinery, not calculated to afford the relief it promises, in many respects utterly impracticable, and will leave many of the objections to the system just where it found them.

I dare say we (the tithe-payers) shall be likened to the soldier at the halberds, very difficult to please: so said Lord Althorp when the Deputation from the Central Tithe Association pointed out what they considered to be the defects of his Commutation Bill. "Three or four different measures," said his Lordship, "have been proposed, all of which have been rejected." And, why is it? For this plain reason; that, like the cat-o'-nine-tails, let the drummer hit how and where he would, we feel the tithe as a most galling and intolerable scourge, and which neither of the measures proposed was calculated to mitigate, much less remove.

Some tithe-payers say, "Let us not be over nice lest we get nothing; let us take what we can get, and be satisfied." What! are we then asking some great favours? By no means. Tithes are a grievous wrong; the public voice *demand*s that the wrong shall be redressed. Then why do right by halves? It ought not to be forgotten that this is to be a final measure. As an abolitionist, I should say, the longer commutation is delayed the better. The continued depression in the prices of the production of the land, and the accumulation of public animosity towards the injustice of tithes, will in a very short time render any scheme of commutation unnecessary, by settling the whole question at once.

Lord John Russell is reported to have said, "There are two things to be borne in mind: the one is, the principle upon which we propose the settlement of this question; the other, the machinery by which it is intended to carry it into effect." His Lordship, however, immediately turns his matters the other way foremost, and sets his machinery before his principle. "I propose," continues his Lordship, "in the first place, that a Board of three Commissioners be appointed, two to be nominated by the Crown, and one by the Archbishop of Canterbury." Now, this brings me to one of my great objections:—

This professes to be altogether a *temporal* measure; every consideration of any thing, even approaching to the spiritual interests of the church is studiously avoided; then what shadow of pretence can there be to trouble the archbishop in this matter, particularly with the lay tithes? Is not the king the proper and ostensible temporal head of the church? or, to speak more literally, "the only temporal head under Christ." I should have thought a sufficiently powerful representative. Now it does not appear to me that out of this trinity of commissioners, the church will, at any rate, have the best two in three.

Many of the worst political evils with which nations have ever been afflicted, have arisen from the superstitious weakness of kings, operated upon by the subtlety of designing priests; take the origin of tithes in England as an instance, and as this is to be a permanent measure, although there is not the slightest danger from present parties, it may be well to be on our guard for the future. If I am not greatly deceived in my ideas of the mechanism of the measure, this great defect in the first motion will be likely to run through the whole gear, and render it not at all calculated for the manufacture of measures of justice.

Next comes the principle; and here lies my principal objection. If this is to be an adjustment between the landowner and tithe-owner—between the one-tenth and the nine-tenths, as a *permanent* measure, (mind this,) what can form so correct a basis as the inherent *value*, the fee-simple, the rental of the land. Oh, but, says Lord John Russell, "It is our intention to interfere as little as possible with existing interests. It seems obvious," continues his lordship, "that the principle should be, to take the annual value of tithes, and have it commuted for an equivalent in some other species of property less objectionable in its manner of payment. Tithe is a claim on the *produce*, and bears no relative proportion to *rent*, and therefore it would be unjust to change the claim into another which was never contracted for nor calculated upon."

If I rightly understand this part of the proposed measure, the prospect of relief is very obscure. If "equivalent" means *equal value*, the relief will be from paying in money to that of paying in meal. As a tenant I should consider the measure scarcely worth a straw; and the landowners would be better off without it.

Let us just apply it to the parish of East Church, in this county, where the tithe-owner has virtually ousted the landowner of his inheritance. The overgrown claim to tithes has rendered the land not worth a shilling to rent. The one tenth has swallowed up the other nine. The bill will *relieve* the tenant by allowing him to pay—just the same. And not only so, but it will leave his goods and chattels liable to the distress warrant of the tithe man; no very desirable equivalent for the tithe-waggon. It will indeed *relieve* the owner of the land in such cases of all his earthly troubles and incumbrances for ever, except the possession of the title-deeds.

I cannot see the weight of Lord John Russell's objections to taking rent as a basis of commutation; and as to taking a retrospective estimate of value for seven years past, I am quite satisfied it is altogether impracticable. Tithe will still be a tax on capital. To use his lordship's own words, it will still be "a penalty upon capital and industry, and the greatest punishment upon those who lay out the greatest capital and employ the most labour; and according to the spirit of the tithe-law which appears to suppose cultivation a crime, it will go still further, as it will be an infinite punishment for a finite offence. It ought to be borne in mind that this measure proposes to give a *certainty* for an *uncertainty*. Tithes are no inheritance any more than a milk-walk, or a deputation to fish or kill game; a sort of indefinite nondescript privilege, to "have and to hold" a tenth of such produce as the will of the cultivator allows them to get hold of; a claim which has been encroaching from time to time from the tenth of the *increase*, to the tenth of the gross produce; and, after having shifted the burden of supporting the poor, repairing the churches, and the whole weight of taxation on the nine-tenths, till the string has been strained too tight even for its own purpose, like the toad in the fable, it has been

swelling and swelling, till there was great danger of bursting, and then is to be settled by an "equivalent!"

Lord John Russell observed, that it would be unjust for the law to convert the claim which was now on the produce, into a claim on the rent; but this would go far towards upsetting his principle if applied to it; for here is a precarious, undefinable claim which has become so universally unpopular that its future existence is in a state of jeopardy, converted into a permanent claim, which is to have precedence of all others, with power to seize and enter on the land; so that, in future, the claims on the land are to stand:—Church, No. 1; Poor, No. 2; and, if there is any thing left, (which there would not in such cases as that of East Church) the Owner will come in No. 3.

I do not think with Mr. D. W. Harvey, that it would prove any concession to the landed interest, because 25 to 40 per cent. off the gross amount of tithes for the last seven years, is not more than adequate to the depreciation at the present time, with little probability of an advance, except from short crops; but I agree with him that it promises no relief to the consumer, on the present scale of cultivation, but there are thousands of acres now lying comparatively fallow, which would spring into cultivation directly it became released from tithes as a claim on its produce. The additional charge on hop land, gardens, and orchards, is an evident tax on what is put into the land, rather than on the land itself. A great proportion of hop land is very little, if any, more profitable to cultivate, on an average of years, than land used as sheep-walk, on account of the great outlay required, and the uncertainty of the crop; and market garden and other cultivation requiring a great portion of labour, is just what the legislature ought to encourage. It ought to be at a premium instead of a discount.

Levisham,  
Feb. 18, 1836.

Your's respectfully,  
GEO. COLGATE.

### TO THE EDITOR OF THE FARMER'S MAGAZINE.

MR. EDITOR,—I beg through the medium of your very useful and widely circulated miscellany, to seek for information on a subject of general interest; although it may not be strictly speaking of an agricultural character. I mean the valuation of property, with a view to its assessment, for the relief of the poor &c.

As my present application arises out of a particular case, I will beg leave to state the circumstances of it, and trust that some of your intelligent correspondents will be kind enough to favour me with replies to the following questions in your April number.

The Parish I have in view is principally agricultural, and contains about 4000 acres. Its population is nearly 2000, and includes all the professions,—the different kinds of tradespeople, &c., &c. There are Inns and Public Houses in the place, and Fairs and Markets are periodically held there. There is consequently a demand for the land immediately contiguous to the town, particularly the small inclosures which let for a much higher rent than that occupied for farming purposes only.

The first question I would beg to propose is, whether this land usually called accommodation land, should be valued at its actual rental, supposing the same to be done with the farmer's land, or only at the same rate as that of a similar quality occupied by the latter?

It will happen that land which might be let as accommodation land is included in farms, and of no more value to the occupier than the rest of his farm, would it in that case be proper to value it as if so let, or should it be assessed only at the same rate as his other land?

My next enquiry respects the houses, and taking them at their clear annual value, after allowing what may be necessary to keep them in repair, I would beg to ask what allowance or deduction should be made from such annual value in consequence of their being perishable property?

I apprehend that there are no statutory directions for the valuation of property for the above purposes? If that should be the case I should be glad to be informed of it.

I am, Mr. Editor, with much respect, one of your constant readers from the commencement of your Publication, and  
A RATE PAYER.

Lincolnshire, Feb. 19, 1836.

### ON ROT IN SHEEP.

MR. EDITOR,—In your Journal of last week, I observed a quotation of a very clever article upon this subject; and it is greatly to be regretted that the country press does not more frequently devote a column to such decidedly useful information. It is not in order to find fault with the learning and research which that article displays, or to smile at the simple remedy of the Lammermuir farmer, that I have ventured on these few remarks; but because I am convinced of the great justness of them, and that if judiciously carried into effect, in a short time we should hear nothing of rot. Drugs, I am convinced, from a fair experience, and by repeated trials which many respectable farmers in this county have kindly undertaken, are of no avail—or, if any, very little; because, when the disease is observable to us, it has attained a stage scarcely admitting of arrest; and if arrested, is generally effected by a change of pasture, and a return to dry food, which can receive very little assistance from medicine. With the idea of the writer of that admirable article to which I have alluded, that the rot has its cause in the butter cup (*ranunculus*), which is described as being excessively acrid, producing in some animals, soreness of the mouth and even capable of raising blisters, I am as little satisfied: for we often find sheep attacked with rot when feeding in pastures in which they by no means prevailed, but are absolutely scarce. The remedy of the Lammermuir farmer will furnish, I think, a better solution; and even its occasional failure assist us to a better, and perhaps, the right mode of application. He states that common salt is a decided cure. "The dose, an ounce and a half, given in three-fourths of an English pint of water, to a sheep with an empty stomach, for three or four mornings." The writer of the article above referred to says "Lime-water is also good; I have seen both given." Now putting aside the question of how flukes in sheep are generated, and worms in the animal frame universally, (which has hitherto puzzled, and will probably puzzle, the inquirer to the end of time,) let us rather pay attention to the method which Nature, in her unrestrained state adopts, to keep under this evil in the animal economy. Every observant individual must have been struck with the predisposition of animals, at certain times, to eat earth; but if they had observed more closely they would have discovered that they would not eat *any* kinds of earth, and that those they did eat, were in their nature ab-

sorbents, and capable, with the union of the acids of the stomach, of becoming salts, or such as in themselves contained alkali, which, in similar combination, would produce a still more active medicinal effect upon the system. This instinctive action must, at one time or other, have been observed by us all; but if these animals were left to themselves, and not confined by hedge row or dike, but were at liberty to select what and where they pleased, can we imagine, that that instinct which directs them to this substitute, should fail to lead them to some spot where the proper remedy might be found scattered with a more liberal hand and purer? Such an omission in nature we never find. Such a compelling to unnatural appetite is adverse to her rules. Look to those immense interminable pastures of Western America, out of which, in the course of a season, it would be almost impossible for the herds they feed to escape, were they so disposed. They are provided, here and there, with extensive salt licks, to which the animals repair, and around which they generally subsist, and the shores of lakes (salt lakes), in America, Africa, and India, attest to the periodical visits of all kinds of graminivorous animals who have no salt licks scattered amidst their native plains and forests, and if carnivorous animals are also found, shall they not also follow the instinct of their nature, and where the prey is, be collected together? That these are facts, no one doubts, and are closely connected with the instinct of animals, to eat earth, which we find to be the case at home. Now the question we have next to do with, is, the cause of this instinctive habit! and here it is the researches of chemistry will greatly avail us. It has been remarked, by a close observer, that "in some countries which are not blessed with mines of salt or salt waters, the necessities of the inhabitants have forced them to invent a method of extracting their common salt from the ashes of vegetables; and the ingenious Dr. Fothergill extracted plenty of it from the ashes of fern—a custom now commonly practised by the poor in many parts of this country, who use it as ash balls as a substitute for soap. But the experiments of Kirwan and Dr. John, of Berlin, have most satisfactorily assured us of the presence of alkali in grasses, to an extent that perfectly astonishes us: and were it not that it would be out of place here, many quotations of their labours and of others might be made with much interest and profit. One thing may be noticed, that vegetables contain most alkali just before they seed. Hence it seems to follow, that much of the nourishment of vegetables, as food for animals, depends on the presence of alkali or salts: and that such should be the case, is in perfect agreement with modern discoveries. Mr. Boyle discovered common salt in blood and urine, and "I have observed it," says Dr. Brownrigg, "not only in human urine, but also in that of cattle;" and he further remarks, "the dung of such animals, as feed on grass or grain, doth also contain plenty of common salt." It therefore may be concluded, that if it is necessary to the animal economy, we should find it in animal food, and this we find to be the case. And how necessary it is to the animal economy, we scarcely need the discoveries of modern science to tell us, when we reflect on the instinctive efforts which the whole of the graminivorous portion of the animal creation make to obtain it. But why, you ask, is this effort made? This was the original question, and the answer to me appears to be this:—1st. We find the rot prevail at those times and places where vegetation is most rapid and luxuriant. 2d. We find that a very rapid growth of vegetation is unfavourable to the formation of the salts necessary for graminivorous life. 3d. That

lacking it in their daily food, unless a substitute is found, the stomach, for want of a corrective, produces a depraved state of health favourable to the development of the disease, of which the appearance of flukes is but one, and probably one of the last stages. The method nature adopts to guard against this tendency to decay, by impregnating vegetation with salt, has been interrupted: and if the substitute instinctively sought for be denied, the consequence which we witness, I apprehend, must follow as cause and effect.

This view, I think, does not militate against the simple recipe of the Lammermuir farmer, nor is it opposed to the advantages we find in removing sheep from a rich, luxuriant pasturage, to dry food, gathered at the proper season, and naturally impregnated with salt, nor to their removal to drier land, where the growth of vegetation is slower, but the saline properties better prepared, all of which we know are among the best methods of cure. But cannot some more efficient method of giving salt be found than directed above. Sheep are naturally fond of it, will lick it readily, and as I conceive the entire success of the remedy depends on its use in the earliest stage, at a period of disease when the best informed grazer could detect nothing amiss, I would suggest to place in each field a lump of rock salt, the larger the better, that sheep, with the first impulse, may run to it; or if rock salt cannot be had, the Spanish method, mentioned in your quotation of last week, will answer just as well. In another part of the field I would throw down a heap of chalk, and with these two remedies at hand, the instinct of the animal will correct the faults of nature, and oftentimes the thoughtlessness of man. I may be allowed to add, that there are some gentlemen in this county who have adopted this suggestion, and some have told me, with a success far surpassing their expectations; while others have gone so far to think that, if uniformly adopted, we might hear nothing more of rot.

Should these remarks draw further attention to the subject, or induce any to try the remedy, so cheap and of little trouble, they will have answered their end. Your obedient servant, B.

### THE CATTLE MARKETS OF FRANCE COMPARED WITH THE LONDON SMITHFIELD.

The Beef of the first quality at Sceaux sells for 53 centimes the  $\frac{1}{2}$  kilogramme, equal to about 3s 8d the stone of 8lbs. sinking the offal; the second quality at 48 centimes, corresponding to 3s 2d the stone. Cow Beef sells for 47 centimes, equal to about 3s 1d the stone of 8lbs.

Veal is sold at 74 centimes, equal to 4s 10d the stone, and Mutton for 69 centimes the  $\frac{1}{2}$  kilogramme, equal to 4s 6d the stone.

At Ruffee, Beef of the first description fetches 52 centimes the  $\frac{1}{2}$  kilogramme, equal to about 3s 7d the stone, sinking the offal; and the second description 47 centimes, corresponding to 3s 2d the stone.

Veal is sold for 72 centimes, equal to 4s 10d the stone. Mutton at 70 centimes the  $\frac{1}{2}$  kilogramme, equal to 4s 9d the stone; and Pork at 28 centimes the  $\frac{1}{2}$  kilogramme, equal to 1s 10d the stone.

The market of Maison Blanche quotes Beef of the finest quality at 54 centimes the  $\frac{1}{2}$  kilogramme, equal to about 3s 8d the stone of 8lbs. sinking the offal; and the second description at 50 centimes the  $\frac{1}{2}$  kilogramme, corresponding to 3s 4d the stone.

Mutton sells for 68 centimes the  $\frac{1}{2}$  kilogramme, about equal to 4s 6d the stone of 8lbs. sinking the offal; Veal at 72 centimes, corresponding to 4s 9d the

stone; and Pork at 26 centimes the  $\frac{1}{2}$  kilogramme, equal to about 1s 8d the stone.

From the foregoing facts, the following results are deduced, viz.—that

First—the extreme price of Beef, at Secaux, of the first description, being 3s 8d the stone, the currency and weight of France being reduced to that of England, which compared with the extreme price of Beef of the first quality at Smithfield on Friday last, which was 4s 8d the stone, shews a difference of exactly 1s per stone between the price of Beef at Secaux and at Smithfield; the price of Veal being equal to 4s 10d the stone, which as compared with that of London, which is sold for 5s 8d, shews a difference of 1s 2d per stone; and Mutton being sold for 4s 6d per stone, when compared with that of Smithfield, sold for 4s 10d, gives a difference of 4d per stone.

Secondly—Beef at Ruffee being sold for 3s 7d the stone, when compared with the Beef sold at Smithfield on Friday last, which obtained 4s 8d the stone extreme price, gives a difference of 1s 1d per stone; Veal selling for 4s 10d the stone, and that at Smithfield realizing 5s 8d, gives a difference of 1s 2d per stone; the Mutton fetching 4s 9d the stone, and the meat of the same denomination at Smithfield being sold for 4s 10d extreme price, gives the difference of only 1d per stone; and Pork selling for 1s 10d the stone, and that at Smithfield fetching 3s 4d per stone, gives a difference of 1s 6d per stone.

Thirdly—the Beef at the market of Maison Blanche being sold for 3s 8d the stone, when compared with that sold in London, gives a difference of 1s 2d per stone; Mutton being quoted at 4s 6d the stone, when compared with that of London, gives a difference of 4d per stone; Veal selling for 4s 9d per stone, when compared with that sold at Smithfield, gives a difference of 11d per stone; and the Pork fetching 1s 1d the stone, and that at Smithfield selling for 3s 4d the stone, gives a difference of 1s 8d per stone.

### A CASE OF ACUTE FOUNDER IN BOTH FORE FEET.

BY MR. GEORGE CLELAND, ROSEWELL, MIDLOTHIAN, N. B.

(From the Veterinarian.)

On the 2nd of August, 1831, I was called on to attend a black mare, of great value, that had been ill for about three weeks, the property of Sir John Hay, Bart. I found her pulse above 70 per minute, and her breathing was very laborious. Both soles of her fore feet were burst, and there was an oozing from the coronets. I was informed that she had been bled often, and poultices applied to her feet; her body was all covered with sores, particularly about her elbow, occasioned by striking with hind feet; her head and hock joints were also much cut and bruised. I dressed these parts with a mixture of oil and tinc-benzoin, made into a liniment with Armenian bole, in order to keep off the flies.

It was supposed, by every person that saw her, that she would never recover, but must die from her wounds and dreadfully emaciated state; but her owner being anxious, if possible, to save her as a breeding mare, she was, with difficulty, got into a loose box, lined or almost filled with straw: laxative and fever medicines were administered; and she was ordered to have little food besides mashes and gruel, and occasional clysters. I carefully detached both soles, and also the side walls of both fore feet, and every portion of the diseased laminae was well cleaned; and then, being washed

with a lotion of sulphate of copper, the whole was dressed with a digestive ointment, and large poultices of linseed meal applied, which were changed twice every day. She was attended by a son of mine (a pupil of Mr. Dick) for the first fourteen days and then delivered over to the care of a blacksmith, as we were at a distance of nearly eighteen miles from her.

January 1832.—I visited her for the last time: her feet were looking well, almost of their natural size, and having their proper concavity. She had not yet been out of the box. I measured both forefeet, and went to the blacksmith's shop, and had two fore shoes made for her, and shod her in the box; and when I led her out I was pleased and surprised to see how well she went. I was not content with this, but had her put into harness, and was still more pleased with her action and way of going. She is still living and doing well as a breeding mare; but she has a little of, what you gentlemen in the south call, navicular disease.

INCENDIARISM.—A placard, showing the loss of wages to labourers and others by the wilful destruction by fire of a stack, containing fifteen loads of wheat, has been circulated in the neighbourhood of Hedingham, and is well calculated to convince the unthinking incendiary—if a creature so dead to every human feeling be not impervious to common sense—that in making the midnight attack on his master's property, he is raising his hand against himself, and adding to the misery of his family, whose wants he would probably plead in mitigation of his cowardice and crime. The following is given as the probable loss of wages in the destruction of the stack containing the quantity above stated:—

	£ s. d.
Taking Stack into Barn .....	1 0 0
Threshing, at 2s 2d per quarter .....	8 2 6
Dressing, at 2d per quarter .....	0 12 6
Loading, carrying out, and unloading ..	1 17 6
Grinding and Dressing at the Mill, at 7½d per bushel of 5s the quarter.....	18 15 0
Making into Bread and baking 450 bushels of Flour, or 7,500 loaves of bread ....	15 0 0
Probable loss of labour to Thatcher on three loads of Straw .....	0 18 0
Attendance of Cattle in making the Straw into muck .....	1 10 0
Carting muck on to Land including stirring over and spreading .....	1 7 0
Total loss of Labour.....	49 2 6

This 49l, if circulated, as it would otherwise have been, amongst the labourers and tradesmen of a small rural parish, would have supplied many a comfort to the poor, who, when gazing on the rising flames, must necessarily have cursed the miscreant whose folly had deprived them of a meal. And what does the owner of the stack lose? Absolutely nothing. He is insured to the full amount; and the loss of the 7,500 loaves, together with the value of the bran and pollard, falls, as the placard observes, exclusively upon the poor. This simple statement, independent of the fears and apprehensions which ever track the steps of the guilty, ought to convince the incendiary that his crime admits of no palliation, and that its effects, however secretly the act may be perpetrated, will fall upon the heads of his own friends and family.

## COURT OF EXCHEQUER.

LANG F. SPICER.

This was a case under the bastardy clauses of the new Poor Law Amendment Act, the 57th section of which enacts, "That every man who, from and after the passing of the Act, shall marry a woman having a child or children at the time of such marriage, whether such child or children be legitimate or illegitimate, shall be liable to maintain such child or children as part of his family, and shall be chargeable with all relief, or the cost price thereof, granted or on account of such child or children, until the time shall respectively attain the age of sixteen, or until the death of the mother of such child or children, and such child or children shall, for the purposes of this Act, be deemed a part of the husband's family accordingly." The facts had been drawn up in the form of a special case, in order to save both parties unnecessary expense, and now came under the consideration of the Court in the special paper. The facts set forth in the case, were as follow:—That the plaintiff in 1832 had an affiliation order made upon him for the maintenance of a bastard child at the rate of 2s. a week. That sum he had continued to pay to the parish officer of Portsea, near Portsmouth, until March, 1835, some time after the passing of the new Poor Law Act. He was then advised not to pay any more, the mother of the child having married to a labourer in November, 1834. The plaintiff was summoned before the Mayor of Portsmouth, who decided that he was still liable to pay upon the order of affiliation. The plaintiff refusing to pay, the mayor issued a warrant for his apprehension, upon the execution of which, the money was paid, and an action for assault and false imprisonment was commenced against the mayor. The damages were laid at 10*l.* in the special case. It was admitted that the husband of the woman by whom the plaintiff was alleged to have had the illegitimate child, received 15s. wages, out of which he maintained his wife and his own child. The mother regularly received the 2s. weekly from the parish for the child born before marriage.

Mr. THESIGER argued the case for the plaintiff, and contended that the words of the act were too clear to admit of any doubt as to the meaning of the Legislature. By the 57th section of the act, the husband of a woman who had an illegitimate child at the time of her marriage was to be "liable to maintain such child as part of his family." That provision was clearly exclusive of all extrinsic aid towards maintenance. The act in question showed that the object of the legislature throughout was, to make the woman a more rigid guardian of her own chastity, by multiplying the pains of immorality. If they were to construe the 57th section to mean that the child should have a step-father and the putative father both liable for its maintenance, it would operate as a premium upon bastardy.

Mr. DAMPER, for the defendant, submitted that the 57th section of the act was not intended to have a retrospective operation. The order of affiliation made upon the plaintiff in 1832 was to last during the life of the child to a certain age, and the statute could not weaken the force of that order without express words to that effect. The husband of the woman was to be "liable to maintain," &c.; but the statute said nothing as to when that liability was to commence. It might be upon the death of the putative father, or, in case the woman had not been able to fix upon a father, or the father fixed upon had become insolvent.

The Court were unanimously of opinion that

under the act in question the putative father of a bastard child was not liable to be called on for any payment for the maintenance of the child, where the mother had, as in the present case, married, and her husband was in a condition to support it. The business of the Court was to interpret strictly according to the words and the legal meaning of the provisions of acts of Parliament. The mother's marriage to a man able to maintain her child, suspended the order as regarded the parish, which became exonerated, at least during the life of the husband, or until the child became chargeable to the parish.

Judgment was given for the plaintiff, with 10*l.* damages.

GREAT AGRICULTURAL MEETING AT FARINGDON.—A meeting of the landholders in the neighbourhood of Faringdon was held at the Crown Inn, in that town, on Tuesday, at three o'clock, T. M. Goodlake, Esq., in the chair, to draw up petitions to both houses of Parliament, praying that they would be pleased to appoint a Committee to inquire into the best means of relieving the distresses of the agricultural interest. The Hon. Chairman addressed the meeting, at considerable length, in a speech replete with eloquence and good old English feeling. After stating that he had considerable doubt whether the Corn Laws had ever been of any real advantage to the agricultural, whilst it was certain that they did materially retard the commercial interests of the country, he gave it as his decided opinion that *the remedy lay rather with the landlord than with the Legislature; and that a liberal reduction of rents would do more to bring back prosperity to the farmer than all the Parliamentary enactments in the world.* (This sentiment was most enthusiastically received by the meeting.) The hon. Genl. added, that *any landlord, who affecting to compassionate the distresses of his tenants, advised them to petition Parliament, and at the same time withheld from them the effectual remedy which he had in his power to bestow, did so merely to promote his own interests,* and reminded him of the monkey in the fable, who, under the pretence of benefiting the cat, thrust poor Grimalkin's paw into the fire in order to procure the chestnuts for himself.—Thanks were voted by acclamation to the Chairman, and the meeting, after signing the petitions, separated much gratified with the proceedings of the day.

"MONEY MAKES MONEY."—This homely, though most true adage, was never more clearly exemplified than in the late great advance in cask butter. The hilly farmers, without capital, were compelled to sell their salt butter in November, and early in December, to meet their Christmas rents. The price then was from 8*l.* to 9*l.*—very little so high as 9*l.*, and some lower than 8*l.* Within the last three weeks it has advanced to 13*l.* by the cask, and it is retailed at 14*l.*; so that they who have been able to hold their stock will gain about 5*l.* a pound. A hilly farmer, renting 25*l.* or 30*l.* a year, will often sell four casks of butter weighing from 80*l.*s to 100*l.*s; so that the monied farmer will have an advantage of 7*l.* or 8*l.* over the poor one. The great advance in this article is not only attributable to the unusually dry summer of 1835, but to the very great heat which occasionally prevailed, at which time no butter could be made at all. We have heard of several large farms where scarcely any butter was made for three weeks successively. At Carmarthen, the beginning of the week, they were shipping butter busily for the English market.—*Merthyr Guardian.*

Bets are pending in Exeter, that wheat will be 7s per bushel, by the 1st of May. And in the same way, that it will attain that price by the 1st of June.

## AGRICULTURAL INTELLIGENCE, FAIRS, &c.

At DORCHESTER CANDLEMAS FAIR there was an unusually large supply of cow cattle. The following is a statement of the state of business in general at this fair:—cows and calves were in demand, and sold well. Barreners from 15 to 20 per cent. higher than at the neighbouring markets a fortnight or three weeks ago. Fat bullocks fetched on the average about 10s per core. Mutton and lamb were in short supply—the former 7d the latter 8d per lb. Pigs were in great abundance, many from the west country, as low down as Bodmin—the sale was brisk at higher prices. Horses were a poor show and met with a dull sale. Cheese and butter were on the advance—the demand was good. The wool sellers stood up for 22d. per lb, some few small lots only were sold from 8d to 20d per lb. Wheat trade on the advance, say 6d per bushel higher. Barley rather flat, from 28s to 32s per qr. Oats from 22s to 26s per qr. Peas and beans rising, the former from 21s to 23s per sack of 4 bushels; the latter from 18s to 20s ditto. Red clover seed high, from 56s to 70s per cwt. Trefoil from 18s to 21s per qr. Rye-grass from 34s to 48s per qr. Hop and rye from 24s to 30s per qr. On the whole this was a selling fair, there being a great demand for almost everything.

DEVIZES CANDLEMAS FAIR, happening on the same day as Bath Fair and Melksham market, there was not so good a show of stock, &c., as is usually exhibited; and the sale was dull in consequence of the stock of hay in hand being in many quarters small. Of horses there were a great many, but very few good ones; those that were good for any thing were eagerly sought after, and maintained good prices. The greater number of beasts and horses exhibited, were of a very inferior description. Heifers sold at from 7l. to 11l. a-head; oxen, from 10l. to 17l. There has been an advance on horned cattle of 10s each, since this time twelvemonth.

BATH FAIR was attended by a considerable number of dealers. The supply of fat cattle being very limited, the whole were soon disposed of at advanced prices. Fat sheep were readily picked up at from 6½d to 7d per lb; the number at the fair being inadequate for the supply of the purchasers. There was a large quantity of lean stock, which sold tolerably well; good grazers realizing high prices.

EXETER FAIR produced a larger number of bullocks; sales were brisk, and the prices obtained were generally satisfactory. The fair wore a very business-like appearance, and the sales effected were very numerous. The first-rate fat beasts realized 10s per score, the prices descending with the quality, from 9s 6d to 8s 9d per score. The lean stock appeared in a thriving condition, and sold, the best plough oxen from 30l to 35l the pair; steers from 20l to 25l the pair; barren heifers varied according to their quality, from 6l to 9l each. The number of cows and calves was small, and of rather an inferior description; prices were from 8l to 11l.

ASHBOURN CANDLEMAS FAIR was well supplied with barren Beasts, which sold well at high prices. Fat cattle were very scarce, but what few there were fetched good prices. There were but few fat sheep, which sold at 6½d per lb. The horse fair was well stocked with horses of the waggon kind, as also hacks, but mostly of inferior quality.

WIRKSWORTH FAIR was well attended, there was a tolerable show of cattle, but not quite so much business done as might have been anticipated from the briskness of several late fairs. There appears a general scarcity of fat beasts which maintain a ready sale at advanced prices.

DUMFRIES HORSE FAIR.—The show of horses on Tuesday was not very great, but a number of very good animals were picked up by the dealers at the different portals ere they reached the Sands. The show on Wednesday was more extensive, including a fair proportion of good horses which were readily picked up by the dealers, a great number of whom were in attendance. The show consisted chiefly of draught horses, and inferior animals for saddle or harness, the number of good saddle or harness horses being rather limited, and much below the demand. The prices obtained for good animals were fully higher than those of the Candlemas fair of 1835. We may state generally, that sound draught horses ranged from 18l to 40l, a number of good colts having reached the latter sum, and a few brought even a fully higher price. The best order of roadsters gave from 40l to 50l. The sale of inferior roadsters was slow, and many remained unsold.

There were few horses in the Glasgow market, on Wednesday; the attendance was not large and sales were dull; few draught horses brought higher prices than 25l. Pigs were selling quickly; six months old pigs were 9s to 10s each; fed pigs, 24s to 25s; among the stocks of young pigs there were several of a brown colour, much like the colour of hares, called Dutch pigs, for which 9s was asked. There were a few female servants in the market; the wages till Whitsuntide, for good servants, were from 30s to 2l.

SHERBURN, NEAR MALTON. — From its vicinity to the Wolds, the chief sheep district in this part, and its central situation in regard to the agricultural and grazing villages both in the North and East Ridings, this market promises to become one of first-rate utility. Nearly 300 fat Sheep, and upwards of 60 head of Cattle of a superior description were shown, the greater part of which went off readily at an advance in price. This market has only been established within the present year, (by permission of the Hon. M. Langley, the lord of the manor,) and it is now considered a matter of surprise, that a situation possessing so many natural advantages, should have been so long overlooked.

The petitions adopted by the Agricultural Association formed in this county, have been signed by 1840 persons, and will be immediately forwarded, one to Lord Abingdon for presentation to the House of Lords, and the other to R. Palmer, Esq., M. P., for presentation to the House of Commons.—*Reading Mercury.*

SOUTH HAMS.—The young wheat has generally a healthy appearance.—*Exeter Gazette.*

PLOUGHING MATCH.—On Tuesday the 9th inst, the annual Ploughing Match for the hundreds of Dungeoddy and Kemes Pembrookshire, took place in a field on Boulston near Haverford West. Soon after 10 o'clock 32 ploughs entered the field, and moved round the headland to their respective stations, which had been appointed to every one by lot, according to



the arrangements of the managers. On the signal being given for starting, they all moved off in funeral time, every nerve being strained to draw the straightest furrow. After each man had backed his ridge, the pace improved, some say the young ones went too fast and the old ones too slow; but that as it may, it was a most gratifying sight to every beholder, the morning was not propitious, but towards noon it cleared and held up, so that the men worked in their shirt sleeves. The teams did credit to their several owners, and if any fault could be found, it was with the horses being too fresh.

After the work was finished, the judges awarded the prizes as follow:—

First prize to Isaac James, ploughman to Mr. Gibbon, Rogers hook.

2d do. To James Lewis, ploughman to Mr. Gwyther, Farthens hook.

3d do. To John Phillips, ploughman to Mr. Rees, Arnolds Hill.

4th do. To William Prickett, ploughman to Sir R. Phillips Bart, Picton Castle.

5th do. To Thomas John, ploughman to R. J. Ackland, Esq., Boulston.

6th do. To William Morgan, ploughman to R. J. Ackland, Esq., Boulston.

7th do. To William Lobston, ploughman to R. J. Ackland, Esq., Boulston.

8th do. To James Griffiths of Hencod.

After the business of the field was done, the company returned to Boulston farm, lent the managers for the occasion, where a dinner was provided, and during the evening resolutions were entered into to support and encourage ploughing matches. It was also resolved that the ploughing match for February 1837, should take place at Hare's Head, in the Parish of Wiston, and a cattle show held on the same day in the village of Wiston.

THE LATE STORM.—The damage done during the late hurricane and by the extraordinary high tide of

Thursday last, is greater than was at first supposed. An immense number of boats and barges have been swamped in the Thames, and cargoes consisting of goods of all descriptions lost, while large quantities of corn in the granaries, and goods and furniture in the warehouses and dwellings along shore, have been spoiled or destroyed by the irruptions of the flood.

The violent gales have been very general throughout England. The damage done on the Yorkshire coast is considerable. By the swelling of the waters consequent on the continued gale from the north-west, many of the lower streets of Hull have been inundated, and the cellars filled with water. On the Holderness coast large districts have been laid under water. An agriculturist of Kilnsea estimates his loss at upwards of 1,000*l*. Some of the occupiers contemplate giving up their farms in consequence of the great injury they have sustained. The shore is strewn with wreck, and the keel of a sloop has been found in a field a mile from the usual boundary of the sea.

In the neighbourhood of Clay nearly one thousand acres of land have been inundated, and the streets of that town have been nearly filled with the wrecks of boats and timber which has been torn up by the roots.

BREACH IN THE BANKS OF THE GREAT RIVER OUSE, NEAR LYNN, NORFOLK.—The utmost consternation prevails in the neighbourhood of Lynn, in consequence of a breach in the eastern bank of the great river Ouse, which conveys the highland waters of the counties of Huntingdon, Cambridge, Bedford, and Buckingham, as well as the waters of the Bedford Level, to sea by the port of Lynn. This frightful catastrophe was occasioned by the late violent gale, accompanied by an unusually high tide. The breach is situate in the parish of Magdalen; it took place early on Thursday morning, and has excited the most serious apprehensions, the safety of many thousand acres of fertile land being dependent upon the security of the banks of this river. The extent of the breach through which this water was rushing is not less than 140 yards.

## AGRICULTURAL REPORTS.

### OXFORDSHIRE.

The weather through the last month has proved variable, sometimes frost, at other times rain, but not in abundance; on the 29th ult., and on the 2nd inst. we had heavy falls of snow, which melted gradually, otherwise we should have seen a high flood, as it was, the meadows were partially, though not entirely flooded, and for the first time this season. The severe frost we experienced at Christmas has cut up vegetation rather severely, and the wheats are looking extremely bleak in many situations; upon the whole, we do not consider this crop as looking by any means prosperous; but much will depend on the weather during the two succeeding months; at any rate none will require to be eaten down or mown off this season.

The crop of Swedes proves every day to be worse than we could have supposed, when the grub injured the bulb, great numbers have rotted (a very unusual thing for this crop.) Altogether, we never remember any thing like so failing, and we may almost add, when compared with former ones, so worthless a crop; the loss is beginning to be severely felt—artificial food is obliged to be had recourse to in order to make up the deficiency; notwithstanding, on account of the wool bearing a good price (two guineas per tod and upwards,) store sheep sell better than could have been expected. Beef and mutton

are scarce, so much so, that butchers have some trouble to meet with the number of animals they require for their customers. Wheat has at length taken a start, prime old, yesterday, making 6s per bushel. We have in more than one preceding report ventured to predict that in consequence of the quantity of straw required to produce a bushel of wheat, the supply must fail, and an advance in price be the consequence. We have had no import of wheat from the continent for many months, and but little lately from our neighbours the Irish; yet there is no want of wheat in the country, therefore we consider we are fully borne out in the statement we have so repeatedly made, namely that the soil of the United Kingdom was fully adequate for the supply of our population, even if it was much greater than it is. Now what will those garrulous writers and wiseacres say to this, who have been crying out that it was quite necessary to have a regular import of foreign corn to make a sufficient supply to meet the wants of the consumers? We might adduce the fact that some thousands of quarters of wheat have been, and are now, given to cattle of all descriptions; but enough has been said to prove the folly as well as the consummate ignorance of those pretended alarmists. We trust this fact of the country being able to maintain its inhabitants, will be steadily proved before the committee now sitting; and that practical

men will be summoned to give evidence out of every county in England.

#### BEDFORDSHIRE.

During the months of winter there is little to report concerning cultivation which affords us much pleasure to communicate, or which can excite any interest with our readers in receiving it at our hands.

We have had this year a good full portion of real winter weather, though not upon the whole scarcely a usual quantity of rain. The frost, however, has sometimes been intense, and for several days back the wind has been blowing pretty severely from the north north-east; so that vegetation may generally be considered to be very backward, the young wheat making but little show while the tares and clovers are less discernible than in the autumn. The turnips throughout have been a bad crop, and what few are left are fast rotting upon the ground, the purple top kind in particular. Our farmers are, therefore, put to great inconvenience in keeping their sheep, and to a cost for artificial food, which they can ill afford. The consequence will be, that while the consumer considers he is put to a high price for his meat, the grazier of mutton will have great difficulty in getting half remunerated for his immense outlay.

The winter, upon the whole, must be considered rather favourable than otherwise, for the greater part of the land of this county, and farm work is pretty forward, the early kind of oats being chiefly sown, while great progress has been made in dibbling and drilling the beans and peas, and if the present dry weather should continue, some of our farmers will be induced to sow barley even before this month terminates. Perhaps it is full early if we could secure sufficient dry weather in next month for the operation, but of late years February has produced more fine weather than March, and of this crop, in particular, the manner of putting it in is of more importance than the exact time, providing you are not late, against which (if quality is to be regarded) every effort should be used.

Our farmers vary much as to their statements concerning the relative good properties of the Chevalier barley; most, however, are agreed that it does not produce equal to the commoner sorts, and that they consider themselves by no means compensated for the deficiency of crop by the increased price which it commands. Others, however, (and especially those situated upon the unkind soils for quality,) most adhere to the Chevalier stock.

Wheat has gone up from its extreme depression about 1s per bushel, but is still far too low to be at all remunerating to the grower, and it is now too late for any improvement in price to do any material good to our most needy tenant-farmers for this year, and our fear is, that many of them are gone past all recovery.

We most sincerely congratulate however, the farming public upon one other effort being made to obtain a redress of grievances from parliament, either by obtaining some mitigation of the severe and grossly unjust restriction of the currency, or by the removal of those burdens which now press so unfairly upon agriculture: our own conviction is, that agriculture may and ought to be relieved from both these sources. At any rate, the efforts which are now making will put some of the consistent Whigs, and the pledge-breaking Tories, once more to the test, and we trust that the eyes of the whole country constituency will be kept upon them.

#### NORTH RIDING, YORKSHIRE.

I am glad to say that we are beginning to improve in spirits, prices are rather improving, not that I wish to hunger the poor, far from it, neither do I wish to be ruined myself. I have no doubt but the creditors of the farmer have been watching him some time, particularly the joint-stock banking companies, who have such extensive means of knowing his circumstances; but now, as prices are rising, and that government have condescended to pay some attention to the *greatest interest of the state* (*what a condescension!*) I hope we shall do better. I have read with much interest the parliamentary debates. Was much pleased to find that the Marquis of Chandos and Lord J. Russell were determined (at least to all appearance) to put *party* out of the question. Now this is as it should be. Farmers, manufacturers, Tories, Whigs, Radicals, are we not all Englishmen? then why should one party wish to ruin the rest; but it appears that some think that the principal relief must come from the landlords. I think not, though I have not one yard of land that I can call my own; and, if you knew me, you would believe me, when I say that I ask no favour of any landlord. I am sorry that they have not done justice to their tenants during those depressed times; in too many cases they have been too much occupied, to attend to the wants of their tenants. There are many exceptions; but then, why should the landlord reduce his rents, and the cotton spinners &c., not reduce their profits (I do not mean the operatives, their masters will take care of that?) I read in the *York Herald*, that a certain colonel said that the difficulties of the farmer was owing to their being too extravagant, living as they did during the war. Now I would ask the colonel, how he would like to be brought down to a sergeant during peace; and does he not think that farmers wish to keep their places as well as he does. No, my brave colonel, let us all advance. I do not like retreating, whatever you may. I also noticed in your paper a letter recommending a fixed duty on corn of 16s per qr, instead of the present scale. If your correspondent had said 20s, we should have agreed; but the corn laws should not be so often agitated, it causes the farmers to become too much addicted to politics (myself an instance,) instead of minding our farms. I am quite convinced that if there was a law enacted, that there should not be one bushel of any kind of grain imported into England, and that every encouragement should be given to improving farmers, we should be an exporting country. How many acres of waste land are there that would pay for cultivating, and how many are there ready to cultivate them? how many are there going to America, &c.? These are questions which ought to be studied by our rulers, instead of who are to be in place.

We have had a very mild winter, so far, which is rather extraordinary, as I understand that there has been a great fall of snow southward. Turnips are likely to be sufficient for the stock. The quantity of stacks in the stack-yards are a full average number at this time of the year. The money in the farmers' pockets very little (I judge by my own.) Beef and mutton are advancing. Good horses are high priced. Labourers wages the same. Farmers means of paying them rather lower.—Feb. 17.

GENERAL AGRICULTURAL REPORT  
FOR FEBRUARY.

This month commenced with its wonted characteristic humidity. During the first ten days, the atmosphere was either foggy, misty, cloudy, or shedding at intervals, drizzling rains; and occasionally, between these short periods, evanescent afternoon sunshine; subsequently, however, the weather has been the most March-like of that of any February we—who have entered our grand climacteric—recollect to have ever before witnessed. Hence, as even the misty showers were not sufficiently heavy to materially impede the progress of tillage, ploughing, and sowing of oats, and other Lent seeds, have, with other field labours, proceeded to a much greater extent, than has been usual, in this month; whilst the growing wheat plants plant well, and are described as being, though not exuberant, strong, healthy, and otherwise manifesting a promising appearance, and the whole range of green vegetation—with the exception of there being, in Norfolk, and some other districts, complaints of a scarcity of winter turnips: as displaying, for the time of year, an unusually fresh and animated appearance. Depastured sheep and beasts, the ewe flocks, bullock herds, and live farm stock in general, are also described as unusually healthy, and doing well, with much less than an ordinary quantity of fodder, so that, as far as relates to his tillage, the general promise of his wheat crop, or the health of his live stock, the farmer has not much cause to complain. Of sheep rot, we have no complaint whatever. Notwithstanding, however, these favourable circumstances, and that the currency theorists are trying to persuade farmers that a ray of hope glimmers for them, in the agricultural atmosphere, through his Majesty's speech to parliament, the delusive pretensions of a Central Association, its late meeting at Freemason's Tavern, &c., there is, as many of them seem to be aware, still a gloomy mist before their eyes! The discerning part of them, indeed, seem to be willing to dispense with all legislative interference—except a wholesome commutation of tithes, and other church exuberances—the whole of which they one and all seem to wish to be wholly abolished, and the clergy to be liberally subsisted out of the general taxes, rather than depend upon the theoretical interference of a parcel of currency doctors! We have read, in the course of the month, both in the *Norwich Mercury*, and, indeed, several newspapers, and other periodicals, accounts of an agricultural meeting, held at Lynn, on the 26th ultimo, not attended, at its commencement, by more than 120 persons, composed of both landlords and tenants; and whom the editors asserted, “at no time numbered 200!” This meeting, we regret to intimate, like many others that had preceded it, seemed to be too much mixed up with the currency question, whilst the violence of some of the speeches—especially those of Dear Wood, who did not seem disposed to content himself with making one speech—was represented as clamorous in the extreme. “Can you”—he was said to have asserted, while addressing the meeting—“can you show one year since 1815 that you have not clamoured? You then had a protecting duty of 21s 6d, when wheat was 63s per qr! There,” he subjoined, “is the point; and where stands the man that will say I am not on sound

ground? What was the late corn law,” he continued, “but a prohibition, and a good one it was said to be! But what was its effect? Why, the moment the corn came above a certain price, the foreign merchant poured his grain into your market, and, for a long time, swamped it. You,” he added, “had better been content with the old law. But how has that law worked, in operation? Why by a fraudulent average, in this very town. A merchant here returned that he had bought 200 quarters of wheat at 32s per quarter, whereas he had only bought 11 quarters at 18s, and another returned that he had bought 121 quarters, whereas he had bought none!” These were certainly, if true, fraudulent transactions; but, with all deference to the Dean, we do not recollect the prices of sound wheat to have been so low as 18s per quarter, at any period of the present century. We, however, conceive that agricultural prosperity is rather to be revived by the mutual concurrence of landlord and tenant, to the valuing system, according to the nature of soils, state of roads leading to and from market, local prices of produce, &c., than by any other legislative interference, except the abolition of tithes, and allowing the clergy a respectable subsistence out of the general taxes!

There has been, too, a ridiculous farrago going the rounds of the newspapers, in the shape of an extract from the *Edinburgh Review*, which signifies that the supplies of corn and other raw produce from Ireland, are not quite sufficient to provide for the greatly increased—instead of, by the use of steam, decreased number of horses kept in the country; seeming to take no notice that the cause of the depressed price of wheat is an increased consumption of the potatoes sent from Scotland to England, and that this farinacious vegetable has, with the aid of hard pudding, or dumpling, nearly superseded the use of bread, on the dinner table of the humbler, and a very great proportion of the middle classes of society.

“In an answer to a letter of Mr. Eyers, written by Mr. Coke, in January, 1821, we find,” says the *Norwich Mercury*, of the 5th of Feb., current year, the following passages. “I conceive that my agricultural friends,” says the venerable Osiris of Norfolk, we might have said of British tillage, “mistake their own interest, in calling for protecting duties, by way of remedy, for the distress under which they labour. I am more than ever convinced that nothing can avail but a diminished expenditure and its natural consequence, diminished taxation. The efficiency of these protecting duties is no longer matter of theory. They were laid on in the latter part of 1818, since which the market has been your own; yet what have they done for your prices? If the abundant produce of these realms,” he subjoins, “be capable of receiving a direction to the mouths of our abundant population, then has Lord Liverpool rightly considered us as justly punished for our industry; and Lord Sidmouth wiser than all the great sages of Antiquity!” Again, as the Editor of the *Norwich Mercury* said, in the course of the month, “We are not combatting the general feeling. We are desirous only to have the landed interest, especially the tenantry, exempt from the disappointment, attendant on absurd propositions. Parliament can do but little for agriculture, if to raise the price of its commodities be its object. If not, down must come rent, and its fixed elements tithes and taxes.”

As relates to the month's value of farm-produce, the prices of both fat stock, most kinds of corn, as also hops, poultry, and dairy-produce, have been looking a little upwards, whilst those of milch cows and horses have been a little on the advance: of hay and straw about stationary.

The following is a brief retrospect of the supplies and prices of Smithfield cattle market, from the commencement of the year to the 22nd instant:—

	Beasts.	Sheep.	Lambs.	Calves.	Pigs.
Jan. 4	2525	27100	—	240	320
8	395	3840	—	280	310
11	2280	22320	—	200	220
15	476	3650	—	220	340
18	2885	24550	—	280	370
22	520	3600	—	210	340
25	2760	18100	—	310	330
29	425	3100	—	200	230
Feb. 1	2650	20800	—	200	230
5	476	3150	—	220	235
8	2390	18500	—	190	240
12	520	4160	—	250	410
15	2750	22700	—	220	380
19	620	3100	—	250	410
22	2680	20700	300	265	140
Total.	24152	199370	300	3335	4555

The prices of meat, per 8lbs., were on

	Jan. 4.		Feb. 22.	
	s. d.	s. d.	s. d.	s. d.
Inferior Beef . . . .	2 2 to 2 4	2 4 ..	2 4 to 2 6	2 6
Ditto Mutton ..	2 4 to 2 6	2 6 ..	2 8 to 3 0	3 0
Middling Beef ..	2 8 to 3 2	2 ..	2 10 to 3 2	3 2
Ditto Mutton ..	2 10 to 3 2	2 ..	3 4 to 3 8	3 8
Prime Beef . . . .	3 8 to 4 6	4 ..	4 2 to 4 8	4 8
Ditto Mutton ..	3 4 to 4 4	4 ..	4 4 to 5 0	5 0
Veal .. . . . .	3 6 to 5 0	4 ..	4 0 to 5 2	5 2
Lamb .. . . . .	— to	5 4	4 to 6 4	6 4
Pork .. . . . .	2 10 to 4 4	3 6	3 to 4 8	4 8

The following is, as nearly as can be ascertained, a statement of the numbers of beast sent to Smithfield, from different sources, from the commencement of the present year, to the 22nd instant inclusive—*via.*, St. Alban's road, 4,500; *via.*, other northern roads, 3,590; from Norfolk, with a few from Suffolk, Essex, and Cambridgeshire, 6,350; from the western and midland districts, 2,010; from Scotland, 990; from Sussex, Surrey, and Kent, 320; and most of the remainder, the numbers of which cannot be accurately ascertained, on account of their not entering the market in regular droves, from the stall-feeders, marshmen, &c., near London.

From the commencement of the year, till the grass-fattened sheep are out of their wool, the sheep and lambs are sent, in about equal numbers, from the southern parts of our northern districts, from Norfolk, Suffolk, Essex, Cambridgeshire, Kent, Sussex, Surrey; by the sheep-feeders, near London, and our western and midland counties.

The butchers complain that the Norfolk beasts have hitherto, this season, carried less internal fat, consequently come lighter to the scale, than has been usual at this time of year.

The Smithfield annual supply, on the average of five years, has consisted of about 163,837 beasts; 1,369,229 sheep; 26,000 calves; and 34,000 pigs.—The estimated annual value of fat stock, sold in Smithfield, is £5,230,000!—Feb. 24.

### HEREFORD AGRICULTURAL SOCIETY.

The meeting of this Society, on Monday Feb. 8, was numerously attended. The show of bulls was splendid. For this exhibition Mr. Charles Bulmer had kindly allowed the Society the use of a meadow, in front of Moorfield Place. This meadow is admirably adapted for the exhibition having two of its sides fenced with large palings, along which the respective stocks exhibited were arranged: so that the spectators on the

outside had excellent views of the animals. We would suggest, however, that should Mr. Bulmer repeat his kindness on future occasions, it would be more satisfactory to the farmers, if the animals were to remain in their situations for an hour after the judge had gone round, as we heard several of our county breeders regret, that from the Beasts having been moved off directly after the judge left the field, they had not had an opportunity of *touching* the animals. The exhibition altogether was very fine, the different animals eliciting the admiration of the spectators, particularly of the Agriculturists. The attendance of the company at an excellent dinner at the Hotel, was, as usual, very full, and it was determined not to join the Central Agricultural Society in London; we regret to state that P. Jones, Esq. of Sugwas, intimated the funds of the Institution were far from adequate to the expenses, and we hope the hint will cause an immediate accession of subscribers to the society. The successful candidates for the Premiums, were announced as follow:

1. Best Yearling Bull, prize value 5 guineas, to Mr. T. Yeld, of Broom.
2. Second best Yearling Bull, prize value 3 guineas, to Mr. John Walker, of Burton, but he having gained the second prize last year, was disqualified.
3. Best Two-year-old Bull, prize value 5 guineas, to Mr. John Bate, of Elsdon.
4. Best Three-year-old Bull, prize value 5 guineas, to Mr. John Morris, of Stockton.
5. Best aged Bull, prize value 5 guineas, to Mr. William Williams, of Cowarn Court, but Mr. Williams being said to be disqualified, the judge certified that the next best was that of Mr. W. Stedman, Bedstone Hall Salop; the committee however have yet to determine whether Mr. Stedman was qualified or not.\*
6. Best cart stallion, prize 5 guineas, to Mr. W. Vevers, Yarkhill; the cup to be delivered next Michaelmas, on proof that the horse has been constantly used during the present season in this county; a second horse exhibited by Mr. Vevers, was much approved of. In addition to the above successful candidates, the bulls sent by the following amongst our eminent breeders were deservedly admired: Mr. J. Adams, Mr. T. Fowler, Mr. T. Galliers, W. C. Hayton, Esq., Mr. J. Hewer, Mr. T. Jefferies, Mr. J. Lewis, Mr. J. Morris, Mr. J. Matty, Mr. C. A. Mason, Mr. M. Newton, Mr. W. Palmer, Mr. Perry, Mr. Price, Mr. Roberts, Mr. Stedman, Mr. Tully, Mr. Turner, Miss Tomkins, Mr. R. Yarworth, Mr. Yeld, &c. &c. The awards of the judge, Mr. S. Scotson, of Liverpool, gave universal satisfaction.

DEATH OF A FAMOUS WATERLOO HERO.—On the 12th day of February died at Strathfieldsaye, of old age, Copenhagen, the horse which carried the Duke of Wellington so nobly on the field of Waterloo. He was foaled about the time of the battle of Copenhagen, from which he got his name, and was remarkable for gentleness and spirit united. He lost an eye some years before his death, and has not been used by the noble owner for any purpose during the last 10 years. By the orders of his Grace a salute was fired over his grave, and thus he was buried as he had lived, with military honours. This horse has long been a great attraction to strangers, who were accustomed to feed him over the rails with bread, and the Duke himself preserved an especial regard for him, which cannot be wondered at upon considering that he bore him for 16 hours safe through the grandest battle that has occurred in the history of the world. The late amiable Duchess was likewise particularly attached to him, and wore a bracelet made of his hair.

\* The following is a Copy of the Judge's Certificate:—“ Being requested by the Stewards and Committee to state, which aged bull of the number shown at the Hereford Agricultural Meeting yesterday, was entitled to the prize, as Mr. Williams' bull, No. 2, is said to be disqualified, I do hereby certify, that in my opinion the bull, No. 10, is entitled to rank as the next best to Mr. Williams'.” SAMUEL SCOTSON.  
Witness, Thos. J. Bell.—Dated February 8th, 1836.

## REVIEW OF THE CORN TRADE DURING THE MONTH OF FEBRUARY.

During February the wheat trade throughout the leading markets of the kingdom, have exhibited a degree of animation, that has not been witnessed for many months; indeed agriculturists generally, in addition to the improvement realised on the principal commodity of their produce, have experienced another cause of excitement, originating in the formation of numerous agricultural societies, and have thus had various opportunities afforded them of partially dissipating and relieving the gloom and depression, under which they have for so lengthened a period laboured. Respecting the ultimate benefits, which the tenant farmers are likely to receive by the institution of agricultural meetings, for the express purpose of seeking redress from parliament, and a mitigation of those burdens now oppressing them, we have before avowed ourselves extremely sceptical, and the opinions often expressed on the subject have been fully substantiated by most of the speeches delivered in the Houses of Lords and Commons, on the appointment of the agricultural committees. Though this object of obtaining relief from the legislature, may be thus rendered abortive, yet we trust the societies will be still upheld, and eventually prove, by more sensible and legitimate means, advantageous to agriculture, in promoting an improved system of cultivation, as the depreciation in the value of the produce of the land, can be alone counteracted by corn tithes, corn rents, or a fair adjustment of rent equivalent to the receipts, and by a scientific course of tillage.—that is, a chemical analysis of the soils, and the adaptation of appropriate manures, by a persevering system of draining, especially of tile-draining, and by giving fresh and renewed vigour to the exhausted superficial soils, by trenching, and causing the earth to teem with more than two, aye, threefold, the abundance, than has been reaped from the previous system of culture. This is no visionary notion of the land possessing the embryo power of yielding a much higher average rate of produce, than is at present returned, for if proofs were really required, among the many which might be adduced, is the instance of the experiment made some years since by the celebrated French chemist, *Lavoisier*, who cultivated 240 acres of land, in La Vendée, on chemical principles, in order to set a good example to the farmers, and his mode of culture was attended with so much success, that he obtained a third more of a crop than was yielded by the usual method, and in nine years his annual produce was doubled. The application of chemical knowledge to agriculture, has in this country been almost totally neglected, though the most valuable agent which the agriculturist can possibly acquire. Analytical chemistry will teach him to appreciate the real value of his farm, to turn every acre to the best account, and by transporting and transposing the different soils, how each may be rendered more productive. The analysis of the soils will be followed by that of the waters, which may spring from, or flow through, his land; and he will discover those best adapted for irrigation. The peat, the marl, the lime, and other manures must be sub-

jected to the same experiment, before he can avail himself of the advantages which might be derived from them, or before he can be certain of producing any particular effect. The necessity of analysis to the farmer, is evident from the trite knowledge of the circumstance, that some kind of lime is injurious to land, and would render land hitherto fertile, actually sterile. Besides, a knowledge of the first principle of chemistry, will teach him when to use lime hot from the kiln, and when slacked; how to promote the putrefactive process in his composts, and at what period to check it, so as to render the fertilizing qualities most effective; exhibiting likewise, the difference in the properties of marl, lime, peat, dung, mud, ashes, alkaline salt, sea-water, soap-waste, oil cakes, animal matter, &c., and consequently which are most suitable for the different kinds of land. Thus we have endeavoured briefly to point out a few of the leading facts, exemplifying the high import connected with a knowledge of the chemical properties of bodies: it would in truth be discovering to the agriculturist a *hidden treasure*, and conferring upon him a new and distinguished character; and our country gentleman, as has been observed by an intelligent writer, “instead of devoting themselves wholly to the fowls of the air, and the beasts of the field,” would be qualified to cultivate their estates upon scientific principles, and to enjoy their retirement with philosophic minds.

The supply of Wheat from those counties, which usually export to the London Market, have been, during the past month extremely limited, exhibiting a deficiency as compared with January, in which the importations were also very moderate, of 4,500 qrs, and compared with December a diminution of 21,000 qrs. The speculative attention attracted towards wheats, as noted the previous month, has continued throughout February, which in addition to some orders for shipment to the North, and the short stocks of the millers compelling them to come upon the market, has caused a very favourable change in the aspect of the trade, briskness, instead of the usual dulness, having characterised the proceedings of the principal market days, enabling factors to realise an advance of 6s to 7s per qr., on the finer qualities, and 4s to 5s on the secondary and inferior descriptions; and clearances generally effected at these improvements. An opinion however, appears to prevail, that the speculative feeling in favour of wheat commencing thus early in the year, while the stocks are still large, and the season not sufficiently advanced to offer any criterion to judge from as regards the growing crops, that the article is likely to be affected too much by increased supplies, to render much chance of the enhancements of the currencies being maintained, and that speculators are not likely to follow up the advanced quotations; as the falling off in the imports, is not to be attributed to want of stocks, but that the bulk of wheat now held, is in the hands either of larger farmers or merchants, who have in their power to refrain from bringing their samples to market, and thus a temporary diminution is experienced in the London, as

well as the country markets, where prices are dependent, in great measure, on the currencies realized in the Metropolis. Much life has also prevailed in bonded wheat for shipment to the United States, the American currencies still continuing to rule high; the accounts of the weather, and state of crops from also New South Wales being extremely unfavourable, a few small cargoes have been exported to that distant part of the world. The principal shipments have been about 6,100 qrs. to Baltimore; 1,800 qrs. to New York; 600 qrs. to Philadelphia; 2,800 qrs. to New South Wales; 1,900 qrs to Van Diemen's Land, and 2000 qrs to Marseille. The offers have been generally low, and principally confined to the lower Baltic red wheats at 24s to 26s; and 28s, 30s, to 32s for Danzig. Holders, however, as the demand has improved, have increased their demands, and the bulk of the exports have therefore been on owners' account; samples are now for the most part, either withdrawn from the market, or the rates asked are much higher than the offers. Speculators having waited already to so protracted a period, are now willing to await the issue of events, than to submit to the heavy loss which must be even at present made in order to realize.

The improvements in the wheat trade has enabled millers to advance the price of flour; town made qualities being noted at 40s to 42s, which shows a rise of 1s per sack, and country marks have increased in value 2s to 3s per sack. The supplies of flour-coastways have been on a very limited scale, being upwards of 5000 sacks less than during the month of January, and 15,000 sacks less than December. Bonded flour has experienced much enquiry, but there are few parcels offering, and prices have advanced fully 1s per barrel; from 2000 to 3000 cwts. have been shipped to New South Wales, and 600 to 700 to New York, besides 1000 to 2000 cwts, to the Mauritius; from 18s to 23s per barrel are the prices paid according to quality.

The averages have sustained little variation, the duty on Wheat has declined 2s per qr. On barley, 1s 6d, and the same amount on oats, and has advanced 1s 6d per qr., on rye and peas.

Though the supplies of barley have been moderate and less than last month by 7,500 qrs., yet the trade has been dull and languid: the brewers at the close of January got well into the stock of malt, which caused malsters to be generally shy of purchasing, Chevalier qualities in consequence have receded 1s per qr., and common malting runs 1s to 2s, but selected parcels of the former description of barley towards the end of the last month experienced a demand at steady prices. The distillers have purchased several parcels at the decline of 1s 6d per qr., but in grinding descriptions there has not been much business transpiring and prices are nominally unaltered. Bonded barley has met some speculative attention, and 3,000 to 4000 qrs have been bought for shipment to the United States at 13s 6d to 14s.

The large brewers having refrained from purchasing, the malt trade has continued heavy at a decline of 1s per qr on all descriptions.

The supply of oats from our own coast, has exceeded that of January by 5,800 qrs, while from Scotland the arrivals are nearly 1,000 qrs less, and from Ireland a falling off appears, amounting to 31,100 qrs, making a total diminution during the month, of 29,500 qrs. And in comparing the importations of the article since harvest to the present period during 1834-35, and 1835-36, it appears that we received from:—

Michlms. 1834, } to end of Feb. } 1835.	Engsh. } } qrs.	Scotch. } } qrs.	Irish. } } qrs.	Total. } } qrs.
	30,428	157,299	356,861	544,588

Michlms. 1835 }  
to end of Feb. } 79,331 49,133 216,982 345,446  
1836.

Exhibiting on the aggregate this season, a diminution of 199,142 qrs; having imported 108,166 qrs less from Scotland, and 139,879 qrs less from Ireland than last year, though from England there is an increase of 48,903 qrs.

In the early part of the month, dealers and consumers anticipating increased supplies refrained from purchasing, and the oat trade remained languid, though needy customers in some instances submitted to an advance of 6d per qr; towards the middle of February the arrivals augmented, but were met by a free demand, purchasers being out of stock, since which the trade has remained firm at an additional advance of 6d, making the quotations 6d to 1s per qr dearer than at the close of January. The material difference, which appears in the importation of oats this season, would lead to the inference that the stocks must be considerable both in Scotland and Ireland; as the agricultural banks in the Sister Isle have enabled farmers to withhold their produce for the present, in hopes of a further rise in the prices, which are already higher in proportion than our quotations, the rates demanded free on board being 10s 6d to 11s 6d according to the distance of the ports; Galway's have been sold at 9s to 9s 6d per barrel. A partial enquiry is experienced for oats in bond to ship principally to the West Indies. Stale qualities have been sold at 9s; good Danish, Swedish and Russian are worth 11s to 12s. Friesland 12s to 15s. Brew 14s to 15s.

Old Beans are extremely scarce and would realise the top quotations. New qualities have proved saleable, and at the commencement of the month obtained 1s per qr more money, which improvement they have maintained.

White peas have sustained little alteration either in price or demand, and maple have supported their previous quotations; but hog peas are 1s per qr lower than in January.

During the month of February the following quantities of Grain and Flour have arrived in the Port of London.

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats. qrs.
English .....	27,514	34,448	27,893	20,996
Scotch .....	50	2,980	350	12,931
Irish .....	...	...	343	22,670
Total in Feb. .	27,564	37,428	28,616	56,597
Total in Jan. .	32,183	44,919	33,702	86,142
Total in Dec. .	48,504	60,924	39,864	57,568
Foreign in Feb. .	...	...	...	...
	Beans. qrs.	Peas. qrs.	Linseed. qrs.	Flour. sacks.
English .....	8,534	3,846	39	30,142
Scotch .....	148	43	...	270
Irish .....	...	...	...	...
Total in Feb. .	8,679	3,889	39	30,412
Total in Jan. .	8,514	6,584	16	35,507
Total in Dec. .	8,175	5,662	287	45,955
Foreign in Feb. .	...	...	3,590	brls. 458

In France the principal grain markets have maintained a very steady appearance, and as the better qualities of Wheat are scarce, advanced rates have been in many instances realized. In places the scarcity of good samples is accounted for by the stores in the barns being exhausted; some farmers not having yet taken down their stacks, and those who have, are bringing to market that portion of the grain which has been more or less affected by the

weather while in the rick ; secondary and inferior qualities therefore are now forming the bulk of the samples offering. Little credit seems attached to the conflicting reports regarding the progress of the young wheats, the impression being that they are for the most part exaggerated, and that the season is not far enough advanced to form an opinion of sufficient probability to influence the currencies : the fields in various districts present a more favourable appearance than last season, as weeds are not seem striving with the wheat plant, and threatening to choke it in its growth. In the southern departments wheat continues at remunerating prices, and induces the shippers still to export from the western parts of the kingdom. At Marseille, the law prohibiting the manufacture of the Barletta wheat into flour for export has given considerable umbrage to the merchants, as the Odessa wheat, which is now used, produces an inferior quality of flour, and requires admixture. Owing to these new restrictions, the Neapolitans are availing themselves of the advantage and exporting to Algiers Barletta flour. The quality of the Barletta wheat is decidedly superior, and might be grown with advantage in our own country. At Grignon, in France, successful experiments have been made in its cultivation, and the samples are fine, and realizing 36 francs the 1½ hectolitre, or about 53s 7d per qr for seed, the top quotation at Paris for native qualities being 24 francs, or about 35s 10d. M. Bella, director of the experimental farm at Grignon, announces that he has a summer, as well as winter Barletta wheat, both qualities of which may be depended upon for their growth.

The prices of grain in the Italian markets have sustained little variation ; all the speculative business has been transacting at Naples, where wheat and oil are articles of speculation, in some degree similar to the funds on the Stock Exchange, otherwise the demand for Barletta wheat has been confined to the local wants, with the exception of the export of some Barletta flour to Algiers. At Leghorn rather considerable sales appear to have been effected during the past month, white Tuscan wheat being noted at 39s 5d, red ditto at 32s to 35s 6d. The wise and politic measures adopted by the government of Tuscany, in remitting the duties on the import of foreign goods, is represented as having had a very beneficial effect on commerce, and reviving the mercantile importance of the city. At Genoa the transactions in grain were confined to the local wants. The market at Trieste has supported throughout the month the former quotations, though crushing seeds had partially receded in value, owing to the decline in the price of Olive oil. Italian and Banato wheat was noted at 26s to 31s 3d per qr.

From Sydney the reports are extremely unfavourable of the state of the crops, the long-continued drought having, at the date of the last advices, destroyed all hopes for the harvest ; wheat had advanced to 13s per bushel, and at Launceston and Hobart-Town the markets, owing to the unfortunate state of the agricultural expectations in New South Wales, had further improved in price, extensive purchases having been made for shipment to Sydney, at 10s to 11s ; many holders of wheat, however, would not accept even 11s 6d per bushel, as they anticipated a further enhancement in the currencies.

In Canada the prices of Wheat remained firm at 4s 6d to 5s 6d per minot for Lower Canada red, of Upper Canada quality there was none offering ; Flour realized 30s to 31s per barrel, superfine. The farmers in the interior country markets were obtaining remunerating rates owing to the demand on the part of the Americans, not only for Wheat, but also for Barley.

In the United States the inland water communications were generally re-opened, but the supplies had only been moderate of grain and Flour. At New York, Flour had advanced, and common to good brands were noted at 33s 1d to 33s 9d per barrel. There had been no arrivals of Wheat and the only quotations was that of North River quality at 48s ; Genesee of best quality having obtained 53s 2d to 55s. Some Rye had been received from Rotterdam, which obtained 36s 3d ; Cloverseed was dull, and ¼ d to ¾ d per lb cheaper. At Baltimore, Wheat was noted at 52s 5d to 53s 2d per qr, and Flour 30s 4d per brl.

At St. Petersburg the grain trade was dull, and by the advices received from the interior, as to the crops, it appeared there would be sufficient grain for the food of man, and sufficient feed for cattle ; and therefore no probability existed of the port of St. Petersburg being re-opened for the free admission of foreign grain. Linseed met with less attention, but was held at 42s 10d for best qualities. At Riga considerable purchases had been made of Linseed for English account at 40s, 41s to 42s. In grain nothing transpiring. At Danzig, prices of fine high mixed Wheats have rather improved and the superior qualities of 1834 comparatively scarce, being noted at 29s, new do 28s, and the stocks limited, but of older Wheat, good weighing 61lbs, and of useful quality, but colour rather faded, there were a good many samples on hand, which might be bought much lower. There does not appear much chance of the Vollynian samples being obtained under the present current prices, as the holders have been at considerable outlay in storing, &c., and the transport has become hazardous and expensive, the Insurance Offices having refused to insure cargoes in the flat bottomed country barges. In the Lower Baltic ports the grain and seed trade has sustained no variation, previous currencies being supported. In Holstein and Denmark the Rape plants have been much affected by the weather. At Hamburg, with the exception of the purchase of some parcels of Upland Wheat, ex-granary, for manufacturing into Flour for export, there was nothing passing in the grain trade. Beans had found purchasers at 13s 6d to 20s. Cloverseed firm, as the stocks are small, and when the demand commences for the consumption, there will be little left of good quality for export ; a parcel which had been shipped from Bohemia, and was on its passage down the Elbe, has been countermanded and re-freighted to Prague, the supplies for the local wants having become so limited.

CURRENCY PER IMPERIAL MEASURE.

	BRITISH.		FEB. 1.		MARCH 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk.....	31	40	38	40	42	52
White.....	35	45	42	47	44	52
Norfolk, Lincolnshire and Yorkshire.....	33	37	37	41	37	41
White, do. do.....	35	41	40	49	49	52
West Country Red.....	32	36	36	42	42	42
White, ditto.....	35	40	38	47	47	47
Northumberland and Berwickshire Red	34	36	35	40	40	40
White, ditto.....	35	38	36	45	45	45
Fest Red.....	—	—	—	—	—	—
Ditto White.....	29	32	29	33	33	33
Barley, Malting, new.....	32	35	32	34	34	34
Chevalier, new.....	24	28	24	27	27	27
Distilling.....	21	26	21	26	26	26
Grinding.....	21	24	21	24	24	24
Irish.....	40	49	40	48	48	48
Malt, Brown.....	58	61	58	60	60	60
Ditto, Chevalier.....	46	56	46	55	55	55
Ditto, Norfolk and Suffolk Pale.....	58	61	58	60	60	60
Ditto Ware.....	30	31	28	30	30	30
Peas, Hog and Grey.....	30	32	30	32	32	32
Maple.....	32	38	32	37	37	37
White Boilers.....	34	42	35	43	43	43
Beans, small.....	30	40	30	41	41	41
Harrow.....	29	39	29	39	39	39
Ticks.....	30	32	30	32	32	32
Mazagan.....	30	32	30	32	32	32

	FEB. 1.		MARCH 1.	
	s.	d.	s.	d.
Oats, English feed.....	18	22	18	23
Short small.....	21	24	21	25
Poland.....	21	25	21	26
Scotch, Common.....	18	25	18	26
Berwick, &c.....	21	28	21	28
Potatoes, &c.....	21	29	21	29
Irish, Feed.....	16s 0d	to 18s 0d	16s 6d	to 19s 0d
Ditto Potatoes.....	19s 0d	22s 0d	19s 6d	23s 0d
Ditto Black.....	16s 0d	19s 6d	16s 6d	20s 6d

PRICES OF HOPS IN THE BOROUGH.

	FEBRUARY 1.			MARCH 1.		
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
East Kent Pockets.....	5	5	6 15	5	15	7 5
Mid-Kent Pockets.....	3	15	6 6	4	10	5 5
Weald of Kent Pockets.....	3	15	4 10	0	0	0 0
Sussex Pockets.....	3	10	4 0	3	15	4 12
Yearlings, Bags.....	3	3	4 2	0	0	0 0
Old Olds.....	0	18	1 10	0	0	0 0

PRICES OF FLOUR,

Per Sack of 280 lbs.	FEB. 1.		MARCH 1.	
	s.	s.	s.	s.
Town-made.....	34	38	36	42
Norfolk, Suffolk, Kent, and Essex.....	27	30	30	34
Sussex and Hampshire.....	27	30	29	33
Superfine.....	31	—	33	—
Lincolnshire, Yorkshire, and Stockton.....	36	29	29	32
Northumberland, Berwick, and Scotch.....	26	29	29	32
Irish.....	26	29	29	32
Extra.....	—	—	—	—

WOOL MARKETS.

BRITISH.

Per lb.	FEBRUARY 1.		MARCH 1.	
	s.	d.	s.	d.
Down Tegs.....	1	8	1	9
Half-bred do.....	1	9	1	10
Ewes and Wethers.....	1	4	1	5
Leicester Hogs.....	1	6	1	7
Do. Wethers.....	1	2	1	3
Blanket Wool.....	0	8	1	3
Flannel.....	1	3½	1	6½
Skin Combing.....	1	1½	1	3

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th Feb. 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat.	Barley.	Oats.	Rye
	qrs.	qrs.	qrs.	qrs.
Quantity imported....	1	..	..	..
Do. entered for home consumption.....	577	..	..	..
Do. remaining in warehouse.....	592,596	49,540	232,995	3,440
	Peas.	Beans.	Maize	Flour.
	qrs.	qrs.	qrs.	cwts.
Quantity imported....	272	1,090	476	4,658
Do. entered for consumption.....	56	2	108	1,534
Do. remaining in warehouse.....	7,911	3,388	1,142	227,684

LIVERPOOL.

WEEK ENDING FEBRUARY 20.

ENGLISH WOOLS since last week have improved in value, and the demand at present exceeds the means of satisfying it. This has consequently induced holders to ask the best prices, the annexed quotations being fully supported. Combing fleeces, 18d to 18½d per lb; Down ewes and wethers, 17½d to 18½d; ditto tegs, 20d to 21½d; super. skin, 17½d to 18½d; head ditto, 14½d to 15½d.

SCOTCH WOOL.—There has been a farther advance in the value of Highland Laid Wool this week. Several parcels have been sold towards the latter end of the week at our highest quotations. The transactions in Cheviots, although inquired after, (from the lightness of the stock,) has been trifling, at rather better prices.

STOCK OF GRAIN AND CLOVERSEED IN BOND IN THE PORT OF LONDON ON THE 5th FEBRUARY.

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Clovers.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
240,970	11,077	77,370	1,050	3,648	53,437	34,238

IMPERIAL AVERAGES.

Week ending	Wheat	Barley	Oats	Rye	Beans	Peas
8th Jan.	36 6	27 8	18 7	37 0	33 4	34 3
15th "	37 0	28 1	18 9	25 8	33 3	34 5
22nd "	37 10	28 9	18 10	22 7	34 7	34 0
29th "	39 3	28 11	19 6	26 0	33 10	33 6
5th Feb.	39 7	29 2	19 8	27 10	34 2	33 4
12th "	39 7	29 0	19 8	27 6	34 7	33 2
Aggregate Average of the six weeks which regulates the duty.....	38 4	28 4	19 2	26 11	33 9	33 9
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London.....	48 8	19 10	18 3	30 2	19 9	19 5
Do. on grain from British possessions out of Europe.....	5 0	2 6	2 6	3 1	3 0	3 0

BOROUGH AND SPITALFIELDS MARKETS.

Per ton.	FEBRUARY 1.			MARCH 1.		
	£ s.	£ s.	£ s.	£ s.	£ s.	£ s.
Ware, Scotch reds.....	4	0	4 10	4	0	4 10
Marsh Champions.....	3	10	4 0	3	10	4 0
Common reds.....	3	10	4 0	3	10	4 0
London whites.....	3	5	3 15	3	5	3 15
Shaws.....	3	5	3 10	3	5	3 10
Middlings, Scotch reds.....	3	10	3 15	3	10	3 15
Marsh Champions.....	2	15	3 5	2	15	3 5
Common reds.....	2	15	3 5	2	15	3 5
London whites.....	2	5	3 0	2	5	3 0
Shaws.....	1	15	2 15	1	15	2 5
Chats, 17s to 17 10s per ton, Onions, 2s to 3s 6d per bush basket.						

SCOTCH.

Per Stone of 24 lbs.

	FEBRUARY 1.		MARCH 1.	
	s.	d.	s.	d.
Laid Highland Wool, from 10 6 to 11 0.....	12	0	12	6
White Do. Do.....	14	0	14	6
Laid Crossed Do.....	14	0	16	0
Washed Do. Do.....	15	0	17	0
Laid Cheviots.....	16	0	18	0
Washed Do.....	22	0	25	0
White Do.....	28	0	38	0

FOREIGN.

MARCH 1.

	s. d.		s. d.	
	s.	d.	s.	d.
Australian, or New South Wales, from.....	2	0	3	0
Tasmania, or Van Dieman's Land.....	1	8	2	0
German (in fleece).....	2	3	3	2
Spanish.....	2	0	2	8
Cape.....	1	3	2	3
Smyrna (cleaned).....	0	8	10	0
Ditto, superior.....	—	—	1	10
Odessa } Merino.....	2	0	3	0
} Coarse.....	0	8	10	0



# THE POLITICAL COMPANION

TO

## THE FARMER'S MAGAZINE.

[Our object in appending a Political Companion to the Farmer's Magazine, was to put our readers in possession of the opinions of the most talented journalists of the day, on *both* sides of any important question which might come under discussion. We trust, therefore, that in giving insertion to articles, which seem opposed to the agricultural interest, we shall not be considered as acquiescing in the doctrines therein advanced, our sole purpose being to enable our readers to estimate the truth or detect the fallacies of the arguments advanced.—ED. FARMER'S MAGAZINE.]

### THE AGRICULTURAL COMMITTEE.

(From the *Morning Herald*.)

Without indulging in any Utopian schemes for bringing back their golden days of vanished prosperity to the farmers of England, we have from time to time pointed out some of the means by which the deep and extensive distress that now afflicts the agricultural classes might be in some degree alleviated. In doing so we have not proposed that in relieving the interests of one industrious society that government should sacrifice those of another. In truth, the interests of all classes of the community, though to the eye of superficial observation distinct, are so intimately interwoven and blended with each other, that the injury inflicted upon any one of them extends, by a sort of social sympathy, to the rest. The distress of the landowner affects the tradesman; the profits of the shopkeeper suffer from the poverty of the farmer. In the failing resources of other classes the useful industry of the mechanic, the ornamental talents of the artist, and even the learning of the scholar, receive less encouragement and reward. The whole fabric of society is one of mutual dependence and mutual support from the solid foundations to the high and glittering pinnacles.

Agricultural industry is only despised by those who are themselves of mean and despicable intellect. That industry is the root of all the rest. The learned Thebans of the modern school of political economy are accustomed to speak of the landed interest—of farmers, their understandings and pursuits, with pedantic superciliousness and flippant contempt. Yet mankind must have bread before books—subsistence before knowledge—the necessaries of life before its conveniences and embellishments. The agriculturist sows the acorn which, in course of time, furnishes the material that the ship-builder forms into the stately vessel to bear the bales of the British manufacturer over the seas, and to return laden with the silks of India, the spices of Arabia, and the gold of Ophir. To carry the produce of the plough as well as of the loom, commerce spreads her thousand sails upon the ocean—but our pseudo-patriots fling contempt upon the British plough, and treat the British farmer as no better than an alien in the land which his industry has enriched and adorned.

In a little work called "Reasons and Plans for the Encouragement of Agriculture," which is written with ability and good sense, and with no undue leaning to the agricultural interests at the expense of others, very different sentiments are inculcated from those with which the Gamaliels of political economy inspire their pupils. It is there said,—

"Every one who has a spark of patriotism in his soul, must wish to see the tillers of the soil—the peasant to supply our armies—the yeomen to protect our rights and liberties at home, prosperous and contented." How this patriotic object can best be effected has caused much variety of opinion among those who are sincerely anxious for the relief of the farming interests. For our own part, we cannot flatter the hopes of the farmers so far as to favour the presumption that it is possible, by the magic "omnipotence" of parliament, to let in a sudden tide of prosperity on the land which will run over sands of gold; but we have shown that something can be done in lessening the fiscal burdens which the farmer has to bear, especially in regard to local taxation. In the report of the Committee of the House of Commons of last session on county rates, the following passage occurs:—"The poor rate is heavier—the county rate is heavier, the highway rate is increased," and the evidence would lead to the conclusion that the outgoings of the farmer are larger than he can afford to pay during the present prices of agricultural produce. Hence it becomes important that parliament should watch with jealousy those burdens which are imposed by law on the land, and which it is within their competency to revise and modify. In the same report, as the little work which we have quoted reminds us, it is recommended that the county rate should be reduced by making it no longer liable to bear the whole charge of criminal prosecutions, but which should be paid out of those funds to which the general mass of property throughout the country contributes more equally than it does to the county rate. The highway rate it is proposed to reduce prospectively, and at the expiration of existing local acts, the roads leading to and over county bridges or turnpike roads should be repaired at the expense of their respective trusts, and, according to the report, for this reason, namely, "that the gross expenditure on highways in England and Wales is, in round numbers, one million and a half sterling, of which two-thirds are levied directly on the land. A fresh valuation of the property on which the county rate is levied is also recommended in all cases where no valuation has been made within the last fourteen years. The object is stated to be to make property in towns contribute in proportion to their growth in wealth and population, and so far relieve landed property and the farming tenantry from an undue pressure of the county rate." All these suggestions are good as far as they go. The relief they can afford must be partial and limited, but still it will be some relief. Along with these a better and more equitable arrangement of the land-tax—a commutation but not

a confiscation of tithes—and a poor-law for Ireland, may do much good; but the whole taken altogether, though tending greatly to alleviate distress, will hardly be sufficient to restore prosperity.

Another means of affording relief to the agricultural interests, to which we have alluded more than once already, is the placing a tax on Russian tallow, which would, as we showed on a former occasion, and as Mr. Handley since proved, in a speech that appeared in our columns, assist one branch of British manufacture, which is now in a declining state, by allowing the removal of the tax on soap, without any very sensible diminution of the revenue. In the debate upon the repeal of the excise on candles, we find the following observations of Mr. Hume recorded:—"I would suggest to the noble lord the expediency of taking off the tax on soap altogether, and imposing an additional duty on Russian tallow, by which we should prevent Russia from taxing England, as she now does, to the amount of 600,000*l* a-year, which might be put into the pockets of our landed proprietors without the least mischief—for to Russia we owe nothing." We do owe Russiasomething—we owe her our hatred and contempt for her cruelty to the brave people of Poland—for her violation of the faith of treaties—her perfidious and circumventing policy, and her most illiberal and restrictive tariff which she now extends to the frontiers of Poland; yet we pay her 600,000*l* a-year, that ought to go into the pockets of our own landed proprietors.

We need not here repeat the arguments which we formerly addressed to the public and the legislature upon this subject. A calculation is made in the pamphlet before us, of which we have only room to copy the results. They are as follows:—

"Excise duty on soap, direct and indirect £825,000  
From this deduct the proposed tallow duty 550,000

And the public will gain . . . . . 275,000  
The agriculturists will gain . . . . . 350,000

"The labourer will gain, by decreasing the expense of cleanliness, by the consequent increase of comfort and health.

"The manufacturer will gain by having an open trade, and the removal of the trammels of the Excise, and the total abolition of smuggling.

"And the revenue, by a transfer benefiting nearly every class in the state, will only lose 250,000*l* out of 1,500,000*l* surplus, and thus in all probability only a temporary loss, as the encouragement that would be given to foreign trade, from an important branch of which the manufacturers are at present excluded by the vexatious operations of the Excise laws, would very speedily replace so small a sum."

#### THE COMMITTEE ON AGRICULTURE.

(From the Morning Post.)

The appointment of a committee of the House of Commons to inquire into the situation of the agricultural classes, with a view to devise a remedy for the distress in which they are generally involved, is an occurrence from which the landed interest of England cannot fail to derive much gratification. The agriculturists have now a fair opportunity of showing, by evidence, that certain reductions of the taxes more immediately affecting them, which the Whigs refused to accomplish when they had an opportunity of doing so, would have prevented or greatly mitigated the distress under which they at present labour; and to this point, we respectfully suggest, their efforts ought principally to be directed. The

debate of last night must have proved to them that it is only by directing and confining their attention to practical measures, and by completely and at once throwing overboard all the systems of idle theorists, they can hope to obtain any measure of real and substantial relief.

The able speech of Sir Robert Peel claims the special attention of the agricultural body. The right hon. baronet is identified with them in feeling as he is identified with them in respect to his most important interests, and the doctrine which pervades his excellent address of last night is the same as he has always proclaimed, viz., that no distinct class of the community can rightfully claim that the general relations of society should be disturbed for their special benefit, or can rationally expect that their peculiar interests could be promoted by such a disturbance. Upon the subject of the currency, Sir Robert Peel is entitled to a degree of deference, greater even, if that be possible, than he could fairly claim on account of the perfect possession of the subject which his own talents and opportunities have enabled him to acquire. He represents upon this subject all the living statesmen of Great Britain—all the men, of whatever party, who have at any time been called to consider it under that awful sense of responsibility for the general welfare which high office only can impart, and with that extensive and universal information as to the various interests of the community which an elevated station in the government of the country only can afford. We trust, therefore, that upon this topic the committee just appointed will not waste its time. There are many subjects for its consideration which, if less comprehensive, are likely to be more productive of beneficial results. The system of taxation, for instance, as it affects the agricultural compared with other classes of the community; the peculiar pressure of poor-rates, county rates, and other local charges upon the owners and occupiers of land; the effect upon British agriculture produced by the absence of any legal provision for the poor in Ireland, the abject and impoverished condition of the Irish labourers, and the quantity of exportable productions reared upon Irish estates—all these are subjects well worthy of the attention of an agricultural committee, and calculated to occupy its attention fully, and to occupy it in a manner which will afford some prospect of results practically beneficial. From any theories, or any collection of theories, however complete, on a medium of exchange regarded by all competent judges as permanently and unalterably fixed, no practical consequences of any kind could be expected.

There is some reason indeed to think that the noble mover of the committee would not be very sorry to see it entangle itself in speculative inquiries of the nature to which we have alluded. Anything, we believe, would be more agreeable to the present ministers of the crown than the close and accurate investigation of questions of real utility. In saying this we do not mean to impeach the constitution of the agricultural committee, as appointed on the motion of the noble Secretary for the Home Department. It contains a considerable preponderance of men known to be identified by sympathy and interest with the welfare of the agricultural classes. The noble lord, however, permitted one to be added to the original number, without a division, to the committee he had appointed, and successfully resisted, by a majority of seven, the addition of three other names to that body. We institute no invidious comparison between the respectable gentleman whom the noble lord adopted as a member of his committee and the equally respectable gentlemen, whom he rejected, when we

mention that the former is known to entertain peculiar views in relation to the currency, and to be connected with the trading more than with the agricultural interests of the country, while the three latter—namely, Lord Darlington, Mr. Wodehouse, and Sir C. Burrell—have, so far as we know, no individual crotchets or special lobbies, but are eminent members of the agricultural interest. The facility of admission in the one case contrasts rather inauspiciously with the division of the house, and the victory, by a majority of seven, in the other; and the whole circumstances taken together would almost justify the suspicion that the noble mover of the committee would not be much displeased to witness the distraction of its councils and the frustration of its practical ends.

If such a scheme have entered into the imagination of his Majesty's ministers, we feel confident that it will prove abortive. The good sense and practical information of the committee, as actually constituted, afford a sufficient guarantee that such a project would certainly sustain a complete and disgraceful defeat.

#### THE COMMITTEE ON AGRICULTURE.

(From the Standard.)

The committee is appointed—appointed with full powers to inquire into the whole subject, in all its breadth and bearings; and though not precisely constituted as could be wished, still the presence of such members as the Marquis of Chandos, Sir Robert Peel, Sir J. Graham, Mr. Matthias Attwood, Lord Stanley, Lord Francis Egerton, the Earl of Lincoln, and a few more whom we might name, afford a pledge that the investigation will be prosecuted prudently and honestly; and from a prudent and honest investigation of their sufferings and their claims, the agriculturists of Great Britain have everything to hope, and nothing to fear. Let it be once shown to the people of England that so large and so meritorious a class of their countrymen are unjustly aggrieved, and to treat the grievance as beyond remedy, were to distrust the power or the will of the British nation to do justice—a diffidence, which we, at least, never have entertained, and never will entertain.

Notwithstanding that Lord John Russell had engaged to leave the committee wholly unfettered, as to its researches, and deliberations, and notwithstanding that the Marquis of Chandos had rivetted his lordship to the pledge by reciting it, and giving an acknowledgment in his thanks—notwithstanding this clear and satisfactory understanding Mr. Thomas Attwood was pleased to attempt giving, at least, a bias to the inquiry, by proposing an amendment to the effect, that the currency question should form a principal subject of the committee's consideration. Nothing could be more mischievous than this amendment, however it was intended. The currency question was not proposed to be excluded; therefore, so far as the change in the currency is connected with the distress of the agriculturists—and the connection is close, if not essential—it will properly come under the notice of the committee. But, we believe, that it were an unprofitable squandering of the committee's time; and, what is much worse, a giving a false direction to its pursuit to go further.

The change in the currency may have caused the distress of the agricultural class; but, it does not follow that to reverse that change would repair the evil. Compensation in such cases is not only easier, but more promising of effectual relief, than simple resti-

tion. However, it is unnecessary to argue this matter, because we believe, that in the present state of the public mind, and indeed, until every other means of restoring the agricultural interest shall have been fairly tried, without success, any interference with the currency is a moral impossibility. We may regret this, and we do regret it; but it were to be blind to the most common instincts of mankind, not to see that where the monied class—and the man who has saleable goods, or 100*l.* in money, or 100*l.* due to him, or the smallest sum in stock, is as much a member of the monied class as the *Millionaire*—will not consent to a measure of partial relief, confiscating, for the benefit of others, no inconsiderable portion of their wealth or capital. Whoever, therefore, directs the agriculturists to the restitution of a paper currency, rather than to a claim of compensation, in some other quarter, for their losses by the bill of 1819, renders them the sinister service of misleading into the road of disappointment from a path of possible, and even probable relief.

This seemed to be the universal opinion of the house, for Mr. Attwood could not find a seconder, and his amendment of course fell to the ground.

#### THE AGRICULTURAL INTEREST.

(From the Norwich Mercury.)

Our readers are not now to learn the studious, not to say the laborious attention, we have for so many years given to the concerns of agriculture. We trust we have established and confirmed in the minds of the landed proprietary, the tenantry, and the labourers, that we have their joint and several interests profoundly at heart. It is necessary to recur to these facts, because in the proceedings of the society calling itself central, which has sprung up in London, we think we read an attempt (abortive it will surely prove) to set up separate claims, and to dissociate rather than unite the several classes of the kingdom in a vain, however honest endeavour, to rescue from their depressed state the owners and cultivators of the soil; we use the word "vain" in reference to the means proposed by the society, for God forbid it should be so in any other sense; we read this empirical process in their proceedings and we wish emphatically, to divide the persons from their transactions, for it is impossible not to respect both the men and their motives. Earl Stanhope, who is in truth the head and fountain of the whole, is a nobleman of no mean capacity, alike earnest, industrious, acute, and upright. His views, we know, are most philanthropic. It is therefore with considerable reluctance that we can bring ourselves to demonstrate the faulty construction of a set of resolutions, bearing the signature of such a nobleman heading so respectable an association. But it is of the utmost consequence to the landed interest in its three classes, that the foundation upon which they build, should be laid thoroughly open to general inspection—that done, let the landed interest and the public at large be the judges, it is their own cause we plead.

We have then in the petition transmitted to us last week by Edmond Wodehouse, Esq., the manifesto of the society—the syllabus as it were of their lecture, the short abstract of their principles, which may lead us to apprehend their intended practice. Let us examine its contents.

The first clause declares the distress of the agriculturists. Is this all? No. It also declares that the distress has "arisen mainly from legislative measures, and not from causes which are beyond the con-

trou of parliament." This is difficult to disprove, because the averments are general. Had the resolution boldly denounced those which it is intended to cover not conceal, had it said, the adoption of a gradual scale of duty, admitting foreign corn at all times, and Peel's Bill have ruined agriculture, (which is we presume what is intended) there would have been tangible ground. But these disputable, not to say disproved points, the petitioners are too wary to disclose. The reservation is hardly fair and straightforward, but we must take it as it stands. We therefore say at once, the distress [*i. e.* the low price of wheat] has *not* "arisen from legislative measures," but "from causes beyond the controul of parliament."

We assert, nor do we fear contradiction, that the proximate cause of the distress of agriculture is to be traced to a supply more than equal to the demand. Observe we say the *proximate* cause. The causes of this cause are a succession of favourable harvests, and improved and extended cultivation in England, Scotland, Ireland, and the Colonies. Now we dare not, nor even do not aver, that legislative measures have not contributed to the prosperous agriculture of the Empire, but surely this effect furnishes no just ground of complaint? The country desires to see the Colonies, Scotland, and most especially Ireland, raised in the scale of wealth and comfort, which begins by increase of production. In this sense the petitioners are right, but this is exactly the opposite sense to that in which they wish to appear right. They wish to establish that the legislature has done mischief, not good, and it is in this they so egregiously fail in the outset. But to take the two postulates—the graduated scale and Peel's Bill. The experience of between thirty and forty years had proved a certain importation *indispensable* to the support of the population—indispensable to the *prevention of famine*. Fixed duties had been tried—first high and then low. What followed? Why a short home supply—high price for a short duration, opening the ports, and then a long and ruinous depression. This scheme obviously failed. The graduated scale was then tried, and though fluctuation, perhaps we may be justified in calling it extreme fluctuation, was not absolutely avoided, yet the price was steadier, until the plenty of the last three years threw down the price, irrevocably, so far as we have yet seen. The British and Irish grower and the English colonist have had the monopoly of the market, but supply exceeds demand, and nothing parliament could or can do, short of decreeing the exclusion or destruction of a portion of the crop, can give relief. And what has been the consequence to landlord, tenant, and labourer? Why an artificial and suppositious standard of value, never reached, has kept up an artificial but *real* standard of expences, rent, tithe, taxes, &c. which have drained the operative, the farmer's capital into other men's pockets, and disturbed and vexed all their several relations. The landlord is compelled not only to reduce, but subsequently to remit as a benevolence a part of his rent—the tenant is thus degraded, and the labourer is unemployed. Now had things found their level, that to which they are rapidly approaching—the level established by the immutable law of supply and demand, none of this would have occurred. The farmer, to use a phrase in the petition to which we shall presently come, would have "brought down the burthens (namely the expences attending a farm) to the level of the present prices," *at once*, not by driblets ruinous to himself without benefiting the other orders. This was the course we recommended at the peace

—this was the course we have ever since been urging—and this was the course which would have saved the agriculturists. Again reader observe—all that we assume, all that we take for granted is, that the legislature cannot, will not, dare not interfere to impede the agricultural improvement and progression of Scotland, Ireland, and the Colonies; and if it do not so interfere, the progression of an improved and improving agriculture will continue to feed the markets, in fair average seasons, to the utmost limits of demand.

Now then for the other measure—Peel's Bill. In our postscript of November 28 last we showed, that an increased circulation of paper could have little or no effect upon the price of corn. After so recent, and we hope so clear an exposition of the fallacy, there can be no occasion for us to go again over the same grounds. They are simply these—capital is superabundant—the banker will not lend to the farmer, because his trade is not prosperous, nor will the merchant speculate in English corn, because there has been little or no probability of a rise, and because foreign affords the best (bad is the best) chance. There is yet another truth which puts our position past controversy. A table has been constructed, we believe originally by the Editor of *The Mark Lane Express*, whose clear views and courageous assertion of them does him high honour—"showing the average prices of corn, and the average amounts of bank circulation from 1797 to 1832. It is well known that the circulation of country banks contracts and diminishes with that of the Bank of England, because they being liable to be called upon to pay their notes in gold or bank paper, must, of course, regulate their issues by the means they possess of obtaining those equivalents. From this table it appears that in 1801, the price of wheat was 5*l* 15*s* per quarter, and the issues of bank notes fourteen millions; in 1822, it was 2*l* 5*s* with an issue of seventeen millions; in 1824, 2*l* with twenty-one millions of paper. Thus the highest price was attained with the very lowest issue of bank-notes, and the very lowest with the largest. But on a further inspection of the table, it sufficiently points out the cause: the years of high price were years of a defective harvest, 1801, 1805, 1812, (when the price was 6*l* 5*s* the issue twenty-three millions), and 1817. If the quantity of issue were an effective cause, how happened it that in 1817 the price reached only 4*l* 15*s* when the issue was the very highest the kingdom ever knew, namely, thirty millions? and how did it occur, if Peel's Bill were an operative cause, that wheat bore the same rate in 1815, four years before it passed, that the same grain did in 1825, 1829, and 1832? How happens it that barley was last year so high, and wheat so low? What can account for the fluctuations of wool? Not the currency, but the simple state of demand and supply."

Thus we have demonstrated that the first position of the petition ends in what logicians call *reductio ad absurdum*—In plain English, that it is stark *nonsense*. To proceed—

That extreme distress may lead to convulsion we are but too ready to admit. That the continuance of distress will disable the distressed from paying taxes is also a truism; but it is a mere though a miserable truism. What must be the end? Why the reduction of taxation by means of the reduction of establishments. Amen and so be it. The Reformers have reduced five millions after the Tories (Sir R. Peel himself) had declared further reduction impracticable. Between thirty and forty millions have been reduced since 1816. The Reform Ministry, if permitted to remain in power, will pursue the same

career, if not, the people will enforce reduction. The Central Association will not forward the good work an atom.

There is no greater nor no more popular fallacy in political economics than that which lurks under the passage in the petition we now cite.

"That the interests of the retail dealers, and of a large and important class of manufacturers throughout the country, are inseparably connected with those of the agricultural classes, of whom the consumption and expenditure are very materially reduced by a continuance of the present distress."

It is true, perfectly true, that the prosperity of the whole is bound up together. But what is the meaning of this resolution? Give us high prices and we will give you a brisk trade. But how are the means of this brisk trade to be thus furnished? Why first from the manufacturers. Give us a high price for our corn—our commodity—and we will return part of that high price to you for your manufactures—your commodity. This sort of reciprocity acts precisely like the enlarged expenditure of Government in consequence of an enlarged taxation. Government first comes to the country, and says, pay me a million.—The country pays it. Government then comes and says build me a fleet, and I will lay out your million in the purchase. It is clear the individuals composing the nation would have been as rich either with the money originally in their pockets, or with the ships in their possession—but in this case they first part with their money, and then give the produce of so much labour, the fleet, to get it back again. In a word, they give their labour for nothing. So when the landed interest says give us a high price for your bread and we will give you that money back again for your clothes, it is no less clear the manufacturer gives first his money and then his labour to get the extra price back again—or it is at best a money change of equivalents, the price being merely arbitrary and nominal. Not to perceive this (which the Central petitioners appear not to perceive) is to be alike shallow and ignorant of the first principles of barter and exchange. Such is not the way to enrich either class. If the corn grower can add a bushel per acre to his production, that is so much clear gain, so much additional wealth. For admitting abundance to produce low price, as the price of all other commodities fall with the price of subsistence, he will be able to command just as much as the additional value of his additional bushel will purchase. Mere elevation or depression of price in any other sense reduces itself to a mere exchange of equivalents, and becomes therefore only nominal.

The danger to the fundholders from agricultural distress, as it is called, there is strong cause to doubt—and for this reason. The revenue of a country is neither more nor less than a per centage ON ALL ITS PRODUCTIONS. Now we see that although it must be admitted, two bushels of wheat are required to pay the share of taxes paid by the landed interest which one at double the price would pay, there are abatements, and no very slight abatements. *Half the taxation has already been reduced* since wheat was at seventy or eighty shillings a quarter upon an average. An increasing population must almost necessarily create a proportionately greater production. Taxation is not only therefore less (perhaps proportionately less) but there is an indefinitely augmented fund of production to draw from—agricultural in part—else how has supply equalled demand, and brought down price? and of manufactures still more considerably.—The assertion "that the present distress very much affects also the interests of the fundholders, as it will ultimately render precarious,

and perhaps impossible, the payment of the dividends," appears then to be altogether a gratuitous and not very probable assumption on the part of the Central Petitioners.

The next paragraph, which relates to the non-employment of labour, is another truism—lamentable enough, God knows: but what then? If want of employment necessarily follows the abstraction of the tenant's capital from his pocket, REDUCE HIS FIXED EXPENCES, RENT, TITHES, and TAXES. His fluctuating expences, labour, seed, horseproven-der, tradesmen's bills, all the other components of of price fall with the fall of the price of subsistence, they have already fallen—the remedy lies then with the Landlord, the Parson, and the Government. What is the use of puling about the employment of labour being "rendered very precarious by the rapid reduction of agricultural capital." The remedy, Gentlemen and Clergy of the Central Association, lies mainly with yourselves, at least so far as your own postulate is concerned. Had not the farmer been gulled since 1816, by protecting laws, his capital would not have been rapidly reduced, because he would have of his own motion, "reduced his own expences to the level of the present (that is to say, the existing) prices." But the petitioners overleap a very material truth in the hope of strengthening their case, by the assumption that labour has gone out of employment, mainly because the farmer's capital has been drained away from him. That farmers should be blockheads enough to maintain the labourer in the condition of a pauper (for the man and his family must be clothed and fed) at an expense nearly equal to that he would incur by employing him and reaping the benefits of his labour is credible only to a limited and small extent. The fact is, labour, like wheat, has felt the force of the law of demand and supply. Labourers have multiplied, while the area of employment has not been enlarged. Hence a glut in the labour market, hence the greater appearance of the want of employment, far more than from the drain upon the operative capital of agriculture, heavy though it has but too surely been.

We come now to the only single sentence of decently common sense in the whole petition, and which is in truth Earl Stanhope's first resolution, namely:—

"That nothing can remove the present overwhelming distress but the adoption of some measure which will either raise the price of produce to the level of the burthens imposed, or bring down the burthens to the level of the present prices."

"I hope here be truths" as the clown says in Shakespeare. Why to be sure, Gentlemen, you are perfectly right, if a man cannot get the cost for the article he makes, he must reduce the cost—and what is more, *he will*. Now it is as palpable as the light of day, that nothing, save the visitation of death by Providence, can raise the price of corn, the cost of producing it must then be brought down to meet the price. We have shown the elements of price that have and those that have not conformed. *Down must come rent, tithe, and taxes*. If the farmer be bamboozled by any other hope, he will be drawn away from his true interests by a Jack o'lantern, and the little property he has left will sink with him in the bog into which he will be allured. Let not the Landowner or the clergyman conceive we are opposing their interests. We are merely showing the case as it stands. In morals, in physics, in commerce, or in art, we must take the facts as we find them, no matter to what they tend. The facts must direct our reason and our practice—all other is but false philosophising. There is no truth more important to the calculations of the landed interest than this,

The only point in which we agree then with the Petitioners, is in the general lamentation for the calamity which has fallen upon the landed interest, and in a more confident belief than it vent res to express, that Government and the legislature will do all that legislation can do for them. But if (as we imagine) they shall be delivered from some part of the malt tax (a doubtful and at any rate a brief resource,) if certain of the taxes that bear directly upon agriculture, be changed for others less direct, still it will be found the case of the Waggoner and Hercules—he may pray to the greater power, but he must set his shoulder to the wheel and help himself. Associations and a Central Society may be beneficial inasmuch as they open his eyes to scientific improvement and enlarge the knowledge and practice of his art. But if they lead him from home, if they take money out of his pocket and teach him to expect aid which cannot be extended to him, such as we have shewn this nonsensical petition would persuade him to believe, he will only find himself in a worse situation than he stands at present—with less property, more exhaustion, and more exasperation, at which indeed it is one of the many faults of this most faulty composition before us to point with too great force and apparent reliance. Menaces, even in the shape of hints and apprehensions, neither can nor will do anything in this case. FARMERS OF ENGLAND! Take Earl Stanhope's alternative proposition—follow it sternly and steadily. *Bring down the burthens to the level of the present prices, and you will be safe—there is neither safety nor success to be assured in any other course.*

#### THE CORN TRADE.

(From the Liverpool Times.)

A plan has for some time been under discussion in this town, bearing on the Corn Trade and the Agriculture of the United Kingdom, which from its feasibility and importance we shall lay before our readers, and to which we beg to call the attention of the shipowners of this port, as well as of all persons interested in the trade with the West India Colonies, and in the agricultural prosperity of England and Ireland. After a good deal of discussion, the outlines of the plan have been agreed on, and at a meeting of merchants held on Thursday last, they were embodied in the form of resolutions, and made the subject of a memorial to the Board of Trade, which now lies for signature in the Exchange News-room, and has already received the signatures of many of our most intelligent and respectable merchants. The plan, as will be seen from the following statement, divides itself into two parts, the principle object of the first part being to relieve the holders of foreign corn, now in bond in this kingdom; and that of the second to open a new outlet for British and Irish wheat, and thus to remove, as far as possible, the depression under which the agriculture of the kingdom is at present suffering.

Our commercial readers are all aware that the British Colonies in the West Indies, as well as the Island of Newfoundland and some of the South American States, have been for many years supplied with flour from the United States, and that neither England nor any other nation has ever yet attempted to compete with the Americans in this branch of trade, which now takes off about 900,000 barrels of flour every year, of the value of more than a million sterling. The comparative dearness of corn in England and Ireland rendered it impossible for the British corn grower to compete with the American, whilst the nations of the Baltic having few mills and

no great commercial enterprize, have not hitherto sent their corn in a ground state to the West Indies. Hence, with the exception of a moderate quantity of flour sent from the Canadas, the Americans have long enjoyed the sole command of the market. Within the last year, however, a great change has taken place. From the deficiency of the harvest in the United States, the price of wheat, and, of course, of flour, has greatly risen in the American market, whilst from the abundance of English and Irish harvests, it has fallen in as great a proportion in this country. The price of wheat in the States at present, according to the memorial which lies for signature in the Exchange Room, is from 42s to 46s a quarter, whilst the average of all England is only 37s. Thus even English wheat is at present cheaper than American, and as for bonded foreign wheat it may be bought in Liverpool at from 25s to 28s per quarter. Already English flour has begun to be exported to the West Indies, and if the foreign corn now in bond in this country was allowed to be ground into flour, and exported, the holders would, of course, be relieved from what threatens to be a ruinous speculation, the English shipowners would be benefited to the amount of the freight, the English and Irish millers by the grinding, and the West Indians would obtain their flour one-third cheaper than at present. This, therefore, is an object of the greatest consequence to all the parties, and accordingly it is with the holders of foreign wheat that the first part of the plan originated, the object of which is to have a bill passed similar to the Grinding Bill of 1824, authorizing the grinding of the 600,000 quarters of corn now in bond in this country for the purpose of exportation.

There are, however, several eminent houses in this town, interested in the British and Irish Corn Trade, who strongly object to the transference of this new market for grain from the corn growers of the British Empire to foreigners, and who contend that British interests ought first to be looked to. For their satisfaction the second part of the plan has been devised, the object of which is to secure first, the interests of the English and Irish corn growers, and secondly, those of the holders of foreign grain. The manner in which these objects are to be effected is as follows:—

It is proposed, that when the prices of British grain are depressed, as they are at present, every person exporting a barrel of British flour shall receive, as a bonus for so doing, a certificate authorizing him to release, at any future time when he thinks best, as much foreign grain as can be liberated by the amount of duty which was payable on the import of a barrel of flour at the time when his export took place. Let us suppose that the barrel of British flour is exported to-day, and that the duty on a barrel of foreign flour this day is 25s 8d. The exporter having received his certificate or debenture, may immediately bring out of bond a barrel of foreign flour, and sell it in the market free of duty. But in place of this, he has the option of keeping the certificate until the price of British corn has risen, and until the duty on foreign corn has fallen, and then he is authorized to bring out of bond not only one barrel, but as much more as the sum of 25s 8d will set free, which may be a barrel and a half, or even, if the price has risen greatly, two barrels. Thus, as a bonus for exporting one barrel of British flour at the present time, when the prices are greatly depressed in the home market, he receives the privilege of introducing one and a half or two barrels of foreign flour into the home market, when prices have become better. The certificate or debenture may also be

made saleable in the market, like an Exchequer bill, and thus be transferred from hand to hand at pleasure.

The advantage of this plan to the British and Irish corn-grower and miller is, that it gives to the holders of foreign grain a strong motive for exporting British flour, and is thus likely to raise the present very low prices of British produce; whilst the advantage to the holder of foreign grain is, that it gives him the power, when prices have risen, of introducing, duty free, a quantity of foreign corn more than equal to that exported when they were low. It is the opinion of persons well acquainted with, and deeply interested in both the British and foreign corn trades, that the plan would be found very beneficial to all parties interested in the trade, whilst its advantages to the shipowners, who at present find it difficult to obtain freight from this country to the West Indians themselves, are too obvious to require any observa-

Upon the whole, we think, that this scheme affords, what was omitted in the Corn Bill, a very salutary bounty on the export of British and Irish Flour, when the price becomes so grievously depressed as of late; and we see no plan so well calculated to raise prices now, nor one so likely to prevent the recurrence of such low ones for the future.

## THE CORN AND FLOUR TRADE.

(From the *Liverpool Times*.)

The plan for the permanent relief of the British Agriculturist, developed in the last number of our paper, has been laid before some of the members of Government, and also before many noblemen and gentlemen connected with the landed interest, and has generally been received by them with favour. In those cases where it has not it has been rather because the question was not clearly understood than because any objection to the plan could be shown to exist, or because any flaw was discovered in the reasoning on which it rested. The plan certainly requires consideration before it can be appreciated or even fully understood, but the advantages to all the interests involved in the scheme are sufficiently great to render it worth the effort. When once understood the mode of working will be easily seen, and the chances of success and advantage be easily calculated.

As this article may fall into the hands of some who have not seen the plan as described in our last paper, we republish it for their information, before making a few additional observations upon it. It is as follows:—

“It is proposed, that when the prices of British grain are depressed, as they are at present, every person exporting a barrel of British flour shall receive, as a bonus for so doing, a certificate authorizing him to release, at any future time when he thinks best, as much foreign grain as can be liberated by the amount of duty which was payable on the import of a barrel of flour at the time when his export took place. Let us suppose that the barrel of British flour is exported to-day, and that the duty on a barrel of foreign flour this day is 25s. 8d. The exporter having received his certificate or debenture, may immediately bring out of bond a barrel of foreign flour, and sell it in the market free of duty. But in place of this, he has the option of keeping the certificate until the price of British corn has risen, and until the duty on foreign corn has fallen, and then he is authorized to bring out of bond not only one barrel, but as much more as the sum of 25s. 8d. will set free, which may be a barrel and a half, or even, if the price has risen greatly, two barrels. Thus, as a bonus for ex-

porting one barrel of British flour at the present time, when the prices are greatly depressed in the home market, he receives the privilege of introducing one and a half or two barrels of foreign flour into the home market, when prices have become better. The certificate or debenture may also be made saleable in the market, like an Exchequer bill, and thus be transferred from hand to hand at pleasure.”

It will at once be perceived by those who examine this plan that its principal result on the English and Irish agriculturist will be to equalize prices by diminishing the chances of ruinous depression at one time, and those of extravagant elevation at another. As soon as prices fall materially and unduly it will be the interest of the merchant to export British flour to the West Indies, to Newfoundland, or the Slave States of South America, and as soon as they have risen considerably it will be his interest to introduce his foreign grain into the British market, without waiting for the lowest possible rate of duty. The English and Irish farmers will thus have a new market for their produce, when the prices in this country make it most desirable for them to have it, and the English public, instead of seeing the averages worked by all manner of tricks, almost up to starvation prices, before a quarter of foreign grain is liberated, will see it gradually introduced as soon as the prices rise, and that in the manner and the quantities most likely to preserve the corn trade from ruinous fluctuations.

At present the English and Irish corn-growers have no mode of disposing of any part of their produce except in the home market, and this must ever be the case, unless some plan can be devised by which it can be made the same thing to the exporter whether he exports British or foreign flour. The export of British flour to the West Indies at the present time is a mere accident, and must cease the moment that prices fall in the United States, or rise (as they are doing) in this country. Without some such bounty as that recommended in our last paper, the export will not last three months; but, with the aid of such a bonus, it may become a permanent branch of trade. The privilege of introducing a barrel of foreign flour duty free into the British market, in return for every barrel of British flour exported, might itself be sufficient to induce numbers to take their chance of a profit on the export to the West Indies; whilst the privilege of introducing much more than one barrel for every barrel exported, gives the prospect of a double profit to the exporters, and will probably have the effect of rendering the trade both durable and extensive.

We have already shown how the first part of this plan would benefit the British corn-grower when prices are low, and we shall now show how the second would benefit the public when they rise. The interest of the holders of bonded grain in a rising market is to hold out as long as possible, and to raise the averages to the highest possible point. The interest of the holders of corn certificates would, however, be to get their corn into the market before the general holders of bonded corn could afford to compete with them. Hence bonded corn would come earlier into the rising market, and the markets would never rise to the extravagant prices which we have occasionally known. Steady prices are for the interest of all parties, and this scheme, by taking off surpluses, and promptly supplying deficiencies, would effect that object, so far as the irregularities of the season and the present working of the corn laws render it possible.

It must not be supposed, even if we take no part in this trade, that it will remain in its present state.

Last year 28,000 brls of flour were exported from Danzig to the British West Indies; the Hamburgers have gone even more extensively into the trade; and the corn-growers of the channel island of Guernsey have also begun to export flour to the same colonies. Another consequence of the export of flour from the North of Germany is, that the merchants of Hamburg have begun to send salt beef, pork, and other provisions of the same sort, along with their flour, as part of the cargo, and thus threaten to drive the Irish provision merchants out of the colonial market. If English merchants are to be allowed to go into the trade now is the time, whilst flour is dear in the United States, and before the merchants of Germany and the Baltic have occupied the market. When once they have got possession it will be no easy thing to drive them out, or even to compete with them.

Since the first part of this article was written, we have learnt that the Liverpool memorial has been laid before the Board of Trade, and referred by the Board to the Lords of the Treasury for their consideration. When the answer of their lordships is returned we shall lay it before our readers.

#### BONDED CORN.

(From the Times.)

It appears that some correspondence is carrying on with the Board of Trade by the leading merchants and members of the corn trade in Liverpool and in London on the subject of the proposed measure for allowing foreign wheat in bond to be ground into flour for exportation, and that they expect to succeed in carrying at least some modification of such a measure into effect. They have also devised some plans by which, as they conceive, any objections to it on the part of the agricultural interest may be removed. It has been proposed, among other expedients, that the preliminary operations should be carried on with English wheat, for which an immediate demand would thus be created, and a preference perhaps established for the flour produced by it in the West Indian and American markets. In return for this they have proposed that a privilege should be granted to them of taking out of bond, free of duty, as much foreign wheat as would be represented by the amount of duty, treating as foreign, of the English wheat ground into flour for exportation, the parties being permitted to select their own time for doing this. Thus, for example, supposing the rate of duty on foreign wheat, as regulated by the averages, to be 30s the qr, at the time when a given number, say 1,000 of quarters of English wheat are exported in the shape of flour, the merchant or exporter would in that case have his option of either taking out of bond immediately 1,000 quarters of foreign wheat, or of waiting for the chances of fluctuation in the amount of duty. If it fell to 20s, he would then be allowed to take 1,500 qrs of foreign wheat out of bond; or, on the other hand, if the duty rose to 40s, and he then thought proper to close his operation, he would only release by it from bond 750 quarters of foreign wheat. Intermediate fluctuations of duty to be regulated of course upon the same plan. The exporter, on certifying the shipment of the flour, would receive a debenture, which would be transferable, for the release from bond of a corresponding quantity of wheat to the duty payable at the time of the shipment. Others, however, foresee much difficulty in this plan, and content themselves with urg-

ing the experiment of grinding into flour for exportation the quantity of foreign wheat now in bond, under such regulations as might be thought proper. All further operations of the kind they would leave to be determined by the success of that experiment. A deputation has been appointed to carry on the communications with the Board of Trade on the subject.

#### THE AGRICULTURAL COMMITTEE.

(From the Times.)

The agricultural committee agreed to on Monday last by the House of Commons, is in the nature of a sop to a hungry dog, or of a toy to a wayward infant. Facts may be thereby collected no doubt—some well founded, others more apocryphal; but when gentlemen come to the chapter of remedies—that is to say, the only description of remedy which will be considered by those who seek for it worth a single straw—viz., the bolstering up of rents through artificial devices, of which the *modus operandi* is to be the raising the price of agricultural produce by special act of parliament, whilst all other commodities but corn are left to find their own level!—it is tolerably easy to foresee how the agricultural committee must finish, even without the aid of currency doctors from Birmingham to precipitate its doom.

#### AGRICULTURAL DISTRESS.

(From the Suffolk Chronicle.)

Our Suffolk Tories, after all, like their prototype, the magnanimous Tom Thumb, have—

“ ——— First made Giants;  
Then they slew them.”

All their agitation, all their plots and counterplots, all their bombasting ravings that the present Government were the worst foes to the agricultural Interest, have, like the mountain in labour, produced only a *ridiculus mus!* A committee of enquiry into the causes of Agricultural depression was all they sought for—and sure they were that no Liberal Ministry would grant them so preposterous a demand. But lo! and behold! without even the awful denunciations of the Central Agricultural Society, which was to make them tremble in their seats—without even a single petition being presented—the Government most willingly appeased their ire, and fettered their tongues, by nominating a Committee of Inquiry on the third day after the opening of the Session. This unexpected, and we believe, unwished-for compliance, has literally left the Central, and all the Branch Societies throughout the country nothing to do. No repeal of the taxes which press most heavily on agriculture can be demanded, until the committee have made their report. However urgent may be the necessities of the tenants for relief—the same amount of rents, the same amount of taxes, and the same amount of tithes must be paid—and the cry will be, wait! wait till the cause of your distress can be ascertained.



## TURF INTELLIGENCE.

In our last number we had occasion to notice the suspicious transactions that have lately taken place in the Sister Island, which have appeared in several publications under the title of "Delicate Investigation," not a very appropriate appellation certainly. The moment Mr. Ruthven received the slightest intimation that doubts were entertained of the genuineness of Caroline and Leinster, he ought to have solicited that inquiry from which he shrunk in a manner that could not fail to excite suspicion, even if no ulterior proceedings had been adopted; but to the honour of the Turf Club of Ireland, the matter was not suffered to sleep itself into oblivion: a candid, fair, and impartial investigation has taken place, which exhibits the business in so clear a light, that no further doubt can be entertained upon it. Some of the papers reported the death of Mr. Ruthven, and when the account appeared before our orbs of vision, we concluded the "Delicate Investigation" had *broken his heart!* The report was untrue; for we find that this gentleman, whose name is tagged with M. P., has since appeared amongst an assemblage of his constituents, and, on being accused of shrinking from inquiry, complained of ill-treatment, and begged his political friends would suspend their judgment till he had established his spotless integrity, and received ample justice from a jury of his country! Bah! What jury could be so eligible as the honourable and independent Turf Club of Ireland, before whom Mr. Ruthven refused to plead? It is painfully suspicious to hear professed turfites prating about appeals to a jury of their country on turf affairs. Mr. Ruthven shirked the question when it was brought before the most competent tribunal possible; but we will wait, nevertheless, to observe the manner in which this gentleman may attempt to redeem his pledge, before we proceed to make those observations upon the case, and the parties concerned, which it imperiously demands, and which it shall not fail to receive at our hands: we are public centinels, and will not fail in our duty.

*Steeple Racing* has become very prevalent, and indeed very general, and we regard it as an interesting addition to the already established ramifications of the turf. Cocktail racing originated, no doubt, in the best possible feeling; but, inasmuch as it opened a field for gross and disgusting fraud, it soon became evident that more than ordinary suspicion must attend all its movements. After the affairs of Tom Paine, of Mercury, of Tawpy, Miracle, Sawney, Agnes, Gossoon, Fitzjames, &c., &c., and the more recent business of Swing, Napoleon-le-Grand, &c., &c., who could avoid regarding cocktail racing

with unqualified disgust? If it be not desirable to prevent it altogether, let it be put on a very different footing: for instance, let welter weights be placed alike on all the candidates for this species of secondary fame, and the race or stakes open to any and all competitors.

To *Hurdle Racing*, the same illimitable scope for swindling does not present itself before the eyes of the base-minded and the studious rogue; the best horse, if judiciously ridden, will not fail to win, if all be on the square, and there can be but little temptation for fraudulent dealing. Therefore, if a hurdle race or two be deemed requisite as a sort of finish to the meeting or the season, in the name of all that's liberal, let not the gallant spirits who are emulous to exhibit their feats of equestrianism on the velvet turf of the course, be denied this inoffensive, if not praise-worthy, amusement.

We are glad to see steeple racing encouraged; we are glad to see it cherished and patronized by men of the first rank and station in society; and we rejoice to see the conditions of the stakes not narrowed up by local prejudice, but made as comprehensive as possible, and the whole system rendered so far unexceptionable.

But, to show the imperturbable ignorance of those spuriously-illegitimate disciples of the press, who profess to convey intelligence to the public on turf affairs and field sports: these cunning literary mountebanks, have denominated the amusement under consideration, "*Steeple Chases!*" Can any thing be more ridiculous? To the Normans we are indebted for our language of the chase, the original of which is still to be found, if not "in very choice Italian," in the vernacular idiom of the period, and distinguished at the present day by the appellation of Norman-French; and if recourse be had to the musty mouldering records of ages passed away, it will be found that the word chase, implies the pursuit of some animal; whereas, in the diversion of which we are speaking, a number of horses are matched against each other to cross a certain extent of country, and he who reaches the goal first is deemed the winner; consequently, it is a race across hedge and ditch, instead of a race upon the course. Prior to this period, we were indebted to the mock "London Sporting Reporter," the Newmarket literary charlatan, for a number of absurdities and gross misapplications; and we sincerely believe that his title to the authorship of steeple *chasing* is omnipotently indisputable.

In regard to the word *steeple*, it may be observed, that although it has become a misnomer, its application was originally as correct as possible. When steeple races were

first introduced, the steeple of some distant church, (which might be distinctly seen) formed the goal; thus it was agreed to start from a given spot, and reach the steeple agreed upon. However, our cross-country racers have abandoned the benefit of clergy, and have substituted flags for those venerable *muralittis* with which the country is everywhere embellished.

It seldom happens that a professed jockey is a superior workman over a country, and, therefore, this class of diminutive mortals are not exactly calculated for that kind of equestrianism which is necessarily called into operation in steeple racing; yet, we are of opinion, we could select a few from amongst the numerous body of these truly *elite*, who would venture at such an undertaking, if well paid for the trouble: Tom Nicholson, if he be not equal to Chiffney, to Rushing Robinson, Sam Darling, or Day, is, at least, a fearless horseman; and we would not hesitate to back him against any of those we have enumerated, for a start, or, indeed, for the use of the spur. Those who cannot follow hounds are not calculated for steeple racing; we never saw Nicholson in the hunting field, but we have repeatedly observed jockies attend the fixtures, watch the draw, see the fox found, and return home. We have seen a few ride well to hounds, particularly Simeon Templeman. But steeple racing was not intended for the employment of the Newmarket dandy jocks, such as Pavis and Co., or the accomplished horsemen of Yorkshire, such as Darling, and his fraternity; on the contrary, it was meant for the emulous spirits of the chace, whose noble daring is equally conspicuous after hounds, or in the arduous struggle of the steeple race.

The knowing ones in the good old city of Chester are adepts at handicapping; but, fearful lest the Queen of Trumps might spoil their sport at the ensuing meeting, they allotted her a weight (8 st. 12lb.) which her owner was not likely to accept, and accordingly Mr. Mostyn has declined to risk the *unscrewing* of his splendid filly—over an excellent course certainly, but which moist weather or rain renders very heavy, particularly that part of it which is formed on the margin of the river Dee.

Red Rover, up to the early part of last month, the favourite for the Chester cup, receded considerably on the betting list, in consequence of a report of his having become "*dead amiss*;" however, when we consider the quarter whence this suspicious report was bruited, (the Manchester Sporting Reporter, who, like his Brother of the Metropolis, is no conjuror in turf affairs, though skilful enough, for ought we know to the contrary, in the art of *legerdemain*,) we are scarcely inclined to alter our opinion on the subject. Jupiter was therefore placed at the top of the list, for what reason we at a loss to discover; his performances could not have entitled him to such an enviable distinction;

while we are not aware of a superior horse that ever belonged to the same family—the weight placed upon him (8st 2lb) may, perhaps, be considered favourable. Red Rover has, however, reascended, as will be seen in the list.

In our next publication we shall be enabled to make a few definite observations respecting the Liverpool Trade Cup, as the acceptances will be declared ere these remarks meet the eyes of our readers, (March 1) when, of course, business will assume a tangible shape. It is true, betting lists have been hawked about, upon which, of course, little dependence could be placed, when the acceptances were unknown.

In the Liverpool Craven Meeting one pound less has been allotted to the Queen of Trumps, (8st. 11lb.) than the weight which was offered to her by the Chester Cup; yet, we are disposed to think she will not accept on this occasion, but that Mr. Mostyn will reserve her energies for the July Meeting at the same place, because the prize (the Trade Cup) will be much more valuable, and the Cambrian Queen will be considerably advanced in the fifth year of her age. On this occasion, she will have to meet the crack horse of the day, Touchstone, should he accept the weight, 9st. 7lb., enough in all conscience for the straight run in of half a mile. General Chasse appears in the list, (as he does also in that for the Craven Meeting, with the same weight,) with 9st. 4lb. placed against him. Can Touchstone give General Chasse 3lb over Liverpool course? We think not. The General acquired unfading laurels upon this course; he has run over it many times; knows it well, and has always appeared to advantage upon it. Queen of Trumps, Touchstone, and General Chasse, are no ordinary trio: "When Greek meets Greek, then comes the tug of war." Yet, it must not be forgotten, that in a handicap, the object is to bring the nags as nearly together as possible, to reduce a superior animal to the level of a jib or a jade; and, therefore, in handicap racing, an inferior horse is likely enough to bear away the prize. By way of illustration, it may be remarked that Red Rover appears in the list now under consideration very favourably weighted, 8st. 10lb, and is five years old. Mundig, as a matter of course, appears in the brilliant array, with 8st. 7lb. placed opposite his name, which is 7lb. less than the weight awarded to Queen of Trumps, according to the acknowledged estimation of such matters, that is, allowing 3lb for the latter, as being of the feminine gender,—and Mundig a winner of the Derby! a striking acknowledgment of the truth of our prediction, that the powers of this horse were reduced almost to nothingness by his distressing achievement on Epsom Downs. It remains to be seen (and it will soon be ascertained) whether Mundig will continue on the turf.





A DURHAM OX,  
THE PROPERTY OF EARL SPENCER,  
Exhibited at the Smithfield Show, 1835.

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# THE FARMER'S MAGAZINE.

APRIL, 1836.

No. 4.]

[VOL. IV.

## THE PLATE.

The DURHAM OX, the subject of the Plate, was the property of EARL SPENCER, and was exhibited at the Smithfield Show in December last,—was four years and ten months old,—fed on hay, mangel-wurzel, Swedish turnips, and oil-cake; and obtained a premium of Twenty Sovereigns as “the best Ox of any breed.” A Silver Medal was also awarded to his Lordship as the Breeder.

## ORIGINAL LETTERS.

No. XVIII.

TO THE EDITOR OF “THE FARMER'S  
MAGAZINE.”

“The operations of policy far surpass the labours of Hercules, preventing many evils which valour and might cannot even redress. Unhappy are the people who are governed by valour not directed by prudence, and not mitigated by the gentle arts.”—FENELON.

SIR,—The formation of agricultural associations throughout the country appears to me to be a circumstance that must be viewed with pleasure by every person connected with rural pursuits, and although it may be said with some truth that every association lately formed appears to have a separate object of its own to forward, and, consequently, that there is little unanimity of pursuit or purpose, even among persons most connected with the landed interest; still the very communication and intercourse, necessarily attendant on such a state of things, cannot fail, I think, of producing some desirable effect.

The Central Association now established in London must be considered entirely political. This is, I apprehend, the sole purpose of that society, and I confess I am one of those who think that some good may result in consequence of the attention which must be bestowed by the Government to all representations proceeding from so influential a source; and, accordingly, I entirely dissent to your observations on the subject, which I found in your Magazine for January as preliminary remarks to your Review of the Corn Trade for that month. But it is not my present purpose to enter at any length on this subject, as I wish now to speak of that department of these societies which has for its object the rewarding of meritorious labourers,—but I must say, that so far from condemning any step as yet taken by the Central Association, that I coincide completely with the principles its sup-

porters have laid down for the regulation of their future proceedings. I will now speak of the associations having a local tendency only. I feel, it is true, a strong inclination to dwell on the subject of the Central Association, or, in other words, to have a batch of politics; but this inclination I must resist for the far more grateful task of endeavouring to interest your readers on the subject of Premiums to Labourers, and on some other matters connected with the bettering the condition of the working classes. It may not be unacceptable to some of your readers, who happen to be engaged in forming societies of this nature, to give at length the rules and regulations of two associations which have just been formed in this part of the world for the express purpose of rewarding skilful and well-conducted labourers. One of these associations is at Chichester, of which the Duke of Richmond is the President, and the other at Arundel, of which the Earl of Surrey is President. When I say the above two noblemen are the Presidents of these Societies, I wish to be understood, that they do not hold this office *nominally* and *ostentatiously*, but *practically* and *usefully*, by attending the meetings of their committees, and taking generally an active part in the proceedings, thus forwarding by the influence of their *presence* and *example* an object always *desirable* in its nature, but especially *desirable* at the present moment, when the operation of the Poor Law Amendment Bill has certainly a temporary tendency to restrict the means of the labouring classes. Thus, then—for a time at least—is another difficulty added to the circumstances of the poor—and thus is a new necessity created for an additional stimulus to moral conduct and habits. Now, it appears to me, that this object will be most effectually obtained by publicly acknowledging and substantially rewarding the industrious—the honest—the sober—and the skilful. The natural bias of the human mind tends most decidedly to the possessing of the good opi-

nion of one's fellow mortals. This is the distinction at which we all aim. This is the distinction which every superior mind ought to hold out to its inferior, and this, in truth, is a principle of action which has been completely neglected—I may say has been annihilated—by the late system of Poor Laws in England.

It has been said that these societies will work no good end, because it is impossible to instil a laudable ambition into a degraded mind. This may be quite true. But I apprehend no one will assert that a degraded mind cannot be reclaimed, or that the acknowledgment and distinction of virtue will not at all times discourage vice. Surely the thirst for distinction to be obtained by laudable pursuits and virtuous conduct has a much more decided effect on every civilized society than any fear which arises from the punishment of crime can produce. Burns, the Scotch poet, in his "Advice to a Young Friend," truly says

"The fear o' Hell's a baneman's whip—  
To hold the wretch in order."

and again he says

"Ill not say men are villains all—  
The real hardened wicked,  
Who have no check but *human law*,  
Are to a few restricted."

and I will be bold to say, with the exception of those last alluded to by the poet (the *no-check* but *human-law-men*;) that the moral conduct of the lower orders will be improved by the reward system, when the principle becomes generally adopted. A few days ago, in a conversation I was holding with a labouring man as to the present difficulties of persons in his situation in life, I made use of an expression—as advice to him—which appeared afterwards to me to be of very questionable nature, on account of the great probability of its being misapplied. I said to the man you must learn to abridge your wants as much as possible. That we certainly must was the reply. Now, if this man understood me to mean that he ought to restrict any desire which he might entertain to support himself and his family on *substantial and wholesome food*, or to shelter himself and them in a *warm and comfortable habitation*, and to be clothed in *decent and sufficient apparel*, and these necessities to be obtained by his *honest and unremitting labour*, he certainly attributed to my words a meaning that I was far from intending to convey. The notion of bringing the poor to a *coarser food* I repudiate with disgust. Such a sentiment is the immediate offspring of cruelty and folly. To degrade the body is truly to debase the mind, and there is no degradation that I am aware of which can exceed that which has a tendency to induce human beings to be satisfied with a diet at which a brute would turn in disgust,—or to be contented with raiment less capable of bestowing comfort than the natural clothing of quadrupeds afford to them,—or to quietly accept a shed as a domicile neither impervious to the wet nor a shelter from the wind. If any doubt the demoralizing effect of such a state of things, I will instance the poor of Ireland as a case in point. Let me recommend a perusal of the Report of the Poor Law Commissioners for that unfortunate country, and then let me ask if the return to a *coarser food* be any longer thought to be desirable? Oh, no! it is not the laudable desire of the hard-working, the frugal, and the sober to partake of *substantial fare*, to be covered with *decent raiment*, and to be housed by a *clean and comfortable dwelling*, which is in any degree

the cause of our present distress; indeed, the fact is exactly the reverse; but this distress may with some justice be attributed to the luxurious indulgence of the thoughtless and the depraved, to the pompous vanities of the upstart drones of society, and to the unprincipled extravagancies of a vulgar profligates.

The glory of these mighty kingdoms must be supported by the multitude, and not by any small band or knot of persons. The multitude consists of the labouring part of the community, and thus it is the *real strength* of the nation which it has been proposed to reduce to a *coarser food*. As if *men coarsely provided for ever were, or ever will be good citizens!* No, before you can make the labouring part of the community—who, with God's blessing on industry, produce the substantial necessities of this life—be satisfied to exist on *refuse and garbage*, you must at least occasion in their minds the same happy compromise that the Fox in the Fable made with his own inclinations, viz., that the grapes are sour. And to accomplish this end there will be found some little difficulty. Labour gives a rest to the senses, and, consequently, it will be a hard task to flatter the olfactories of a working man with a grub in the gutter to the prejudice of the fumes from the porridge-pot, or the savoury effluvia from the oven.—*Coarser food*, indeed! Odious expression! *Let us, like Sterne's Recording Angel, drop a tear of pity upon the word, and blot it out for ever.*

The following is a list of the premiums, and the regulations and conditions of the West Sussex Association for the encouragement of industrious and meritorious agricultural labourers residing in the Western Division of the County of Sussex, or within twenty miles of the City of Chichester:—

CLASS A.—For labourers who have brought up the largest families respectively, with the smallest amount of parochial relief.—First, *5l*; second, *4l*; third, *3l*; fourth, *2l*; fifth, *1l*.

CLASS B.—For single men who have lived the longest in one place with the best characters.—First, *5l*; second, *4l*; third, *3l*; fourth, *2l*; fifth, *1l*.

CLASS C.—For widows who have brought up the largest families respectively, with the smallest amount of parochial relief.—First, *5l*; second, *3l*; third, *2l*.

CLASS D.—For female servants who have lived the longest in one place, with good characters.—First, *4l*; second, *3l*; third, *2l*; fourth, *1l*.

CLASS E.—For labourers who have placed out at respectable service their daughters at an early age, and who have remained in that service, with good characters.—First, *4l*; second, *3l*; third, *2l*; fourth, *1l*.

CLASS F.—For shepherds of flock-masters who have the care of not less than ten score of ewes, who have reared the greatest number of lambs with the least loss, regard being had to the circumstances both as to the farm and flock.—First, *5l*; second, *3l*; third, *2l*; fourth, *1l*.

CLASS G.—For the best ploughmen.—First, *4l*; second, *3l*; third, *2l*.

CLASS H.—For the best sheep-shearers.—First, *3l*; second, *2l*; third, *1l*.

CLASS I.—For single men under twenty years of age, who have lived the longest in one place, with good characters.—First, *3l*; second, *2l*; third, *1l*.

CLASS J.—For female servants under 20 years of age, who have lived the longest in one place, with good characters.—First, *3l*; second, *2l*; third, *1l*.

CLASS K.—For boys under sixteen years of age who plough the best.—First, 1*l* 10*s*; second, 1*l*.

GENERAL CONDITIONS AND REGULATIONS.

The certificates to be referred to a sub-committee of seven, who are to decide upon the merits of the respective candidates—three to be a quorum.

The Committee to appoint the Judges of the Sheep-Shearing, which will take place in June, and of the Ploughing Matches which will be held on the 7th of September.

The Committee to be empowered to defray the expenses of every candidate they may think deserving, provided always that the total amount shall not exceed 10*l*.

The Sub-Committee to be empowered to call for additional certificates if they think fit.

That every candidate shall transmit to the Secretary—at least a fortnight previous to the day of decision—a certificate of general good character, sobriety, and regularity of attendance at Divine Worship, signed by the employer of such labourer, the Guardian, Churchwarden, or Overseer of the parish wherein he is resident,—and the Officiating Clergyman,—or by four respectable householders of the said parish.

That with respect to Classes A. and C. a further certificate be produced at the same time of the length of service under one employer, the number of his or her children, and the amount of parochial relief that has been received by such labourer or widow.

That with respect to Classes B. and D. a certificate must be produced of the length of service under one employer, as well as of general good character, signed by the employer.

That with respect to Class E. a certificate must be produced of the names of all the daughters, the ages at which they were respectively placed out at service, and their characters, signed by the employers of such girls, and by the churchwardens and overseers.

That a General Meeting of the Society be held on the 7th of September at Chichester, on which day the prizes will be awarded, and a certificate signed by the Chairman will be given to each successful candidate.

I will now take the rules and premiums of the Arundel and Bramber Association, because, as these rules and premiums differ very essentially from those of Chichester, it will enable such of your subscribers who happen to be engaged in getting up societies of this description, to select from both those premiums and regulations which may appear to them to be most desirable.

CLASS A.—AGRICULTURAL SERVANTS.—To the single man who has lived the longest time in the same service either in or out of the house, 3*l*; second, 2*l*.

To the single woman who has lived the longest time in one service 3*l*; second, 2*l*.

To the lad under eighteen years of age who has lived the longest time in one service—as *hired servant* living in doors.—First, 2*l*; second, 1*l*.

To the girl under twenty years of age who has lived the longest time in one service, and whose character is without stain.—First, 2*l*; second, 1*l*.

CLASS B.—The same premiums to tradesmen's servants under like circumstances.

CLASS C.—SHEPHERDS, CARTERS, & LABOURERS.—To the shepherd on the Hills above twenty-two years of age who has lived five years in the same occupation, with the same master, and who can

produce the most satisfactory certificates of industry and skill.—First, 5*l*; second, 3*l*; third, 2*l*.

To the shepherd on the Lowlands above twenty-two years of age, who has lived five years in the same occupation with the same master, and who can produce the most satisfactory certificates of industry and skill.—First, 5*l*; second, 3*l*; third, 2*l*.

To the shepherd on the Hills under twenty-two years of age, who has lived five years with the same master, and who can produce the most satisfactory certificates of industry and skill.—First, 2*l*; second, 1*l*; third, 10*s*.

To the shepherd on the Lowlands under twenty-two years of age, who has lived five years with the same master, and who can produce the most satisfactory certificates of industry and skill.—First, 2*l*; second, 1*l*; third, 10*s*.

\* \* \* No person will be considered a shepherd entitled to compete for the premiums who has not the care of ten score ewes.

To the carter who has lived the longest time, and is still living with the same master or mistress, and who can produce the most satisfactory testimonials of habitual sobriety.—First, 3*l*; second, 2*l*; third, 1*l*.

To the labourer who has worked the longest time for the same master or mistress, or on the same farm.—First, 3*l*; second, 2*l*; third, 1*l*.

CLASS D.—GARDEN CULTIVATORS.—To the five cottagers whose cottages and gardens consisting of not more than a quarter of an acre shall be kept and cultivated in the neatest manner, and the general appearance of whose crop, making due allowance for the natural quality of the soil, shall be most satisfactory to the judges appointed to view them 1*l* each.

CLASS E.—PLOWING TO TAKE PLACE 7TH OCTOBER, 1836.—To the man who ploughs 5½ acres of clover-ley in the best manner, with two horses, without a driver, and who has lived three years or upwards in his place.—First, 3*l*; second, 2*l*; third, 1*l*. For the second premium the man must have lived two years in his place, and for the third one year.

To the ploughboy or lad who ploughs ½ an acre best, under twenty years of age.—First, 2*l*; second, 1*l*; third, 10*s*.

CLASS F.—HEDGING.—To the man who makes one rod and a half of the best hedge and ditch against all sorts of cattle.—First, 2*l*; second, 1*l*.

CLASS G.—SHEEP-SHEARING.—To the man who shall shear ten hogget sheep in the best manner and in the shortest time.—First, 3*l*; second, 2*l*; third, 1*l*.

To each unsuccessful adult competitor will be given 3*s*; and to each lad or boy 1*s* 6*d* for his loss of time.

Each candidate must bring with him a certificate (as under) of good conduct, to be signed by the Minister of the parish where he resides, and by at least one of the parish officers.

We the undersigned do hereby certify that A.B. labourer of this parish is, to the best of our knowledge and belief—first, a regular attendant at Divine Worship; secondly, not one of those who waste their money and time while they corrupt their morals in public-houses or beer-shops; and, lastly, that his (or her) conduct is good, and such as to render him (or her) a fit subject for an honourable reward and distinction.

Minister of the Parish,

Overseer, Churchwarden, or Guardian.

Claims for prizes, together with certificates of

any facts required to be proved, must be delivered at the Committee-room in Arundel, between the hours of ten and eleven o'clock in the forenoon of the first of August, or to some member of the Committee not less than two days previously.

The right is, however, reserved to the Committee, if it shall think fit, of enlarging the time for receiving claims and certificates.

Printed forms for claims and certificates may be had of the several members of the Committee at any time after the first of March.

Seven days notice will be given to the successful competitors for prizes previously to the annual meeting.

Competitors for prizes who may feel themselves aggrieved by the decision of the umpires may appeal to the committee at the annual meeting previously to the distribution.

The determination of the Committee in all cases to be final.

It has often been said that comparisons are odious, and I fully admit the truth of this observation; but, on the present occasion, I must risk the odium of comparing a few of the leading principles of the above associations, with the hope that these remarks may be of some use to such of your readers as may be embarked in a like undertaking. It will be observed, that by the rules of the Arundel Society, it is imperative for every candidate to produce a *certificate from the minister of the parish*, (a copy of which certificate is given above) before he can be admitted as a competitor for any prize.

The Chichester Society requires a like certificate from the clergyman, or from four respectable householders.

The Chichester Society does not require a certain length of service with one master in the case of shepherds and ploughmen, &c., &c.

The Arundel Society makes length of service a qualification in all cases where it is practicable to do so.

The Chichester Society bestows its rewards in instances of large families brought up with the least parochial relief.

The Arundel Society does not consider it wise to offer a premium on increase of population, and accordingly bestows its prizes without any reference to large or small families.

These are the main features of difference in these too laudable institutions, and I mention them for the consideration of others engaged in a like pursuit, without any observation of my own on the comparative merit of either.—I am, Sir, your obedient and very humble servant,

Sussex, March 4, 1836. AGRICULTOR.

No. XIX.

## A PLAN FOR THE EXTINCTION OF TITHES.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—In order that tithes may cease for ever, and that it may be effected without being detrimental to the interests of any, it is proposed (if it be admitted that a claim to tithes can be made out), that a valuation of all titheable property shall be taken, and that three shillings, two shillings and sixpence, or two shillings in the pound on the rental, as the legislature shall think proper, as an equivalent for tithes, shall be specified; that a calculation of the value thereof, according to the interests of the present incumbents, shall be made, and that the Government shall buy up

these tithes, and pay the full amount thereof over to their proper owners: and that in order to defray the expense incurred, a tax shall be levied on all titheable property, similar to a land-tax, and to be redeemable in like manner; and at the demise of the present incumbents, the glebe shall go with the proceeds of the parish into the general fund.

As regards lay impropricators, there appears, on the first view of the case, to be a difficulty; but it must be allowed by all, that these tithes have been misappropriated, seeing they are not applied to the support of ministers of the gospel, nor to the promotion of religion in any shape or form: therefore the first transfer of them to secular purposes, was a direct prostitution of them from their original design, and consequently an alienation of the revenues of the church: this being the case, all those who have been dealing in tithes from the commencement of this traffic, have been manifestly in palpable error and culpable for their neglect in not examining the nature of the property they were about to purchase, especially those who have happened to purchase them within the last twenty-five years, when the voice of discontent and alarm has been sounding from one end of the nation to the other. I therefore contend that the first possessors of them have been paid tenfold for their outlay, and those who have purchased them more recently, have done it with their eyes open, and consequently have none to blame but themselves: as it is, I would leave it to the wisdom of the legislature to determine, and give them their just due.

It must be evident to every discerning person, from what transpired at the Exeter meeting for a commutation of tithes, and also from the disposition which a large majority of the people have manifested at different other places where meetings have been held for that purpose, that the day for a commutation for tithes is gone by: I would not say with the learned Lord Ebrington, that "concession now, after so long a delay, would lose half its weight and half its value," for I am strongly of opinion that any concession, short of abolition, would lose all its weight and all its value.

The bishops may talk about equalling the revenues of the church, and of giving to each of her ministers a proper maintenance—they may propose to do away with pluralities, and non-residences, &c., but are these the essentials of the prayer of the people? Will these reforms in church discipline (however laudable and how much soever it might have tended to her honour and to the advancement of religion, if it had been carried into effect some twenty years ago) redress the wrongs and ease the burdens of the people? No, nothing will satisfy the people now, in this enlightened age, but a total extinction of tithes.

It will be in vain to tamper with the disease, seeing it is become so direful in its aspect; unless a proper application is had recourse to, and an efficient remedy prescribed, it will soon show itself in a more malignant form, when all future prescriptions will prove abortive.

As enough has been experienced, and said, and written, on the evils of the present system, I need not enter into detail of the facts of the case, but shall conclude by earnestly hoping that such measures (by the wisdom of the legislature, under the guidance and direction of the Great Head of the Church) may be adopted, as shall secure the general weal, the promotion of religion, the safety, honour, and welfare, of our Sovereign and his dominions.

A FARMER AND SUBSCRIBER.

Feb. 25, 1836.



No. XX.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

Glasgow, March 13.

Sir,—In reply to the numerous enquiries from the South, concerning the stock of grain and prospects of the trade in this quarter, I beg to hand you a few remarks, which you may perhaps find room for in your extensively read pages.

Since the first of January, with an occasional few days' dulness, we have had a progressive advance of about 6s to 7s per quarter on wheat, a very slight improvement on barley, while oats have been very steady.

During the whole period of the advance, our bakers have been steadily increasing their stock, and notwithstanding the enormous consumption which is going on, I have no hesitation in saying, that the quantity of wheat held by them, is greater than at any former period.

The stock of wheat in the hands of merchants and speculators is also very great. On the 31st December, 1835, the stock in granary was 66,000 qrs, and since that time at least 15,000 qrs must have been added to it, principally fine English red wheats, making a stock of upwards of 80,000 qrs! a quantity quite beyond precedent.

Our stock of spring corn is by no means heavy; on the 31st December we had only 20,000 qrs of oats in store, and since that time about 20,000 qrs may have been added, making together but a moderate stock for our extended consumption.

Of barley it may be said we have no stock, so trifling is the quantity in store.

During the last three years there has been a considerable quantity of Irish flour brought to this market, which has hitherto been sold from the ship; at present, however, a stop having almost been put to its use by the extravagantly high prices asked for it, an accumulation to a considerable extent has taken place.

Last year's crop has turned out better, in this quarter, than was expected, and there is still a greater portion than is usual at this day of the year, in the barn-yards.

We have a dreadfully unwieldy stock altogether, and unless we have a very backward spring, our present prices will be maintained with great difficulty. Hitherto the weather has been cold and boisterous, but there has been no sharp frosts, and though the young wheat is backward, our farmers are not at all alarmed, as it is still healthy at the root, and the weather yesterday and to-day is assuming a more settled appearance.

I am, Sir, most respectfully, W. R.

No. XXI.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

Aleuton Hall, March 10, 1836.

Sir,—As the imposition of an additional duty on foreign tallow, and the repeal of the soap duty, are about to be brought before the House of Commons, I think that the loss the grazier sustains when the price of fat is below that of meat, which it formerly equalled, cannot be too generally known; the following calculations, which I will thank you to insert in the Farmer's Magazine, are formed upon data acknowledged to be correct by practical men, shew the effect the variation in price of that article has upon

different descriptions of land. The value of hides has also considerably decreased from the numbers which are annually imported. The increase in price both of meat and tallow, at the present moment, can only be attributed to the shortness of the supply, which the total failure of turnips in those counties which usually fill the London markets at this season, has occasioned. Surely the time has arrived, when the profits of the English farmer are annihilated—when the land is overwhelmed with the most oppressive parochial assessments, of which the fundholder, the merchant and manufacturer, do not bear their fair fair proportion; as appears from the Parliamentary Returns, which state that out of £8,606,501 9s, lands and dwelling-houses contributed so large a part as £8,070,147 18s; that the landlord and the tenant have a right to expect not only a more equitable distribution of these burdens, but also that those fiscal regulations which admit the produce of foreign nations—such as timber, bark, tallow, hides, rape, &c. &c.—at such low duties, as to deprive the home grower of all profit, should be revised.

I am your obedient servant,

H. W. WILSON.

Good Grazing Land, worth about 40s per acre, will feed 2 Beasts, of about 64 st, 14 lb to the stone, on 3 acres; the fat in each may be calculated at one-eighth or 8 st, which at 3d per lb less than that of meat, which it has often averaged, amounts to 28s each.

Two on 3 acres, or 16 st, fat at 3d per lb,	s. d.
56s; one-third No. of acres .....	18 8
One and a half Sheep, per acre—taking the tallow cake, the fat on the kidney, and parings of neck, chine and loins, at 20 lbs each, at 3d,—5s; or per acre .....	7 6

Loss, per acre .....	26 2
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Or, allowing that the Grazier ought to make three rents—one for himself, one for expenses, and one for the landlord—from 20 to 25 per cent. on the rent on land of less value, say about 32s per acre.

1 Beast of 50 st. to 2 acres—the fat 6 st, at 3d per lb—21s; the half .....	s. d.
10 6	
1 Sheep, per acre, as above .....	5 0

Loss, per acre .....	15 6
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Price, 2½d lower.

2 Beasts, as in the first instance, 16 st fat, at 2½d—46s 8d; one-third .....	s. d.
15 6	
1½ Sheep .....	6 3

Loss, per acre .....	21 9½
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On average store and feeding land—meat at 5d, fat 3d.

Half a Beast of 8 score and 10 lb per qr, 7 st fat, 14 lb to the st, at 2d less .....	s. d.
8 2	
Half a Sheep, taking lowest possible average of 12 st fat .....	1 0

9 2
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Or, one-third less, 13s 3d per acre direct loss, besides that which the grazier loses indirectly by selling his stock when not thoroughly fat, which he sometimes is induced to do under present prices, large and very fat animals not being so valuable per lb as smaller ones.

Beast and Sheep fed on artificial food will average more fat than is here calculated.

No. XXII.

ASSOCIATION OF THE TENANT  
AGRICULTURISTS.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

Sir,—I was born and bred a farmer. My hands have all my life been more accustomed to handle the plough than the pen, and therefore I trust you will correct any mistakes I may commit in writing. Fortunately for me I farmed in times when produce was in great demand, and consequently fetched high prices. I realized a small independence, and retired from business. In my retirement I have amused myself by perusing the various agricultural publications which have appeared, and in watching the changes which have taken place in the agricultural world. I have seen with regret the declining state of the farming class, and I have contemplated with as much eagerness as those who were actually in business, any prospect of amendment. I have read with infinite satisfaction the proceedings of the Highland Society of Scotland; I have seen the benefits which have accrued from many local establishments in England, and, consequently, when I first saw the announcement of the intended establishment of a Central Agricultural Society in London I anticipated the most beneficial results from it. I have narrowly watched the proceedings of this Society; I have carefully perused all the documents put forth by it, and I regret most sincerely to be compelled to state that never was a favourable opportunity of establishing a society which might have contributed largely to the improvement of agriculture, and, consequently, to the bettering the condition of the practical farmer, been so lamentably thrown away. The early declarations of the society convinced me that the acting parties were perfectly unacquainted with the means which were necessary to be adopted for improving the condition of the working farmer. But the last declaration put forth under the authority of the Society has perfectly astounded me. Looking to the importance which this society attached to the *landed interest*, and the vast exertion, which was considered necessary to rescue it from the grasp of the *monied interest*, I conceived that attention to the agricultural interest alone would have been sufficient occupation for the society. I now, however, perceive that the society undertakes the advocacy not only of the agricultural interest but also of the manufacturing, commercial, and maritime or shipping interests. Now, Sir, I consider these other classes as much entitled to protection as the agricultural class; but when I look at the extent of the agricultural class,—when I contemplate their difficulties, and when I reflect upon the incalculable advantages which, as it seems to me, might result from a society which was properly organized for practical purposes,—I do feel persuaded that the individuals who can so soon lose sight of the main object for which the society was established, are neither capable of, nor calculated to benefit the farmer. I am one of those who think that the new Poor Law Act is calculated to do much good both to the farmer and the labourer. I live in a district where its practical benefit has already been experienced. It is, therefore, with much regret I perceive the society endeavouring to promote a new cause of dissatisfaction amongst the labourers, by setting forth the injustice of their not being *represented* as a distinct class. I am perfectly astonished that the gentlemen, whose names have been announced as members of the Central Society, should suffer opinions to be promulgated under their authority, not only calculated to excite dissatisfaction but also to

promote those principles of representation which moderate men of all parties deprecate.

If the agricultural labourers are to be represented as a class, it follows as a matter of justice that the operatives of every class must also have their representatives. What then does this proposition amount to less than *universal suffrage*? So then, the Central Agricultural Society, certain members of which have taken so much pains to prove that it is not a political society, is actually advocating universal suffrage, and that under the authority of Earl Stanhope, Lord Darlington, Earl Winchilsea, Lord Wynford, and other noblemen of the like conservative principles. I am fully persuaded that the society will not serve the tenant, who is the person really suffering. I should, therefore, propose the formation of a society of *tenant farmers* and farmers occupying their own lands, for the benefit and protection of the *tenantry*, leaving the landlords, who are already sufficiently powerful, to take care of their own interests. Such a society might be established at a very trifling expense. Its objects should be strictly practical. If, Mr. Editor, any of your numerous readers may feel disposed to promote such a society, in which *tenants* might discuss freely and without restraint their situation, and their own interests, I am perfectly at leisure, and will most readily take upon myself the arrangement of the details, until the society shall have been established; and I think the result will be productive of more practical benefit to the working farmer than the theoretical notions of the landlords, bankers, and others, constituting the Central Agricultural Society.

I am, Sir, your obedient servant,

Feb. 25.

AN OLD FARMER.

P.S. I give you my name and address, and perhaps you will permit any letters upon the subject to be addressed to me at my office, and forward them to me by post. [We shall be happy to receive any communications, and will forward them without delay.—Edit.]

## SALE OF NORTH DEVON CATTLE.

On Wednesday, March 16, the sale by auction, by Mr. J. Mogridge, of the Farming Stock of Mr. Francis Quartly, of Molland, took place; and, as a breed of pure North Devon Cattle it had acquired such celebrity that it was attended not only by a great number of the Gentlemen Amateur Breeders of Devon and the adjoining districts, but it also attracted several from Norfolk and many other counties. Mr. Quartly's breed of cattle have for many years been considered as pre-eminent; of the correctness of which there can no longer remain the least doubt, from the great and unparalleled prices for which they have now been sold.—The 21-months-old Bull, which obtained the Sillifant prize at Exeter in November last, was sold for 97 guineas; another Bull, 18 months old, fetched 83 guineas; one Cow obtained 53 guineas; ten Cows were sold for 371 guineas and a half; one two-year-old Heifer went for 50 guineas and half; another for 30 guineas, and another for 28 guineas; one yearling Heifer sold for 23 guineas, one for 18½, one for 18, and one for 17½; and one Heifer Calf for 21½ guineas. Curly (the admired Cow) sold for 53 guineas; she was the dam of the highest-priced Bull: the Heifer Calf also sold for 21½ guineas.—The above stock of cattle consisted of 73 head, 15 of which were calves; and, together, they produced the sum of £1621 13s 6d—prices unprecedented in this county.—The whole of the stock, including Horses and Pigs, were sold in less than four hours; which, together, obtained the sum of £1819 15s 6d. Several lots were purchased for His Grace the Duke of Norfolk; as were others for Mr. Coke, of Holkham; many lots were also bought by different gentlemen in Cornwall and Somerset; and many of the very prime blood were purchased and retained on the farm by Mr. John Quartly, who succeeds his uncle.

### THE SHEEP.—SPECIES AND VARIETIES.

The origin of the domestic sheep has been sought for by naturalists in various wild races:—

1. *Ovis musmon*—The Musmon.
2. *Ovis ammon*—The Argali.
3. *Ovis tragelaphus*—The Bearded Sheep of Africa.

The musmon of the Mediterranean islands, is yet found wild in Corsica and Sardinia, in the mountains of European Turkey, in Crete and other islands of the Archipelago. It does not differ greatly in its characters, but it differs widely in its habits, from the domestic races of Europe.

The Argali or wild sheep of Asia, inhabits the mountains of central Asia, and the elevated plains of Siberia northwards to Kamschatka. It has horns of great length; its colour is gray, and it is covered with wool beneath a close hair.

The bearded sheep of Africa is found in Barbary and the mountainous parts of Egypt. A variety introduced into East Friesland, and crossed by the common breed, is said to have produced the large prolific sheep of the Texel.

To these wild races might be added *Ovis montana*, the Rocky-mountain sheep of America, an animal of great size, and inhabiting the mountainous parts of North America. But it is believed that the Rocky-mountain sheep of America is the same as the argali of Asia.

These are the wild animals of the race of sheep that have been yet discovered. Which of them, if any, has given rise to the domestic races, has been matter of dispute. In different countries different kinds of sheep are domesticated, and may have been derived from the wild races in the countries where they are found, and in some cases produced by intermixtures which cannot be traced.

The domestic sheep of Europe is usually termed *Ovis aries*. The female goes with young twenty-one weeks, and generally brings forth her young in spring. She produces one, and often two, but rarely more than two, at a birth. She yields milk in quantity sufficient to nourish her young. Her milk produces little cream; but the quantity of caseous matter which it yields is comparatively large. This, when made into cheese, is wholesome, but strong-tasted.

The sheep appears to attain his most perfect state as to size and form in the temperate zone. He is there covered with wool, whereas in warmer countries he is more covered with hair, as he also partially is in the colder countries, where his size is likewise diminutive. The wool of the sheep falls off and is renewed every year; and the period of its falling off is early in summer.

In its natural state the sheep has horns; but in the domesticated races the horns frequently disappear, and the most valued breeds are entirely destitute of them. The sheep is a very hardy creature with regard to the effects of temperature, its thick coat of wool defending it well from cold and moisture. It has been known to live for a long time under snow. It is a harmless and timid creature, and in its domesticated state is dependent upon man for protection and food. In mountainous countries, however, where it is less domesticated, and must trust greatly to its own resources, it manifests its instinctive powers of self-protection. It scratches up the snow with its feet in search of food; it is conscious of an impending storm, and takes the means to secure itself from its violence; it is wary and vigilant, and numbers have been known to com-

bine for defence against beasts of prey. But though, under these circumstances vigilant, and in cases of necessity bold, all the habits of this creature lead it to submit to the dominion of man, and from the earliest times accordingly it has been the subservient instrument of our race.

Whether the wild race of sheep be all of one species, as some naturalists suppose, or of different species, as others maintain, the domestic races with which we are familiar in this island are believed to be of one species; and what we term breeds are merely varieties produced by different conditions of situation, food, and culture.

These conditions, however, produce a great diversity in the size, characters, and economical uses of the animal. Judging from general aspect only, we might believe that the diminutive creature of the Zetland islands, of the size of a little dog, is a distinct species from the large sheep of the Romney marsh; yet the species are believed to be the same. The sheep, like the other animals necessary for human support, is fitted to adapt himself to the physical circumstances with which he is surrounded. In a country of heaths and scanty herbage, he is small, agile, and hardy. In a country of plains and rich herbage, he becomes of great size, unfitted for active motion, and less capable of providing for his own wants.

In the British islands, attention has long been paid to the culture of the sheep. In many parts it remains almost in its natural state; but in others it has been brought to all the perfection with respect to form, early maturity, and disposition to feed, which appears to consist with the nature of the animal.

Besides the properties of size and form, sheep are distinguished from each other by the nature of their wool. Sometimes it is short and fine, and fitted for the making of cloths; and sometimes it is long, and suited to the making of worsteds and coarser fabrics.

The main divisions of what are termed breeds in this country are into the sheep of the mountains, lower moors, and downs,—and the sheep of the richer plains. The varieties of the former class have sometimes horns, and are sometimes destitute of horns; they have sometimes short wool and sometimes long wool: the true sheep of the plains are all destitute of horns, and have long wool. The following may be enumerated as the principal breeds of this country:—

1. The Zetland sheep.
2. The Dun-wooled sheep.
3. The Black-faced leath sheep.
4. The Moorland sheep of Devonshire.
5. The Cheviot sheep.
6. The Horned varieties of Fine-wooled sheep of Norfolk, Wiltshire, and Dorset.
7. The Ryeland sheep.
8. The Southdown sheep.
9. The Merino sheep.
10. The Devonshire Notts, the Romney-marsh sheep, the Old Lincolnshire, Tees-water, and Old Leicester.
11. The New-Leicester and improved Tees-water sheep.

The Zetland sheep exist in the islands whence they take their name, but, with some change of characters, extend to the Faroe islands and the remoter Hebrides. They are the least of all our races of sheep. They are generally without horns. The wool is adapted to the making of the finest fabrics, and forms a fine fur. Mixed with the wool, however, is a coat of coarse hair, which, when the wool falls off, forms a covering to the animal. The like character is possessed by some other sheep in the

extreme north of Europe; and it is probable that it is from this source that the fine-woolled sheep of the remoter Highlands has been derived. These little creatures are very hardy, and may be suited to the scanty pastures where they are reared, but they are not deserving of more extended cultivation.

The Dun-woolled variety of sheep seems to have been once very generally extended. There is more or less of a dun colour of the wool, sometimes on the face or legs, and sometimes in patches on the body. Remnants of this original race are yet found in Scotland, in Wales, and in the Isle of Man. A similar breed extends to Normandy and other parts of Europe. The wool is soft and fine, and the mutton good; but in other respects the breed does not deserve cultivation.

The black-faced heath sheep are the natural inhabitants of a country of mountains and heaths. Their wool, though shaggy and coarse, is light, weighing from 3 to 4lb the fleece. They are of the smaller class, but they are the hardiest, boldest, and most active of all our sheep; they have horns, and their legs and faces are black; they feed readily when brought to good pastures, and their mutton is in great esteem.

This race of mountain sheep is found on the highlands of Yorkshire, on the mountains of Cumberland and Westmorland, on the mountains in the south of Scotland, in Argyllshire, and all northward through the western and central highlands. The best examples of the breed are usually found in Tweeddale and the adjacent districts.

For an elevated and rugged country, where the chief pasturage is heath, this breed is exceedingly well suited. The objection to it is the little value of the fleece, which is the coarsest of the wools produced in this country. This circumstance has, in many districts, caused a substitution of the Cheviot for the black-faced breed. But although the Cheviot breed is superior to the black-faced in weight and value of the wool, it is not possessed of the same hardy qualities; and the black-faced may, therefore, be cultivated with advantage in situations to which the Cheviot is unsuited.

The black-faced breed, though well defined, loses many of its characters when naturalized in a low, marshy, or less heathy district. Its wool becomes less coarse; the darkness of its colour diminishes; its legs and face become spotted or grey; and its horns sometimes disappear. Hence this breed is in some places so changed in its external characters, as to have lost much of its resemblance to the parent stock.

The moorland sheep of Devonshire, termed the Exmoor and Dartmoor, derive their names from the districts of Devonshire where they are found. They have horns, white legs and faces, and long wool; they are hardy, and supposed to be suited to the wet undrained country which they inhabit: their wool weighs about 4lbs the fleece: they are of the smaller class of sheep, and their form is bad.

The next mountain breed to be mentioned possesses very distinct characters. This is the Cheviot, so termed from being reared on the mountains round Cheviot, whence it has been very widely extended to other elevated districts.

The Cheviot sheep are heavier than the black-faced; they are without horns; the wool is fine, and the weight of the fleece is about 3lbs and upwards. The sheep, like those of other mountain breeds, are light in the fore-quarters. They are hardy, active, and well suited to an elevated country.

The mountains where this race of sheep is indi-

genous, though high, are mostly covered with a green sward, and thus differ from the heathy mountains of other parts. The nature of this range of pasturage may have contributed to give its peculiar characters to this breed, though it is probable that some cross, of which the history is now lost, may have added to the effect. The Cheviot sheep have been greatly improved, but the breeders having directed attention more to the form and size of the animals, than to the quality of the wool, the latter has diminished in fineness, though it has increased in quantity.

The properties to be desired in a mountain breed are, that it shall be hardy, of good form, of sufficient size, and with good wool; and for a combination of these qualities, the mountain breed of the Cheviots has not been equalled in this island.

The horned varieties of fine-woolled sheep, though reared in a comparatively low country, are allied to the sheep of the mountains, lower moors, and downs.

Of this class of breeds the Norfolk prevails in the counties of Norfolk and Suffolk. The sheep of this breed have large spiral horns and short wool. They differ from the black-faced heath sheep and the moorland sheep of Devonshire, in having short wool, and from the Cheviot in having horns. They are tolerably suited to the dry pastures where they are chiefly found, but they are of a bad form, having thin bodies and flat ribs; they are of about the same weight as the Cheviots, and the wool is about 2lbs the fleece; they are of a restless disposition, and are considered to be slow feeders; they are generally giving place to the Southdown, which are in all respects a superior breed.

The Wiltshire sheep are distinguished by large spiral horns, but the legs and faces are white, and they are heavier than the Norfolk. Their wool is fine, weighing about 2½lbs the fleece; and they are the largest of our fine-woolled sheep. The county of Wilts, where they are naturalized, consists in a great part of downs, and this breed was regarded as hardy, and well suited to the nature of the pastures; but it has been gradually giving place to the Southdown.

The sheep of the Dorset breed have small horns, with white legs and faces. Their wool is heavier and less fine than that of the Wiltshire sheep, weighing from 3lbs to 4lbs the fleece and more. They are a hardy race of sheep, being chiefly bred on the open downs of this part of England. They are remarkable for the ewes admitting the rams at an earlier period than any other sheep, and on this account they are valued for producing lambs for winter consumption.

The Ryeland breed is so named from a district in Herefordshire. The sheep are very small, white-faced, and without horns. The wool is very fine, weighing about 2lbs the fleece; the ewes, when fat, weigh from 12lbs to 14lbs, and the wethers from 12lbs to 16lbs the quarter; their flesh is delicate, and they may be said to be suited to the stunted pastures on which they are reared.

This breed has been crossed with the Spanish Merino, and the produce brought into extensive notice under the name of Merino-Ryeland or Anglo-Merino. Great exertions were made to extend this cross; but, though it produced good wool, it has altogether declined in favour. There are other breeds allied to the Ryeland, which, like it, have fine wool, and are bred on soils yielding light herbage.

The Southdown is a breed of fine-woolled sheep, now greatly esteemed, and extensively diffused on the light soils and chalky downs of England. They

are without horns: their legs and faces are grey, and like the sheep of the mountains, they are light in their fore-quarters. Their wool is fine and short, being from 2 to 3 inches in length, and weighing, on an average, about 2½lbs the fleece. Their flesh is of excellent flavour; they are a hardy class of sheep, kindly feeders, and well suited to the species of pasture on which they are chiefly reared; they are about the size of the Cheviot sheep, the wethers, when fat, weighing about 18lbs the quarter.

These sheep have been reared from time immemorial upon the chalky soils of Sussex; they have spread into other districts of light soils and downs, and also into some to which they are not well adapted.

Much care has been bestowed on the cultivation of this breed, and it has accordingly been much improved; but attention having been mainly directed to the form and fattening properties of the animals, the quality of the wool has declined, though its quantity has increased.

In the class of fine-wooled sheep is the Merino or Spanish breed, now partially naturalized. They are originally natives of the northern provinces of Spain, and were introduced into this country in the year 1783. In the year 1792, the rams were made to cross the Ryeland, the Southdown, and other fine-wooled breeds of England. His Majesty king George III. had introduced rams of the Merino breed from Spain, and cultivated it with care. In the year 1804, the sales which then began of his Majesty's stock, attracted great attention to the breed; and, in the year 1811, a society was formed for the purpose of encouraging and extending it.

The result of the crosses with the native sheep has not in any degree fulfilled the expectations formed. The wool of the native sheep has indeed been improved in quality; but this has been accompanied by defects in the characters of the animals themselves not to be compensated by the increased value of the fleece. The sheep of the mixed breed have nearly all proved defective in their forms, slow feeders, and less hardy than the parent stock.

Flocks, however, of the pure Merinos have been preserved, and the progeny of these has remained superior to the new or cross-breeds. The naturalized Merinos retain their natural characters, though the wool becomes longer and heavier than in Spain, and the body more large. But the entire form of the Merino as a feeding animal is bad, the animal small, and the return in mutton deficient both in quantity and value. It is vain that some breeders still contend for the superiority of the pure Merinos; the general judgment of farmers is against them, and with perfect reason.

Could the breeders of this country look more to the fleece than the weight and value of the animal, as in Spain and the parts of Germany where the Merinos have been naturalized, the culture of the breed might become profitable. But the breeder in England finds it his interest to direct attention mainly to the weight and value of the flesh; and while this is so, it will be more advantageous that this country import the wool of other countries than that the feeders either adopt an inferior animal, like the Merino, or sacrifice the more essential properties of the native sheep.

The races of sheep that have been mentioned may be said to be proper to mountains, lower moors, and chalky downs. The sheep of the lower plains are of a larger size, and more productive of flesh and wool, and they are all, it has been said, destitute of horns.

The first of these breeds to be mentioned is the

Devonshire Notts, of which there are two varieties. The first, the dun-faced nott, so named from the brown colour of its face, is a coarse animal, with crooked back and flat sides; it bears a fleece of 10lbs of wool, and is supposed to average, when fat, at 30 months old, about 2½lbs or more the quarter. The other variety is the Bampton nott, which has a white face and legs, but in other respects resembles that last mentioned, producing, however, less wool and being a better feeder. Both of these clumsy breeds have been improved by crosses with the New Leicester.

The Romney-marsh breed has existed from time immemorial in the tract of rich grazing land on the southern coast of the counties of Kent and Sussex. The sheep of this breed are very large, have white faces, and yield a heavy fleece of long wool of good quality of its kind. These sheep are favourites with the London butchers; but their breast is narrow, their extremities coarse, and in other respects their form is defective. They have been crossed by the New Leicester, which has had the effect of diminishing their size and lessening the quantity of their wool, but of improving their general form, and giving them a better disposition to fatten. Some breeders of experience, however, question the good effect of this cross, maintaining that, besides the decrease of weight and deterioration of the fleece, the cross is less suited to the cold and open pastures of the marsh.

The old Lincolnshire sheep, where they yet exist without intermixture, are a large coarse class of sheep, with hollow backs, flat ribs, and a hanging belly. They are slow feeders and their mutton is not esteemed. But they yield a very heavy fleece of long wool.

The Teeswater breed was formerly the stock of the part of England near the river Tees. It is now, however, so entirely changed by crossing with the Dishley breed, that the old unimproved race of the Tees is scarcely now to be found. They were a very large race of sheep, arriving at the greatest weight of any other breed, and, like all the large kinds, being very prolific of lambs. The wool they produced was long and heavy to the fleece.

The old Leicester is a variety of the coarse long-wooled breeds which still exist in several of the midland counties. The sheep of this variety feed to a great weight on rich pastures, but they are coarse slow-feeding animals, and have generally either given place to improved kinds, or had their own characters changed by crossing.

The improved Dishley breed is very generally termed the New Leicester, from having been formed by Mr. Bakewell of Dishley, in the county of Leicestershire. This gentleman was the son of a considerable farmer; and, about the year 1755, had begun to turn his attention to those improvements in the form of feeding animals, by which he became so distinguished. The precise steps which he followed in the forming of his breed of sheep are not known, as he chose to observe a species of mystery upon the subject. He is supposed to have derived his first sheep from Lincolnshire; but however this may be, it was by a steady breeding from the best-formed animals, until the properties aimed at had been acquired, that he gradually corrected the defects, and improved the form of the animals. He was well aware of the external characters which indicate a disposition to feed, and, by a steady course of selection continued during a lifetime, he obtained animals of superior feeding properties to any that had been before cultivated. By constantly breeding, too, from individuals of his own flock, and consequently

near of blood to each other, he gave a permanence to the characters of his breed which it retains to the present hour. Mr. Bakewell adopted the practice of letting out his rams for the season, and this contributed to the general diffusion of his breed. Successors to Mr. Bakewell have continued the same system, and bestowed the utmost care in maintaining the purity of their flocks; and thus from the county of Leicester as a centre, this breed has been spread to every part of England, where the breeders have thought fit to receive it; and it has entirely changed the character of the greater part of the long-woolled breeds of this kingdom.

The sheep of the new Leicester breed are inferior in size to the other varieties which they have supplanted. The wool is but of moderate quality, and in weight it falls short of that of the larger breeds; it weighs from 7lbs to 8lbs, and has a length of pile of from 5 to 7 inches. The value of the breed, therefore, does not consist in the size of the individuals, or the quality or abundance of their wool, but in early maturity, and aptitude to feed. In this latter property, the New Leicester has not been surpassed or equaled by any other breed of cultivated sheep.

The improved Teeswater is derived from the old breed of the Tees. The sheep are smaller than those of the older race, but still they are a weighty class of sheep. They are the largest of all the improved breeds, yield a good fleece, and, like the breed from which they are derived, are very productive of lambs. The Teeswater breed owes its improvement chiefly to crossing with the new Leicester; but the same long-continued care has not been bestowed upon it as upon the other, and, therefore, although feeding to a greater weight, the animals are not so complete in their form, nor so well adapted for general cultivation as the improved Leicester.

The breeds of sheep, then, of this country, may be divided into two classes,—the sheep of the mountains, lower moors, and downs,—and the sheep of the plains.

The sheep of the first class have sometimes horns and sometimes want horns. The finest of them have no horns, namely, the Cheviot and the Southdown. One of them, the black-faced heath breed, has coarse wool; one of them, the moorland sheep of Devonshire, has long but not coarse wool; and all the others have short and fine wool.

Of the moorland and down breeds, as they may be called, the hardest is the black-faced heath breed, and this property points it out as the most suitable for a high and rugged country, where artificial food cannot be procured.

The breed next to this in hardy properties, but surpassing it in the weight of the individuals, is the Cheviot. Where the pasture contains a sufficiency of grasses, this breed deserves the preference over any other known to us for a mountainous country.

The next breed deserving of cultivation is the Southdown. This breed is suited to the chalky and sandy downs of the south of England. It is in this respect a very valuable breed, but it is unsuited to the more rough and elevated pastures, to which the black-faced and Cheviot are adapted.

These are the moorland and down breeds, which appear to be the most deserving of cultivation in this country. Of the larger breeds of the plains, the New Leicester is the best adapted to general cultivation; and wherever an improved system of tillage is established, this admirable breed may be introduced.—*Lou's Agriculture.*

## ON PREPARING SOILS FOR GREEN OR FALLOW CROPS.

BY MR. PATRICK SHIRREFF, MUNGOSWELLS, BY HADDINGTON.

(From the Third Report of Drummond's Agricultural Museum.)

Amongst the changes that have taken place in British Agriculture, the frequent introduction of wide drilled grain or fallow crops may be regarded as one of the most important. They not only have directly augmented, to an immense extent, the means of human subsistence, but also indirectly, by furnishing, through the medium of live stock, animal productions of various kinds. They have rendered a repetition of naked fallow less frequent on all soils, and entirely superseded it on some descriptions. Their efficacy, however, as fallow crops, depend much on the execution of the operations attending the culture of them; and this department of rural economy is particularly calculated to call forth the skill and promptitude of the agriculturist.

The green or fallow crops alluded to consist of a variety of plants, differing from each other in many respects; but the preparation of soil for their reception being pretty uniform, the subject shall be considered under the following heads:—

I. PULVERIZATION of soil aids the retention of contained moisture, and absorption of that which nature from time to time supplies, and is so essential to the prosperity of fallow crops in dry weather, that it may be ranked as one of the leading principles of their culture, if not of agriculture generally. An imperfectly pulverised or cloddy soil exposes additional surface to the action of sun and wind, which facilitates the escape of moisture by evaporation, and deprives spring sown crops of free access to air, dew, and gentle rains, as their roots do not generally enter surface clods, and are consequently circumscribed in their range. In short, a cloddy surface directly aggravates the evils of drought, and diminishes the benefits of moisture, and is so unfriendly to the growth of the crops treated of in almost every stage of their existence, that copious and frequent rains can alone counteract the want of pulverization.

Soil is consolidated by moisture, pressure, and drought, and pulverized by the expansive properties of water and agricultural operations. Copious rains seldom fail to consolidate soil not of silicious or peaty nature, and if immediately followed by pressure from animals, and implements, or drought, their pulverization, however perfect it may have been, is destroyed. It is difficult to explain this progress of consolidation, which is perhaps somewhat analogous to what takes place in the preparation of building mortar.\* The effects resulting from a combination of the mentioned circumstances have been known to agriculturists from the remotest ages, and familiar illustrations of them are afforded by mud walls, and perhaps swallow nests. Agricultural writers have reprobated the performance of field operations, when the soil is in a wet state, and almost every husbandman can testify from experience that the effects are pernicious.

Water has been found to attain its maximum of contraction at a temperature of 39 or 40 degrees,

\* Hence the origin of the term sour, which in Scotland is often applied to soils in such a state, although acidity does not exist.

and to expand when it rises or falls from this point. By the expansive properties of water, the particles of earth when saturated with moisture, are separated by the agency of frost in winter, and sunshine in summer. Clay soils afford striking examples of the expansive powers of water; the effects of which are manifest after frost, and similar effects can be traced after powerful sunshine. Mud walls and swallow nests also illustrate the expansion of water, both being durable when kept dry, and soon tumble to pieces when exposed to rain. The injurious effects to pulverization, arising from pressure of soil, when in a wet state, is perhaps in some degree connected with the properties of water. Particles of soil, when saturated with moisture, are distended and emollient, and if acted on by pressure, water will be expelled; the particles lose their porosity, and become consolidated. When soil in this state is acted on by drought, it becomes hard, resembling the nature of brick, and its complete pulverization can alone be restored by the expansive properties of water. Clay soils sustain much greater injury than silicious ones from pressure when wet: owing, perhaps, to the particles of the former being more attenuated and emollient than those of the latter. On such principles, the following system of operations seem to rest—

The plough, harrow, and roller, are the implements employed to obtain pulverization, and act by friction or rubbing. Soil, intended for a green or fallow crop, is usually ploughed in autumn, with the view of decomposing living vegetable matter, and exposing a larger surface to the effects of frost. As soon as the soil is sufficiently dry in spring to admit of beneficial operations, it is re-ploughed lengthways, or across, as circumstances point out, and immediately harrowed, and rolled by a light meadow roller, drawn by one horse. If the soil partakes of considerable tenacity, it is immediately harrowed and rolled a second time. In some cases, where soil was adhesive from drought, a heavy roller, drawn by two horses, has been used with much effect, immediately after the plough, when harrowing followed by a light roller succeeded. By such operations, light soils are brought to a fine tilth; and when a second spring ploughing is given, followed by harrowing and rolling, those of firm texture become pulverulent. In very dry weather it is necessary, however, to execute the various operations with such rapidity that the extent gone over by the plough, at each half-day's journey, should be completed before leaving the field, and on such occasions the roller may be kept in motion if necessary, *from morning till night by a change of horses*. Should the newly exposed surface be damp, and little evaporation going on, the rolling process must be delayed, and harrowing preceded with it. If rain falls gently, and the soil beneath continues dry, the plough may be kept in motion, and harrowing delayed. If the soil is wet, or the clouds portentous of much rain, ploughing should be suspended, as, under such circumstances, it seldom fails to be destructive of pulverization. In short, the system advocated is to avoid pressing the soil when wet, and to expose as little surface as possible to the evaporising effects of sun and wind, by harrowing and rolling as soon after the plough as operations can be performed. Soils so treated are always found pulverulent, and generally to retain sufficient moisture to germinate seeds without the aid of rain.

It may perhaps be objected to this mode of pulverization, that if rain falls after the application of

the roller, the soil is again cemented, and that the process is intricate and tedious. After an experience of nearly twenty years, I have not found soil particularly injured under such circumstances, provided it is permitted to dry before operations recommence. It is, however, difficult to describe in language the precise state of dryness at which the different operations should be executed, and perhaps a thorough knowledge of them can only be acquired by practice. In clear sunshine, or windy weather, the harrowing and rolling should follow in rapid succession after the plough, and rolling may be performed whenever the soil does not adhere to the implement. There is no other system by which pulverization can be so certainly attained; and farmers may simply test its efficacy by pressing with their feet masses of soil saturated with water, moderately damp, and parched by drought; or by rubbing with their fingers bread newly baked, three days old, and thoroughly dried by exposure to heat. In both cases, the first will be consolidated, the second crumble into dust, and the third into small lumps.

The common mode to pulverize land is to plough it over, and wait for rain to assist the harrowing of it. This mode often answers well, and depends on rain falling for success, and without rain the crop is lost.

2. EXTRACTION OF ROOT WEEDS is effected by the same means as pulverization, and both may be attained simultaneously. Root weeds are, however, chiefly extracted by carding the soil, consequently the harrow is more liberally used, and the roller less so, than when seeking pulverization, and a class of implements are much employed, called grubbers, which are also useful in pulverizing.

After the spring ploughing is completed, the harrows usually pass four times over the field—twice lengthways, and twice across—when the roller is employed, and again the harrows twice in one direction. The root weeds are now carefully picked by the hand, and removed from the field in carts. Ploughing, harrowing, rolling, and picking, are repeated till the roots disappear. Thus the object is attained piecemeal. The plough penetrates to the depth of six or seven inches, the harrows to three or four: hence the necessity of repeating the process. Freeing soil of root weeds by means of the plough, harrow, and roller, often requires considerable time to complete the process. The plough is well calculated for bringing to the surface root weeds that are deep in the soil. But it is defective by cutting those which come in contact with the coulter, and by burying such as happen to be on the surface, and it is perhaps owing to these defects that root weeds are so difficult to extirpate.

The grabber class of implements penetrates soil to a greater depth than the common harrow, and is easier drawn in proportion to the execution effected. It brings deep lying root weeds to the surface, like the plough, without re-burying any of them. In short, grubbers, as extractors of root weeds, unite in some degree the valuable properties of plough and harrow, without their defects, and greatly assist them in expedition and efficacy.

The most useful grabber is Finlayson's self-cleaning harrow, which has been extensively used here since 1825, when I first introduced it into Scotland. The next in utility with which I am acquainted is Kirkwood's grabber, and it was my fortune to give this implement the first practical trial it ever had, when on the eve of sending it to

a friend in Kent, with a view of cultivating his hop grounds. Both implements, I believe, are figured and described in the Quarterly Journal of Agriculture, vol. 3, and also in the second edition of London's Encyclopedia of Agriculture.

At the time of trying Kirkwood's grubber it had some defects which, I understand, have not been remedied; and, although possessing superiority over the self-cleaning harrow in facility of removing the implement from the ground, and regulating the depth of the tines, it appears to me little better than an ingenious evasion of Mr. Finlayson's patent, at the expiry of which a superior implement might be constructed combining the merits of the two. But in the meantime I give a decided preference, founded on experience, to the self-cleaning harrow.

The preceding paragraph was written in January, 1832, and I have lately seen such an implement as it predicts. The implement is the self-cleaning harrow, in shape, size, and strength with the apparatus which facilitates the regulation and lifting of Kirkwood's grubber. It is superior to either of the implements.

The self-cleaning harrow or grubber is employed, after ploughing, in spring, passing twice over the field—once length-ways, and once across. The soil is then rolled, harrowed, and hand-picked. A second ploughing in spring is usually given, followed by the self-cleaning harrow passing once over or twice, according to the prevalence of root weeds, which another rolling, harrowing, or picking never fail to extract.

When extraction of root weeds is pursued in connection with pulverization, I have been in the practice of applying the self-cleaning harrow from time to time, as the land was ploughed in spring, followed immediately by a single turn of the common harrow and wooden roller. In this state the field remains until it has all been gone over, when the self-cleaning harrow is passed across its former course, followed by the roller, and a double time of the common harrow, and then hand-picked. By these means the objects sought for will often be obtained. But in extreme cases the whole operations must be repeated. In others, re-ploughing, with a single turn of the self-cleaning harrow, followed by the common harrow, will suffice.

The use of the self-cleaning harrow and roller must be regulated by circumstances, which the farmer can alone judge of; and with a liberal use of the harrow it is a difficult matter to retain moisture in the soil.

In many parts of the world root weeds are not collected by the hand, and the sun is entrusted with their destruction. But the humid atmosphere and weak sun of Scotland is seldom equal to such a task, and in a majority of instances hand-picking is the best mode of removing root weeds.

3. FORMATION OF DRILLS is effected either by the common plough, or that with two mould boards. The latter forms a drill at one stroke, the former by going and returning in the same track. Of late years, the common plough has been used in forming drills at one stroke, and in this respect has superseded the double mould boarded one.

The formation of drills by one stroke of the common plough, generally requires the preparation of from eight to twelve drills before the operations of manuring, &c. commences. A drill is then formed at one stroke, by the plough passing up contiguous to the last formed preparatory drill, with the mould board inclining towards the undrilled portion of the field. When the plough

reaches the extremity of the field, it turns to the left hand, and passes down the first made preparatory drill, forming a new one with manure or seed in the centre. In this manner, the plough forms a drill for receiving manure or seed in its centre in passing up, and one with manure or seed in its centre in passing down, until the field is completed. The depositing of manure or seed in the drills, is encircled by the plough, which may either form drills with the mould board inclining to or from the undrilled portion of the field, but the first way is the best by aiding the covering of manure.

There must be a limit to the width of drill, which the common plough can form at one stroke. Something will depend on the plough, its guide, and the soil; but I have found no difficulty in forming drills thirty-one inches asunder. It requires a good ploughman to form drills with one stroke of the common plough, and although they do not in the first instance appear so finished as when formed with a double stroke, the most critical eye cannot make a distinction after the roller or harrow hath passed over them.

The formation of drills by one stroke of the plough, as hath been described, was practised here many years, and, when compared with the old method, it has much to recommend it. There is, however, a glaring defect in the process which I have succeeded in remedying.

By attending to the description given of forming drills for the reception of manure or seed, it will be observed that the loosened earth is deposited on the right hand side of the ploughman; and on forming the drill with manure or seed in the centre, the same loosened earth is again deposited on the right hand side; thus the earth forming one side of the drill is twice loosened and manured, while that forming the other side remains stationary. This defect is obvious in every case, and more especially when soil is not well pulverised.

The remedy is found in working the field into divisions, by furrows or *feinings*, and keeping ploughs employed in forming with one stroke, drills for the reception of manure or seed, and others following in the same direction, forming drills with manure or seed in the centre. By this method all the earth is once removed, and both sides of the drill equally loosened. The operations do not, as in the other case, proceed in a circle, but still with equal facility and dispatch, and with better effect on the soil, both as regards pulverization and extraction of root weeds; as the whole, instead of half the drill, is operated upon.

4. FORMATION OF RIDGES, distinguished from that of drills, consists in disposing soil into broad parallel sections. The formation of ridges, by the ordinary process of ploughing, is universally understood. But the formation of them, conjoined with that of drill-making, is perhaps a new feature in agricultural operations, to the invention of which I lay claim.

The formation of ridges cannot be altered when forming drills by the double mould-boarded plough, nor by the common plough at a double stroke, or by moving the earth of one side of the drill twice; and the process of drill-making at one stroke, in which one plough follows in the direction of another, is the only one by which the form of ridges can be effected. When ridges require to be raised or gathered up in the drilling process, a drill is formed by a double turn of the plough in the centre of each ridge. The plough then forms drills for the reception of manure or seed, by



passing up one side of a ridge, and down the adjoining side of the next ridge, till both are completed, leaving the furrow dividing the ridges untouched. Drills, with manure or seed in the centre, are formed by the plough giving a double stroke to the first formed drill, in the centre of each ridge, and afterwards passing up one side of the ridge and down the adjoining side of the next, till reaching the furrow, which is divided and cleared by a double turn of the plough. In this manner ridges are raised as effectually as by the ordinary process of ploughing. In short, by this system of drill making, ridges may be altered in every form, precisely as by the common mode of ploughing. There is, however, one peculiarity meriting notice.

The mode of raising or gathering up ridges just noticed, supposes the ridges to contain an odd number of drills—one in the centre, and an equal number on each side. When ridges, containing an even number of drills, require to be raised, the regulating or first stricken drill, is not in the centre, but on one side of ridge, which must have an even number of drills on one side of the regulating drill, and an odd number on the other. Suppose, by way of illustration, the ridge requiring to be raised to contain eight drills, four must be on one side of the regulating drill, and three on the other. In this case, regulating drills must be formed on two adjoining ridges, so as to leave space for three drills on each side of the intermediate furrow, and on the third ridge so as to leave space for four drills on each side of the intermediate furrow; and so on over the field, forming the regulating drill on each ridge, so as to leave space alternately for three or four drills on each side of the intermediate furrows. In this manner the process goes on as if the ridges contained an odd number of drills, and the effect on the furrows is the same.

5. APPLICATION OF MANURES is effected chiefly by the cart; and that of farm-yard manure, previous to the formation of drills, is so well known that it is unnecessary to describe it. There is, however, a mode of applying a bulky commodity, such as compost of lime and earth, which I have found advantageous, and which is not generally practised.

The application of lime compost commonly takes place in autumn, or during frost in winter, and when not accomplished in these seasons, dry weather in spring may be chosen for the operation. In applying compost it is usual to commence at one side of the field, and complete ridge by ridge till the whole is gone over. In this way each ridge in turn is submitted to the pressure of the cart wheels and horses' feet passing to and fro, by which the pulverization of the field is materially injured. To avoid this I have been in the practice of chequering the field in the manner of a chess board, by marking the ridges across with the plough, and then reserving a ridge for a road, by depositing the compost latitudinally on each ridge. Suppose, for example, that three heaps of compost are formed from one cart-load. In this case the fourth ridge becomes a road, and the carts deposit compost across three ridges on each side—thus every seventh ridge becomes a road, and the pulverization of the others in a great measure preserved. By this mode of applying compost a firm road is soon formed, facilitating transport, and limiting the soil, the pulverization of which has been destroyed by pressure to a few ridges, which can be again restored to a fine tilth by a liberal use of the

plough, harrow, and roller, without disturbing the rest of the field.

Farm-yard manure, when applied to green crops, is commonly deposited in the drills at the time of sowing, being drawn from carts into small heaps, and spread into the bottom of the drills by boys and girls. To preserve accuracy in application the cart loads should be formed all of one size, and have a space marked off for the contents of each going over. The dung for each row of heaps may be apportioned for these four or five drills. A reflecting person will therefore vary the size of cart loads and number of drills to each row of heaps, as circumstances point out. The spreading of manure is best attained by marking off a cross section of drills for each individual. This affords opportunity of checking negligence on the part of the spreaders, and insures a regular and perfect application of manure, while each individual can be tasked to his ability.

The number of individuals employed in spreading, must be proportioned to those filling the carts.

A general rule cannot be laid down on this head, as much depends on the nature of the manure and quantity applied. In general, matters proceed with dispatch, when three men are loading and two emptying carts, the number of which is regulated by the distance of transports.

Having detailed a system of preparing soil for grain or fallow crops, which I have extensively practised for many years, and can testify to its efficacy, I do not, however, contend for its general application, as circumstances may occur to warrant its modification.

If I am right in stating vegetable prosperity to be checked by pressing soil, when met by undue exposure to evaporation, and want of pulverization, the application of steam power may accomplish much for British agriculture.

The present system requiring a progression of field operations, through almost every day of the year, they are often completest when the state of the soil is unfit for their execution, and every reflecting and candid farmer will admit, that much of the present labour required to extract root weeds and obtain pulverization, results from previous ill-timed operations. Steam power would admit of delaying operations till soil was in the best state for their execution; and the advantages of its introduction may be expected to result as much from beneficial effects on the soil, as from saving of labour.

P. S.

*Mungoswells, by Haddington.*

AGRICULTURE.—TRIFOLIUM INCARNATUM.—The following is a further testimony to the productiveness of this valuable grass:—"In answer to your (Messrs. Wrench's) question about sowing Trifolium in the spring, I have no hesitation in saying it answers exceedingly well, for, on referring to my book, I find I drilled two acres on the 7th day of April last year—on June 10th there was a very full crop; and, although a very unfavourable season, I cut it for seed in August, and have the grass now by me: the piece of ground where it grew has at present a very fine plant on it that siled from the former seed, and has had no preparation whatever.—G. K.—Trotsworth, 20th Feb., 1836."

IMPOUNDING CATTLE.—By virtue of an act passed last session, a person impounding cattle is bound to provide them with food, and any person entering for the purpose of attending to his cattle, is considered not guilty of trespass. This proviso is included in the act for preventing cruelty to animals.

## BEDFORDSHIRE.

*From Kennedy and Grainger's Customs and Practice of Tenancy in the different counties, published in 1828.*

In many parts of this county the soil is peculiarly well adapted for the growth of vegetables; and from its being naturally one of quick or early production, a number of acres are devoted to horticultural purposes, for the supply of the London, Cambridge, and other neighbouring markets. The county presents an alternation of gentle hills, and beautiful, extensive vales. The soil is generally sandy; it formerly, in several places, produced nothing but forest wood, but the greatest part of what used to consist of waste land and chases, is now cultivated, and is become very fertile.

The eastern side of the county is chiefly a sandy loam, with the exception of some spots where the soil is poor and hungry, and of the worst kind of clay. There is a limited proportion of grazing land in Bedfordshire, but the greater part of it is very good. The chief articles of produce in this county are corn and vegetables; and it is especially noted for early peas.

**PRACTICE OF TENANCY.**—The most usual time for entering upon a farm is at Michaelmas; but some takings are at Lady-day: the farms are most commonly let upon a short lease of seven years.

The rents are paid half-yearly: the highway-tax is half paid, and half worked out; the poor-rates are generally heavy; they are collected, in some places, once a month, or as often as the money is wanted. In districts where the land is chiefly used in grazing, the neighbouring arable parishes suffer much in consequence of the superabundance of hands, and the difficulty of finding employment for them. With regard to tithes, they are chiefly paid by composition; in some places, where inclosures have been made by act of Parliament, the tithes have been extinguished, in consideration of an allotment of land.

**CUSTOMS BETWEEN LANDLORD AND TENANT, AND THE INCOMING AND OUTGOING TENANT.**—A tenant is generally restricted from breaking up pasture land; he is likewise bound to feed all hay and straw upon the premises: this latter restraint is now much more general than it used to be, owing to the great inconvenience occasioned within a few years past, in various places, from the want of it: there are some farms, however, which are still free from the restriction; but as the leases terminate, it is generally imposed upon the new tenant.

With regard to the mode of farming—the quantity or rotation of crops, there is no general rule, nor as to the proportion of wheat allowed to be sown.

A tenant quitting at Michaelmas, is at liberty to plough and sow the wheat; and one leaving at Lady-day, to sow the spring corn; provided, in the former case, the grain can be sown by Michaelmas-day, and in the latter by Lady-day: the outgoing tenant, however, has the option, in both cases, of either sowing it himself, or of allowing his successor to come upon the land and do it instead.

When the outgoing sows the crops, they are generally valued to the incomer, so as to include all the labour bestowed upon them, provided he chooses to take them; but if he refuses them, the former is obliged to hold the land he has sown till harvest-time, and spend the straw of the crop upon the premises, having barn and yard room allowed him for that purpose. Where, however, a tenant is free from this restriction, the corn and straw are generally carried off elsewhere; but under either custom, the incomer has a right to make use of all the dung he finds upon the premises, free of expense, no pay-

ment for it being required. The incomer pays for the grass seeds according to their value, and that of the labour, and likewise for fallow-ploughing, or any spring-ploughing, which his predecessor, quitting at Lady-day, had not time to sow: but with respect to any fallow, either for wheat or turnips, when the outgoing takes the crop, there is no demand made upon the incoming tenant.

**MODE OF CULTIVATION, IMPLEMENTS, &c.**—Owing to the nature of the soil, turnips can be very profitably cultivated, and they are generally grown throughout the county, especially the Swedish turnip, which is produced in great quantities, and of very excellent quality. The rotation upon the sandy soil is—first, turnips; second, barley; third, seeds; fourth, wheat. On the loamy soil, beans or oats are generally sown after the wheat; and upon the clays, beans and wheat are the principal produce.

It is a very common practice to lay clay upon the land, which is found greatly to improve a sandy soil, and it is frequently applied as a manure for turnips, but it is requisite it should be spread out in the winter, in order that it may be purified by the frost: the clay, in many respects, changes the nature of the soil, and its effects continue to operate for many years. The drill is now much used, owing to the lightness of the soil; great part of the wheat is planted by the dibble, in the same manner as beans; and this practice has been proved to answer a better purpose than sowing or drilling, as the wheat finds a firmer rooting, and the ground does not require nearly so much harrowing, in order to cover the grain. Threshing machines are now much disused, being seldom seen in any part of the county. The plough which is now in most general use, is the Ipswich plough, with cast-iron tips.

With regard to the draining, it is chiefly laid in with bushes and straw, and generally at the expense of the tenant. The outbuildings, which are very neatly thatched and weather-boarded, are most commonly kept in repair at the charge of the landlord.

**THE CORN TRADE.**—(From the *Lincolnshire Chronicle*).—We are happy to say that our market hill was more numerously attended on Friday last, than for some time past. The demand for wheat and barley was brisk and the prices of the two previous markets were firmly maintained, so that we have a fair prospect of the continuance of the improvement effected in the last two months. Murmuring amongst the agriculturists, is becoming fainter and fainter, and will we doubt not, ere long die away. The principal thing now needed to give stability and permanency to the farmer's comforts, is a rigid attention to the following aphorisms:—

Hand to the Plough:  
Wife to the Cow,  
Boy to the Mow,  
Maid to the Sow,  
Will pay the Rent now:  
But—Man with his Tally-ho,  
Wife squalling Pian-o!  
Girl with her Satin-oh!  
Boy at Tatts or at E. O.!

Is splash, dash, and must end in ruin-oh!

**UNRIVALLED LINCOLNSHIRE SHEEP.**—Farmers, graziers, and others will have a famous treat at Brigg, on Thursday the 10th day of March next, as Henry Healey, Esq., of High Risby, will on that day have his extraordinary large sheep shown and slaughtered at the Lion Hotel. It is supposed he will weigh 73lbs per qr—and clip more than 14lbs of wool, and for symmetry and all that can be wished for in a sheep, he is allowed by judges to be without a parallel.

## ON FORMING NEW LEYS.

To the Editor of the *Irish Farmer's and Gardener's Magazine*.

SIR.—From a paper in the last number of your very interesting periodical, I have been induced, hastily, to throw together a few crude remarks on the subject of pastures, acquired from some degree of practical experience, which, from my observations and the general importance I am disposed to attach to it, appears to have claimed less attention than any other branch of husbandry.

From the great depreciation in the value of produce, I resolved, some years since, to convert the principal portion of my farm into a permanent sheep pasture; but differing very widely from the mode so generally adopted, of throwing out land to recover itself, (as it is termed) which, in this instance, it might, perhaps, have been thought could very well have been done, from my farm being at the time in a high state of cultivation—but as I was satisfied, complete success, with the greatest amount of profit, must mainly depend upon the most enriching preparation of soil I could attain to, accompanied by a clean course of tillage, for two successive seasons the land was cultivated with drill potatoes, and each winter, thrown into drills, to keep it dry, and expose as much of the surface as possible to the ameliorating influence of the frosts. I had been previously engaged, for a considerable time in making various experiments, in the produce, as well as early and late growth of different descriptions of grasses, and for the purpose of acquiring additional information, had corresponded with an eminent agriculturist in England, who I was aware chiefly directed his attention to this subject. By his reply I was happy to find he entirely coincided with me, in concluding that no grasses could be found to rival the cocksfoot, meadow foxtail, and tall smooth-stalked meadow grass, which, for the benefit of the practical agriculturist, I give in your English names; and which, in all my experiments, invariably proved, beyond all comparison, to afford the most abundant produce, throughout the entire season, and from their hardy nature, continuing to vegetate during the greater part of the winter. However, he recommended me to make an addition of some sweet vernal, dogtail, and fescue grass, which having obtained, I sowed two fields, one with the addition of these descriptions, and the other without, adding about 6lbs of perennial clover per acre. The quantity I use is from six to seven bushels per Irish acre, with this description of clover. The ground having been kept very dry by the drills, throughout the winter, it was in the highest state of till, so that I could avail myself of the earliest opportunity to give it a slight ploughing and harrowing to level the drills, and after a turn of the roller, the seeds were sown. It is most essential to have the surface as level as possible, so that the seed may fall evenly over the ground, which is never so effectually accomplished when put in after the harrow, as they lie in the hollows, and consequently come up patchy. After a double strike of the harrow, it was again rolled, and the work completed. The vegetation was most rapid and yielded an abundant crop of hay, which being carted off as soon as possible, was succeeded by a most luxuriant after-growth, which proved a seasonable supply for early ewes. I soon, however, discovered that the grasses I had been induced to add no way answered my expectation; for wherever they were found growing the verdure was scanty and the growth tardy and diminutive compared with the luxuriance

of those of my own selection; so that since that period I have never used any other description than the cocksfoot and meadow foxtail; for finding it very difficult, and being too often disappointed in not being able to procure genuine seed of the tall and smooth-stalked meadow grass, in London, I have wholly discontinued it, and now use an equal quantity of each. The principal part of my seeds are gathered in the neighbourhood, by women and children, at 4s per bushel; for being indigenous, they are found flourishing in great abundance every where around us. The abundant produce of my pastures soon satisfied me of the benefit of this system, which I have steadily pursued until now. Nearly the whole of my farm is converted into pasture; but I find it much preferable, as soon as the grass is sufficiently high for the scythe, to cut and carry it into the house for feeding, rolling it well immediately afterwards, which assists in giving the roots a firm hold of the ground, so that I never sustain any injury from feeding it down with sheep, when a good covering is left to protect the young roots from the influence of severe frosts in the winter. By this means the annual weeds, which, with all the care that can be bestowed, it is impossible to guard against, are entirely destroyed. The air being allowed a free circulation, encourages the growth of the delicate and backward plants, which otherwise would become choked by the closeness of the crop and weeds, leaving the ground in many places destitute of grass. I have sprinkled a small quantity of rape with the grass seeds, eating both down together; but the drops from the leaves, with the shade of the plants, proved more prejudicial than any benefit derived by either the land or the stock, added to the additional trouble of cutting the rape stalks, with the chicken and other weeds, which must be expected to spring up.

Those who may be induced to make a trial of this mode of culture will, I am persuaded, be repaid 100 per cent: and I venture to assert, will be rewarded by obtaining the most luxuriant pasture, with as close and even a turf in the second season as the oldest lea can afford.

Should these few hasty and undigested remarks be found deserving of insertion in your magazine, or any way prove useful to the agriculturist, who, while every other class of the community appear to be amply rewarded for their industry and exertion, are, I feel persuaded, weighed down and contending with complicated difficulties and discouragements, probably, on a future occasion, I may be induced to communicate some remarks on the failure of our staple produce of the soil, with the advantages resulting from the application of bone manure, which I have employed with great success in the cultivation of turnips. A DOWNSHIRE AGRICULTURIST.

ESSEX.—A PROLIFIC SHEEP.—An ewe belonging to Mr. J. H. Hudson, of Barnston, near Great Dunmow, which was itself lambd on the 1st April, 1830, has produced in the course of five years and eleven months twelve lambs, viz.:—On the 14th February, 1831, it lambd one, which being born on St. Valentine's day, the owner bestowed upon it the name of Valentine. On Good Friday, 1832, it again lambd one; this is called Friday. On the 4th March, 1833, it had two lambs, these were named Bob and Joan. On March 10, 1834, it again lambd two, these are named Tom and Jerry. On the 13th March, 1835, it had three, which the owner calls Shadrach, Meshach, and Abednego. On the 1st of the present month it again lambd three. The last six are alive and with their mother

## COUNTY RATES.

Through the kindness of our Armagh Correspondent we have procured the copy of a Petition to Parliament, forwarded from thence, the subject of which we consider of such importance that we lose not a moment in laying it before our readers, hoping that the country gentlemen who may still have to assemble in the Counties wherein the Assizes have not as yet been held may be induced to take up the matter, and support, by corresponding Petitions, the prayer for redress of the palpable grievance which the Gentlemen of the County of Armagh have put forth with so much temper and firmness, and which we are only surprised has not much sooner been brought under the attention of Parliament. The Grand Jury assessments in Ireland must amount to fully one million sterling, and the entire revenues of customs and excise of the kingdom are little more than three millions—so that the owners of property, in lands and houses, it thus would appear, are actually paying one-third more of taxation than any other class of persons whatever, which certainly is a grievance that ought to be redressed. Our limited space prevents us from indulging in further observations, and we shall therefore content ourselves with merely referring to the document itself, which will be read with interest, if we are not much mistaken, in every part of the empire, and perhaps may be the means of making the payers of county rates in England, who are aggrieved in somewhat a similar way, to take up the subject, and to unite in pressing it upon the attention of the legislature:—

“To the Right Honourable and Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled.

“The Petition of the undersigned members of the Grand Panel of the County of Armagh,

“Humbly sheweth,

“That for a long period of time Grand Juries in Ireland have been made the medium of imposing taxes for the construction and repair of roads, building gaols, court-houses, bridewells, infirmaries, lunatic asylums, &c. &c., and likewise for the expense of maintaining the prisoners and patients therein, salaries of public officers, costs of prosecutions, &c., and for many other objects of a public nature.

“That the taxes so raised by Grand Juries for the purposes aforesaid, have been levied off lands and houses, according to an ancient rule of apportionment, without in any manner whatever affecting any other species of property.

“That by this other mode of taxation, the entire burthen falls upon the landlords of said lands and houses so taxed, and is a direct deduction from the value of their property and the income arising therefrom.

“That the grievance which landlords have thus a right to complain of as being subject to a taxation from which all their fellow-subjects are free, has already increased to such a degree, that the county assessments have in several places become nearly equal, or even more than the entire rent of the land so assessed amounted to sixty or seventy years ago, though the price of wheat is at present lower than it averaged then, or has ever done since.

“That your petitioners nevertheless perceive, that to the excessive taxation thus shewn already to exist, there is now a further addition to be made under the new constabulary act, for superannuation of constables, salaries of stipendiary magistrates, and an increased establishment of police when thought necessary by the government—all of which cannot fail ultimately to increase most materially the county assessments.

“That your petitioners, belonging chiefly to that class of the community which is thus evidently aggrieved, have for a long succession of years, been the passive instruments of carrying into effect this unjust

principle of taxation; but at length forced by the loud complaints which are made of, and to them—and the public feeling which has been excited by the increasing amount of the assessments they are forced to impose, your petitioners are induced to apply to your honourable house for redress, and most respectfully beg leave to represent

“That landlords, whether of houses or lands, contribute to the general taxation in like manner as any other class of his Majesty's subjects in this part of the united kingdom, and that it is evidently unjust, in the highest degree, to charge them solely for objects, the benefit of which all others equally enjoy.

“Your petitioners beg also to state, that it is not merely in regard to taxation the Grand Jury laws are defective; but are also most erroneous in principle, and inefficient in practice, as regards the repair of the public roads of the county, being that branch of the expenditure which more particularly falls under your petitioners' observation—in which respect they beg to refer to the evidence given before a committee of your honourable house on the Board of Works, during last session, page 279, by William Blacker, Esq. Your petitioners are also of opinion that a general turnpike bill should be passed, by which the enormous expense of separate local acts might be evaded, and the passengers be made to pay for the convenience and use of the public road he enjoys.

“Your petitioners likewise complain that the Armagh Grand Jury are now called on to repay a large sum, expended in putting the act, commonly called ‘the Million Act,’ in force; and they have been, in like manner, called upon formerly to repay government advances under the Cholera Act, and for which purpose they are sorry to perceive a demand is made upon the Grand Jury of the city and liberties of Limerick, to the extent of five thousand six hundred pounds sterling. And your petitioners further perceive that the introducers of sundry bills into your honourable house, for the employment and support of the poor, and building poor-houses for their accommodation, &c., all contemplate to raise the expenses thereof by means of baronial assessments, upon the same principle as Grand Jury taxation.

“Your petitioners, therefore, think themselves called upon most respectfully, but most decidedly, to protest against the principle of levying, by a partial assessment on the property of landlords, sums of any kind, whether large or small, for these or other objects, with which they are in no way connected more than any other class of the community; and they do earnestly entreat that your honourable house shall adopt some more equitable principle of providing for the public burdens, by which all may equally contribute to what all equally derive benefit from.—And your petitioners, as in duty bound, will ever pray.

“Alexander,	W. M. Bond,
Leonard Dobbin,	Roger Hall,
G. H. A. Molyneux,	A. J. Kelly,
Wm. H. Algeo,	Alex. Hamilton,
Arthur Tuom,	Barnet M'Kee,
John Whaley,	Robert Hardin,
Maxwell Cross,	Edward Obre,
Charles Hunt,	Charles Fox,
Wm. John Hancock,	Thos. Dobbins,
A. St. George,	Wm. Jones Armstrong,
John Barnes,	Francis Stringer,
W. Blacker,	W. Blacker, of Armagh,
Thos. Atkin-on,	John Thompson,
R. S. Thomson,	Wm. Olpherts,
J. M. Stronge, Foreman,	John Robert Irwin,
Thos. Molyneux,	Thos. Knox Armstrong,”
M. Close,	

A RARE COW.—The celebrated “Maddresfield Heifer,” the property of Mr. Payne, of this city, was put up by public auction, by Mr. Hobbs, at Bronwich farm, on Monday. There was a respectable and numerous attendance of company, but the heifer was not sold, the highest bidding being 54*l.*, at which sum Mr. Payne would not consent to part with her.—*Worcester Herald.*

## HORSEMANSHIP.

## THE FLYING LEAP.

The position in the standing leap is applicable also to the flying leap. It is easier to sit by an experienced horseman, because the horse's body preserves a more horizontal position, occasioned by the animal taking his spring at a greater distance from the lar and going further over—the rise and fall are not so distinctly marked. In consequence, the rider has no occasion to bring his body quite so forward when the horse's fore legs rise, as the spring from the hind legs immediately follows. Therefore, keep your body upright, keep your hand down, take hold with your legs in the manner described under the preceding head; and as the horse springs slip your breech forward, and your body will not fail to take the corresponding motion of leaning back. Let your body become upright, keep your knee and legs firmly grasped till the hind feet have come to the ground, bearing the horse's mouth nicely in your hand as he alights.

The horse should rather canter than go full gallop at a flying leap; and yet it should be done in a determined manner both by the horse and his rider: if the rider hesitate, or manifest any timidity, the horse will immediately perceive it, and will be very apt to swerve or refuse the leap, and consequently endanger the rider. Never allow your body to come forward even at the commencement of the flying leap, lest the horse should not come fair at it, refuse, or stop, in which cases, with your body forward, you would be very liable to be thrown. If the horse jumps willingly, allow him to take his own pace at it, if otherwise, take the horse fifteen or sixteen yards from the bar, place his head fairly towards it, touch him with the spurs just as he starts but not afterwards:—he will most likely trot a few steps, and strike into a short gallop for a stroke or two before he springs. If the horse be very sluggish, the smart application of the spurs just before you turn his head towards the leap, (but not when he is going at it), will not fail to give him the requisite animation. If you are suspicious that he will be likely to swerve, apply the right hand, as well as the left, to the bridle, by which means you will be much better able to keep his head straight; when the horse is about to spring, let go the bridle with the right hand.

A horse requires but little support from the hand till he is over his leap and coming to the ground; his head should be merely kept steady, till he is landing, when the support of the hand is highly proper, as it eases the horse, and also the rider, and assists in bringing the body of the latter upright.

Many persons, in taking a flying leap, elevate the right hand as the horse comes to the ground, which the riding master will say, throws the body out of square; but it should be recollected that the left hand is drawn a little forward by the horse's landing, and thus a counterbalance is presented. It amounts to little whether the right hand is elevated, but I never perceived that injury resulted from it.

## THE RESTIVE HORSE.

In a previous article, I spoke of vicious and un-

ruly horses, under which description the *restive horse* might be correctly enough placed; but, as there are many vicious and unruly horses, which, strictly speaking, cannot be called *restive*, so, I have thought it best to treat *restiveness* in the horse under a separate head.

*Restiveness* arises from a cowardly disposition or bad temper, which stubbornly refuses obedience where the horse perceives the rider has not sufficient skill to force or compel him to perform his wishes. *Restive* horses are very cunning, and are for ever on the watch for opportunities of putting in practice their evil propensities. They feel, as it were, for the firmness of the rider's seat and the strength of his resolution; and if they perceive that they are likely to be successfully opposed, they will wait till an opportunity and situation are presented where they can commence hostilities with advantage; and they are certain to defend themselves stoutly on the point upon which they expect to be attacked.

It will frequently happen, on bringing a *restive* horse out of the stable and mounting him, that, before he has moved far, he will breathe harder than usual, place his ears forward, and affect a degree of alarm; and at the first object which appears to suit his purpose, he will pretend to be frightened. He commences his attack by stopping, turning short round, and, if allowed, will return very quietly to his stable. Some *restive* horses select a windmill at which to affect alarm, others a house or building, others a tree, and so on; but not one of them will proceed far, if he perceive he has a timid and unskilful rider on his back, without selecting some object at which he may stare and startle as a prelude to his tricks, for the purpose of returning to the stable.

There are other *restive* horses, which will proceed quietly enough till they come to a public house, a stable, or a farm yard, to which they will go up; and, if opposed, will offer battle. Such horses are very dangerous in unskilful hands; as, if these are not suffered to proceed to the place which they have marked out to stop at, they will sidle up to the wall, rush into a stable or even a house if the door happen to be open, and that too with obstinate and determined violence. These efforts, however, are easily counteracted by skill, but not by the whip and spur; for, under these and similar circumstances, the use of the whip and spurs is worse than nothing:—and even should a very resolute strong man force a horse to obey by dint of mere strength, flogging and spurring, the horse seldom seems to think that he is completely subdued, but will, on the first convenient opportunity, try the matter again. It is the skilful, judicious, and well-timed operation of the hands which completely subdues the horse: twisting him about, confuses him, (as I have already observed) and when he is twisted round several times he becomes giddy, loses entirely his power of opposition, and obeys the rider's will. Let it, however, not be forgotten, that there is an awkward and an expert method of twisting the horse; and if the former mode is used, the contest will be prolonged, perhaps become doubtful, and at all events, place the rider in danger.

When a *restive* horse endeavours to force you

against a wall, &c. do not pull him from it, but *bend* his head to it, by which the side of the horse, next the wall, is forced into a concave position, and he is thus prevented from injuring the rider. The instant the horse is perceived sideling to any object, you may turn his head to that object, and back him from it, but bending his head to it is preferable. Should he rear, you will adopt the method already described for counteracting his efforts. But horses of this description seldom rear.

Most of these restive horses will go well enough in a town (except passing their own stable) but they will not go far from it, if they can avoid it. A friend of mine accidentally purchased a mare which he thought uncommonly cheap, and indeed the price was low. She was a handsome dark chestnut, and at his request, I mounted her for the purpose of riding her a few miles. She went very well in the town, but I soon perceived an alteration when I left it and was proceeding on the road. I fully expected she would prove restive, and I was not deceived. Yet we had proceeded nearly five miles before she offered battle; the contest did not last long, and she carried me very well the rest of the journey; but the owner, could not be prevailed upon to mount her in consequence of my report, but immediately sold her.

Many of these restive horses will go very well in company. A dealer once offered me a horse at what I thought a very moderate price; and I felt disposed to purchase him, if, after trial, he pleased me. He was a fine grey horse, the dealer represented him to be a superior hunter, and from his strength and form it seemed very probable. It was agreed that I should meet the hounds with him the following day, and the dealer accompanied me. All went on tolerably well till, in the commencement of the run, the dealer and I got separated, when he refused the next jump; and, although he afterwards took it, the time occupied in manœuvring him enabled the hounds to get so far ahead, that I was not able afterwards to reach them.

There is another description of horses whose obstinate disposition amounts to a species of restiveness. I purchased a little black Irish horse, which I rode for some weeks, several times after the hounds, and I was well carried. Happening, however, one afternoon, on my return home, to have a little business which took me out of the road, on attempting to turn down a lane, the horse refused. He reared in a trifling degree; then, placing his off fore foot in advance seemed to bid me defiance. I twisted him to the left several times, placed his head in the direction I wished to proceed, applied the spurs sharply, when he sprang into the gallop, which I compelled him to continue for several hundred yards, in the first part of which I administered the whip and spurs twice or thrice. The horse never attempted a similar prank with me; but got master of my servant, under similar circumstances, who was never afterwards able to ride him.

In all contests with the horse, the great object of the rider should be to counteract or frustrate the intentions of the horse, and protect himself from injury. As the horse is weaker on one side than the other,

so the rider may be said to be also; for instance, most men possess more strength in the right hand than in the left; more power of grasp on one side than the other\*; and an unruly horse has generally cunning enough to perceive on which side he is held the firmest, and will therefore attack your weak side: the horse will be found so well prepared on one side for resistance that it is not advisable to attack him on it. Instead of attempting to prevent his efforts on that side, pull him round on the other, and place his head in the direction you wish to proceed: the spur may be used, but seldom succeeds. On the contrary, the horse generally turns round again; and you, in like manner, attacking his unguarded side, turn him round two or three times, and act in the manner which I have already described, and it will very rarely fail to have the desired effect.

Some horses will stand still and obstinately refuse to go forward, in which case, if you cannot turn him round, rein him backward, which may be easily accomplished; and on no account contend with him on the particular point upon which he is prepared to dispute or resist. He must be foiled by counteraction. In cases where the horse can neither be moved forward nor backward, allow him to stand still, sit quietly on his back, and in the course of a few minutes, he will move forward. Whenever a person purposes to contend with a horse with a view to cure him of some species of vice, he should select a situation calculated for the purpose, a clear open space, where consequently there can be no danger of the rider being crushed against walls, trees or other obstacles. And it is necessary to remark, that restive horses are artful enough to take all advantages; and, where they can, will sidle to other horses, carts, rails, &c. Under such circumstances, let me repeat, turn his head directly to the object, and back him from it, but use neither whip nor spurs.

It should be the rider's object to discover the temper and disposition of the horse, by which he will be enabled the better to direct his movements. There are horses so averse in spirit that they may be whipped out of their tricks, others, (and by far the greater part) require different treatment; and I am by no means an advocate for the whip and spur under any other circumstances than where they are absolutely necessary; and, generally speaking, unruly horses are much better manœuvred and overcome without them.

When the horse shies at any object, let the rider keep his eye directed to the horse's ears. This observation should be steadily kept in mind, in all cases with vicious horses:—the ears are strong indications to the rider of the intentions of the horse.

I have often been much surprised that so very few persons seem to be acquainted with the astonishing efficacy of the hands in the management of a restive or unruly horse, and particularly of the masterly manœuvre of twisting round; the failure

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\* The bone of the knee with which the rider grasps or presses more strongly will be found more prominent than the other; so it may be equally observed that, where the muscle is the most exercised it will be the largest and the most powerful.

of which I never yet witnessed! Grooms, and generally those whose principal business it is to attend horses, know nothing about the matter. How often have I seen one of this class upon a stubborn horse, display much more obstinate stupidity than the animal he was endeavouring to render obedient! In such cases, the whip and spur are vigorously and unmercifully employed, the rider is admired by the gaping crowd for his courage, the contest becomes doubtful and dangerous in the highest degree; and should the rider ultimately succeed, it may be considered as a respite, or suspension of hostilities: the horse does not consider himself subdued, and will not fail to renew the encounter at no distant period.

When a horse has been subdued, the rider should not exult in his triumph by administering the whip after the battle is over, and the horse has given in. A friend of mine, a year or two back, succeeded in rendering an unruly horse quiet, wherein he very injudiciously made a free use of the whip and spurs. The horse submitted, and the rider was requested not to apply the whip again; however, after he had stood for some seconds or a minute or two, he gave the horse another stroke. The latter recommenced the struggle, which he finished by throwing his rider! It then became a much more difficult task to render the horse obedient.

### PLUNGING.

I have already remarked that rearing is a most dangerous vice in horses; and the same observation will, in a great degree, apply to plunging; which, however, very fortunately, principally occurs at the period of breaking, when the animal is rendered incapable of doing much mischief, by the systematic preparations which are made for the purpose. No horse can continue plunging for any length of time, since the violent exertion necessary to produce it soon exhausts his strength. When a horse intends to plunge, he sets up his back, swells his body as if to break his girths, cringes his tail between his quarters, and in this position kicks and plunges as long as he can hold his breath; and since he holds his breath all the time, it is an operation which cannot last long. A horse cannot plunge more than five or six times before he must pause to breathe; and if he be unsuccessful, and the rider remains firmly seated on his back, his next attempt will be shorter, and he will soon give it up altogether. If, however, the rider should be unhorsed, the animal will try the experiment again as vigorously as possible.

With a plunging horse, the rider must take firm hold with his legs, and take care that the horse, in getting his head down does not draw the rider's body forward. There is no danger of the horse rearing; and therefore, if the body be kept well back, and the horse held firmly, the rider will maintain his seat, and the horse, if young, (that is, when breaking) may perhaps attempt to plunge for two or three days, but with decreased violence every successive time. One principal care of the rider should be, to hold the horse firmly so as to prevent him throwing himself down, which, should the animal get his head loose, would be very likely to occur. A horse, with proper treatment, seldom plunges violently.

There are, however, sometimes seen aged horses

which may be called vicious plungers. When one of this description commences plunging, the rider may sit out the fit of plunging, if he think proper; but, if he force the horse into a gallop after the first or second plunge, the business will be sooner brought to a conclusion, and with less risk to the rider. If the situation happens to be convenient, I would gallop the horse for half a mile or more, and give him the steel and the lash very freely for the first two hundred yards. He will not be much inclined to plunge afterwards with the same rider.

I have seen some brutes, when they could plunge no longer, make every effort to throw themselves down, and thus, if possible, to fall upon their riders. Generally speaking, however, horses are afraid of falling, and even when they throw themselves down in plunging it helps to subjugate them. But the moment they are on their legs, the rider should be on their back.

### THE RAT.

(From Johnson's *Vermin Destroyer, and Gamekeeper's Directory*.)

Of rats there are three distinct varieties found in this country:—the large brown rat, the black rat, and the water rat. They are all predaceous: they will destroy young game, young chickens, young ducks, and young pigeons. Their depredations on the labours of the farmer are well known, as well as the mischief which they commit in houses, warehouses, mills, &c.

We are told that the black rat was formerly very numerous in this country; but since the introduction of the large brown rat, their numbers have greatly diminished, being compelled to give way to their stronger and fiercer competitors. The large brown rat will form the principal object of consideration, an animal too well known to need minute description.

During summer they reside principally in holes on the banks of rivers, ditches, and ponds: but, as winter comes on, they approach the human habitations, and very often take up their abode in barns, corn stacks, &c. They have haunts or runs in the walls and under the floors of old houses, where they frequently injure the furniture; and they have even been known to gnaw the extremities of infants while asleep. They swim with ease and will dive after fish.

Rats increase very fast:—they will bring forth three times a year, and produce from ten to fifteen at a birth. They are numerous in most large towns; and though they seek the fields on the approach of summer, it generally arises from a diminution of food about farm houses, &c. as well as from the insecurity which they feel from the removal of the corn-stacks, the clearing of the barns &c. at the same time that plenty of food is presented abroad in the fields. When a colony of these animals happens to take possession of a field of standing corn, they make dreadful havoc.

These animals will attack young poultry, and even the old, if pressed by hunger; and their voracity is such that they have been known to fasten on the fatter parts of living stone; nor are infants in their cradle always free from their attacks. They will destroy young game, and, indeed, the rat may be regarded as a general marauder.

Rats become uncommonly bold from impunity, but they are easily destroyed or driven away when the proper means for that purpose are adopted. There are various methods of taking or destroying these creatures:—the most effective of which will be detailed.

The weasel tribe pursue the rat as fiercely as the hare; but the rat, unlike "the poor timid hare," does not resign itself to its fate: it is interesting to see the small weasel attack a large rat. The latter will get away, if possible; but finding escape out of the question, it turns upon its invincible assailant and fights while it is able, crying out all the time. From the active motions of the rat in this contest, as well as from its evident superiority in strength, a spectator might suppose that the business must end in the defeat or destruction of the weasel: but, after a time, the efforts of the rat evidently grow languid, while the weasel may be perceived sticking like a leech, its teeth fast hold of the rat about the head or neck. The battle lasts no great length of time; for, when once the weasel has got hold, all the efforts of the rat are not sufficient to dislodge it.

The ferret, it is well known, is in general use for the destruction of rats, assisted by the terrier; and this was a kind of business or employment followed by numbers throughout the country. These professed rat catchers, however, have very greatly diminished in numbers, as well as in repute, since it was often found that premises which they had visited, and had been paid for clearing, were seldom long without a fresh colony. The fact is, the men thus employed were suspected of turning down rats upon the premises for the purpose of obtaining employment. But professed rat catchers are still to be met with, particularly in sea-port towns.

I quote the following from General Hanger, afterwards Lord Coleraine:—"When I was aide-camp to my most worthy patron, protector, and friend, Sir Henry Clinton, then commander in chief at New York, one day, at dinner, he told Colonel Phillips that the rats were so numerous in his quarters, that he had been forced to have the bottoms of the doors lined with tin, for that they had very nearly eaten through the door where he kept his papers; and he asked Colonel Phillips if he knew of any person who could destroy them. Colonel Phillips, who was a loyal American in our service, replied, that some years before the American war commenced, a rat catcher who had been transported from England, came and lived as gardener with him, at his estate at Phillipsbourg, about twenty odd miles from New York, and a very good gardener and good servant he was. Colonel Phillips was requested to enquire whether this man was to be found within our lines. In a few days he was found, and sent to head quarters. I attended him to see that he performed his duty:—seven wooden fall traps were made—such traps as are used to catch vermin alive. These traps are called hutch traps, fall traps, and box traps; they should be made two feet high, eight inches long, and of a proportionate height and breadth, with a door at each end, and a bridge in the middle with a trigger to it, which, when the trap is set for catching, holds both the doors up, by keeping the handles

of the doors close down to the top, by a string which is fastened to the opposite side, and which is fixed by a flat piece of wood to a notch in the trigger, when the trap is set for catching. These traps are to be set in the main runs, in which the rats constantly travel from one room or out-house to the others:—first preparing them after the following method. Purchase half a pint of oil of aniseed, and half a pint of oil of caraways; those are two cheap medicines; now comes a third, which is very dear, but then only a small quantity is necessary, a bottle as long as your finger being sufficient: it is oil of Rhodium. This will cost about ten shillings. Dab the trap on each side *within* well, with the oil of caraway and oil of aniseed, and with the tip of your finger dipped in the oil of Rhodium, in four or five places—it is enough, as the oil of Rhodium has a powerful smell. The food with which the traps are to be baited must be thus prepared:—grate a very dry loaf of bread so fine that the rats cannot carry any of it away with them; and to every double handful put about ten or twelve drops of oil of caraways, by a few drops at a time, rubbing the bread between your hands well, so as to impregnate the whole. You should taste the bread, and be guided by your taste not to make the bread taste too strong of the oil of caraways. It is a mistaken notion putting oil of aniseed into the food; it will make the food too strong, and they will not feed freely. *Oil of caraways, and oil of caraways only*, must be mixed in the food. The doors of the traps must be fastened firmly up, so that they cannot fall down; then for the two or three first days, lay a table spoonful, spread about very near each door of the traps, and by degrees, put the food further into the traps. After a few days, you must lay a table spoonful *on the bridge of the trap only*. After this method you are to proceed until you observe that the rats, frequenting the traps constantly, run and feed freely; dabbing the traps every day with the oils. This will take eight or ten days. When you are sure that they run and feed freely, after the house is quiet, and every one is gone to bed, you may tile the traps up and begin to catch, reserving one spare trap near you, to put down in the place of any one you may take up with rats in it. You must leave all the doors open, sit down very quietly and listen. The doors of the traps, when they fall down, make a considerable noise, which you will distinctly hear. When you hear one trap strike, you must be prepared with a canvas bag, with a large mouth to it, so as to admit one end of the trap; hold the bag under the trap, whilst another person tilts the trap, with the lower end open, perpendicularly, and shoots the rats into the bag, shaking the trap well, and striking the sides of it with your hand. Open the upper door by degrees, look well, with a light, into the trap, to see that every rat be shaken into the bag; then gather your hands round the mouth of the bag, swing it, and then strike it very hard against the wall or floor, so as effectually to kill every rat in it. In this you must be very particular, for in it lies the very strength of the art. If you let even so little as one rat escape, either out of the trap or the bag, you will not catch one more rat that night; and you must fasten the traps firmly up, and begin to feed them again,



which will take four or five days at least. I forgot to mention that when you hear the doors of one of the traps fall down, when you take it up you must carry another trap with you, and lay it down exactly in the same place, putting a little of the food on the bridge. The first night the man and myself (for I sat up the whole night) caught very near three hundred. On the following nights he caught a great many more, and continued until he had totally freed the house of them, and, I make no doubt many of the adjoining houses also.

“A few days before this man began to prepare to prepare to catch, I said to him, Mr. Addison, if you will honestly impart to me this secret, I will give you two guineas. I judged it prudent, at the same time, to give him a *gentle hint*, that if he deceived me, the strong hand of power was with me, and I should recommend him to the care of the provost marshal at the jail for one month. The man very honestly replied—‘Sir, take these three bottles of oils, and I will tell you also how to make the food. I will not for four or five days come near the house: you shall anoint the traps yourself, and feed them also.’ I did as he had instructed me for five days; in the afternoon he called and asked for me; we examined the traps, and he then determined to begin catching that night, without doing any thing himself previously to the traps. This convinced me of his honesty, and that he had imparted the real secret to me.”

Having given this great rat-catching secret in the late General Hanger's own words, I will add an observation or two in the way of elucidation. He speaks of the expense of the oil of Rhodium; it is a dear article, no doubt: but, having tried the experiment, I have no hesitation in asserting, that it is not essentially necessary; nor, in fact, could I perceive any difference when it was altogether omitted; and at the same time, it may be justly remarked, that a small quantity only of either the oil of aniseed or the oil of caraways should be used—sufficient merely to act as a pleasant perfume, and by no means to make the odour very strong; the rat possesses powerful olfactory organs, or very acute sense of smell, and, consequently, what would be scarcely recognizable by the human nose, would make a powerful impression upon the olfactory nerves of the rat. These oils merely attract the rats from a distance by their powerful smell, but it is the *deception*, after all, which constitutes the great secret. The rats are led on by degrees, and at length become confident from repeatedly feeding with security, and are thus completely deceived. It is, however, a singular fact, that if a single rat happens to escape, it will be some time before any of them can be induced to enter the trap again. The rat which has escaped has some mode of communicating the danger, and the whole colony take the alarm. The rat is both a very bold and a very cunning animal; but, aware, from hereditary instinct, that he is the object of general persecution, and, as if conscious of the varied and superior means which man employs for his destruction, he becomes the most suspicious animal in nature.

But General Hanger's process is rather tedious and irksome. At the same time it may be justly remarked, that, if rats are fed in the manner de-

scribed, they may be taken without having recourse to the use of the oils. However, the method is impracticable under many circumstances, and the reader will find in a subsequent page, a much more easy mode of accomplishing the object.

When rats become very numerous on board ships, and it is astonishing to what an extent they will carry their depredations, stoving is frequently employed, which is securing all the hatches, stopping all holes and crevices, and making the vessel airtight, as it were; it is then filled with the vapour of burnt brimstone, or burnt charcoal in stoves; the rats are thus unable to breathe, and, consequently, die.\*

On the return of the Valiant man-of-war from the Havanna, in the year 1766, the rats had increased to such a degree, that they destroyed a hundred weight of biscuit daily. The ship was at length smoked, and six large hampers were filled with the rats which had been thus killed.

As it is not at all likely that rats can be entirely extirpated in this kingdom, so those who are troubled with them must not suppose that by destroying them once they will be for ever rid of these troublesome and mischievous vermin. Houses or buildings situate in the country are very liable to be visited by rats on the approach of winter; as their food becoming scarce in the fields, they naturally enough follow the corn home, or approach human habitations in search of subsistence.

My residence is in the country, and I have periodical visits of rats, and adopt the following mode of ridding myself of these uninvited and unwelcome guests. They come at the end of autumn, or beginning of winter, and at first are very shy; however, finding themselves unmolested, they soon become bold, even to an impudent degree. As soon as I perceive they are reconciled to their quarters, and have made one or more regular runs, I procure a handful of newly-ground malt, with which I mix a handful of good sweet oatmeal, and an ounce or an ounce and a half of arsenic.† I make the whole into a dough with water, and then into pills about the size of a pea or horse-bean. These pills I drop or throw into their holes, in a *seemingly careless manner*, taking care thus to place them out of the reach of poultry, dogs, pigs, and, indeed, of every living thing but the rats. The rats never refuse it. It would appear to create thirst, as the animals leave their holes in search of water, and on these occasions seem incapable of much exertion; they will suffer a person to approach and kill them.

The secret, in this case, as in the other, is the deception, though in a different manner; in the first case, their suspicion subsides from feeding for some time in security, and they are thus deceived; in the second case, the pills appear as if they had dropped in their way by chance. If you put the pills upon a plate near the mouth of their holes, or in any other formal manner, it is ten to one if a rat

\* Bugs may be completely destroyed in the same manner.

† If too much arsenic is used it will produce vomiting, and the rat will recover.

will touch them; but when the rat finds them, as it were accidentally dropped into his hole, or his run, he will eat them very greedily.

The quantity of malt, oatmeal, and arsenic, which I have mentioned will make pills sufficient to destroy hundreds of rats. It may happen that all the rats are not killed; be this as it may, should any of them have escaped the pills, they will not fail to quit the premises; and, indeed, if constantly served in the same manner, it would appear that their visits would be less frequent; for some years, I had more visits than one from rats during twelve months; these visits afterwards became annual; and it is now two years since a rat was seen about my premises.

On one occasion, by way of experiment, I allowed the rats to remain unmolested for a considerable period. They made their way under all the floors about the premises; they bred most numerous—one very large female burrowed into the ground immediately underneath one of my wooden dog kennels, to which a pointer was generally chained, and there formed a nest. My colony of rats appeared very flourishing; and the animals grew audaciously bold from impunity. It is true, the cat killed a few of them; but they did not seem to take much alarm from this; and, in fact, the cat after being severely bitten, testified but little inclination to meddle further in the business, as if overfaced by the numbers and audacity of the rats. I have seen them towards evening, not only approach the door, but come into the kitchen, three or four at a time. They made their way through the floor of the pantry; they might be seen in the horses' mangers, claiming their share of oats; they ascended to the pigeon loft: and I prepared some pills. On the third day after the pills had been placed in their holes, not a living rat was to be seen about the premises! Every one of them, however, could not have been killed, as I had not used a sufficient number of pills—not, perhaps, for one half of them. This is the easiest method with which I am acquainted of getting rid of rats. It requires no preparatory feeding; I have tried it many times, both on my own premises, as well as on those of my neighbours, and never knew it to fail. Good sweet wheat flour, mixed with arsenic, will answer the purpose; but as newly-ground malt emits a very fragrant smell, of which rats seem to be fond, I think it preferable to wheat flour. But neither the one nor the other will answer the purpose unless placed as already directed, that is to say, *in a seeming careless manner*. At the same time, let it be duly impressed upon the mind, that it should be so placed that nothing can reach it but the rats. Mice may be destroyed in the same manner; but the pills should be made smaller.

Should there be one hundred rats about the premises, I firmly believe half that number of pills would be quite sufficient to clear them. There would not be a pill for each, it is true, but those which escaped the poison would not fail to take the alarm, and would immediately decamp—further, they will not very soon return. I never used more than fifty pills, I think, to the largest colony of rats I ever encountered. This is, as I have already observed, decidedly the easiest, the most

speedy, and the best way of getting rid of rats. If employed on board ships at sea, the rats, when some of their fellows are poisoned, cannot quit the vessel. This amounts to nothing, as a few pills can be placed as long as any rats remain alive, and they will not fail to take them. If malt be not procurable, sweet wheat flour, or sweet oatmeal will answer the purpose.

If a pill or two be wrapped or twisted in a bit of paper, and carelessly thrown in the way of the rats, they will rarely fail to be thus deceived. Mice also.

A very worthy friend of mine, (now no more) employed a professed rat catcher to clear his premises of these vermin, which the man accomplished, but in effecting this desirable object, he poisoned a pig, three pea fowls, and an old favourite wild duck.\*

The steel trap and wire cage are used for catching rats, but seldom with much effect. If one happens to be caught, you will rarely catch a second. I have known them successfully caught with the hutch trap, with various baits, but they should be fed for several preceding nights. If fish, for instance is used for the bait, fish should be placed repeatedly in the trap, securing it so that the doors cannot fall. When their suspicion is completely disarmed, they will feed freely, and may be caught in the same manner as described in the quotation from General Hanger.

A gentleman travelling through Mecklenberg, about forty years ago, was witness to a very singular circumstance in the post house at New Hargard. After dinner, the landlord placed on the floor a large dish of soup, and gave a loud whistle. Immediately there came into the room a mastiff, a fine Angora cat, an old raven, and a remarkably large rat, with a bell about its neck. They all four went to the dish, and, without disturbing each other, fed together; after which the dog, cat, and rat lay before the fire, while the raven hopped about the room. The landlord, after accounting for the familiarity which existed among these animals, informed his guest that the rat was the most useful of the four, for the noise he made had completely freed the house from his own fraternity.

If a rat be caught, and his skin singed so as to cause considerable pain, and he be turned into his hole again, he will make much lamentation, and the rest will forsake the place.

Rats are supposed by some to possess the faculty of foreseeing danger. It is said they will quit ships which are in a sinking state; and it is related, that a traveller, in passing an old mill, happening to pause for some purpose, observed a large rat come from the mill, approach the mill stream, looking up and down in all directions, as if to survey it. It returned into the mill, and in a

\* My friend resided at a short distance from an extensive marsh much frequented by wild ducks. He kept tame ducks, and was surprised one evening to observe a wild duck amongst them in the yard. The wild duck attached itself to a young drake, they paired, and bred regularly. It resigned its unlimited liberty for love, and became quite tame; it had continued four years in this state of domestication, when it was unfortunately poisoned by the rat catcher.

few seconds emerged again with a number of smaller ones, they all plunged into the stream, and were lost to the traveller's view; the mill fell down before he got out of sight!

Rats are so voracious, that there is scarcely anything which they will not devour; they have been known to attack human beings when confined in a dungeon, and to kill and devour them. It is very well known that when rats have been met in numbers, so far from giving way, have compelled the passenger to fly before them.

A gentleman of my acquaintance who resides in a neighbouring town, and who is extensively concerned in the wine and liquor trade, was, about sixteen years since, very much infested with rats. Upon his premises there was a kind of apartment, made of brick, arched, with a large aperture at the top. This was converted into a rat trap, by placing a small board in such a situation that when a rat reached the end of it, where the bait was fastened, the centre became overbalanced, and the rat was precipitated into the vault below. The board, disencumbered of the weight of the rat, righted again; and thus in one night, forty-three rats were caught. In the morning, when the vermin were observed, one of the servants, a son of the Sister Island, immediately volunteered his services to dispatch them. A ladder was placed for his descent which the man desired might be drawn up the moment he reached the bottom. He had armed himself with a shillalah, and descended with the utmost alacrity, quite pleased with the business he had undertaken: the rats in the mean time had gathered themselves together at one end of the place. The ladder was drawn up; but no sooner did the poor fellow move one step towards the rats, than, setting up their backs and squeaking loudly, they flew at him with the utmost fury. The man was almost petrified with alarm; he was deprived of the power of using his cudgel, and those above lost no time in getting him out of the place. He was speechless for a short period; the poor fellow was killed a few weeks afterwards by a fall from an upper story; but during the short time which elapsed, he did not recover from the effects of the fright—such an effect had it made upon his mind! A terrier bitch was lowered into the vault, and the rats did not fail to attack her as soon as she approached them. She went to work, however, and killed the whole ultimately; but such labour did it appear, that she paused, and even lay down for a few seconds, as if for wind, before she had completed the business.

Notwithstanding the fierceness and courage of the rat, when he becomes captive he loses his spirit. Men are occasionally seen with a number of rats in a wire cage, into which they will unceremoniously put their hands, and take hold of the rats with impunity. It has been supposed there is some secret in this, and so there is; it is the following, the man puts his hand into the cage with confident firmness; the rats have lost their spirits with their liberty, and make no attempt to bite. However, should a person attempt the same manoeuvre in a hesitating or timid manner, the rats will resume courage from such timidity, and will not fail to seize his hand.

If when a rat is at large, he be seized firmly with

the hand, and grasped very strongly, he will not bite—in fact, he is thus deprived of the power.

Rats are numerous in London, and as their retreats are for the most part under ground, in the sewers, large and small, they are not easily destroyed—or, at least, they would be very difficult to exterminate. Some few years since, several criminals made their escape from one of the prisons in London, by contriving to get down into one of the main sewers,\* which emptied itself into the Thames. After they had pursued their subterranean route for some little time, their progress was opposed by rats, which appeared in such numbers, and attacked the culprits so fiercely, that they cried for help, and were at length taken up through one of the gratings, and conveyed back to prison.

“Some few years ago, an old man in the province of Scania (Sweden) proceeded alone in the winter season to fetch home some hay, which was stacked in a morass at some distance from his residence. In this, however, a great number of rats had taken up their abode, and had so excavated it, that when the poor fellow mounted to the top, he sunk down headlong into the middle of the stack, from whence he was unable to extricate himself. Two day afterwards he was found dead, and devoured to the very bones by these destructive creatures.”

#### KIRKALDY AGRICULTURAL ASSOCIATION.

[If our space would enable us to act in compliance with our wishes, we would give this report in full. Such not being the case we trust that the omission will be ascribed to the right cause.—ED. F. M.]

After the exhibition about 150 gentlemen friendly to the object of the association sat down to an excellent dinner provided in the Town Hall. The chair was occupied by Lord Rothes, who was supported on his right by P. B. Ainslie, Esq.,—Moubray, Esq., Rev. Mr. Murray, who said grace and returned thanks, Provost Landale, &c., and on the left by J. B. Fernie, Esq., of Kilmux, Mr. Tullis, Blebo &c. The croUPIERS were Mr. Henry Fergus, Links, Mr. Ballingal of Treaton, and Mr. Russell of Coul.

After the cloth was removed the following toasts were successively given from the chair, and enthusiastically responded to. The King—Tune, God save the King. The Queen—Tune, Juliana. The Princess Victoria and the rest of the Royal Family—Tune, The Lass o' Richmond Hill. The Army and Navy—Tune, Rule Britannia. The Kirkaldy Agricultural Society, and prosperity to it—(Drunk with all the honours, and one cheer more)—Tune, Lea Rigg. The President of the Society, Robert Ferguson, Esq., of Raith—Tune, Rendezvous. The Judges, who had that day so ably acquitted themselves—Tune, A man's a man for a' that.

Mr. Fernie of Kilmux, as one of the Judges, felt bound to acknowledge the compliment, and in the name of his brethren and of himself to return their best thanks for the mark of respect shown them. He was bound to say, however, that their duties had been

\* The main sewers are, I believe, sufficiently large for a man to stand upright, or nearly so.

comparatively easy, in consequence of the excellent arrangements on the part of their secretary and standing committee. The general appearance of the stock, notwithstanding the pressure of the times, was indeed most gratifying. He trusted that in awarding the prizes they had acquitted themselves to the satisfaction of all—they had, at any rate, he felt entitled to say, given their best attention to the subject, and acted with the strictest impartiality. (*Cheers.*)

The CLERK here read over a list of the subjects for which prizes had been awarded, and the names of the successful competitors.

The CHAIRMAN begged to propose, for the approbation of the company, the health of a gentleman whose name, he was sure in that assembly, required to be coupled with no eulogy of his—known and appreciated as his services were to the whole of them. He alluded to their excellent Secretary, Mr. Hutchison. (Mr. Hutchison's health was received with marked enthusiasm.)

Mr. HUTCHINSON said that he had certainly been most unexpectedly called to his feet. He begged to thank them, which he assured them he did most sincerely, for the great compliment they had paid him. He had always felt the deepest interest in their institution; and whatever tended to its prosperity, he could unaffectedly say was to him a source of much individual happiness. Having said this much he trusted that gentlemen would not be backward in the introduction of professional subjects. Agricultural improvement was naturally slow of travelling, farmers were entitled to hesitate before they embarked in expensive experiments, and it ought no doubt to be one of the great objects of such meetings as the present not only to combine the scattered rays of knowledge but to canvass freely the different opinions held on subjects not yet brought to the test of general experience. There were many subjects which had strong claims upon their attention, as the Chevalier barley and the Hopetoun oats—the discoverer of the latter, Mr. Sheriff of Mungoswells he was happy to have it in his power to say was present among them. (*Loud cheering.*) Again there was the subject of the Italian rye grass, a plant which few of them had as yet tried, but from which great advantages he thought might justly be anticipated. Another subject which he thought richly merited their attention was the selection of proper specimens of turnips from which to raise seed, a circumstance which if duly attended to by farmers, in place of the hap-hazard way they proceeded at present, depending for their supplies from general seed-dealers, he felt assured would make a difference in the value of the crops of many of them, of some 4*l.* an acre. He had taken it upon him to throw out these hints in the hope that some of the gentlemen present might be induced to enter upon the discussion of some of the topics he had referred to. If they did not, so much did he feel the importance of giving a practical turn to their proceedings, that however inadequate, he himself would venture to embark in it. (*Loud cheering.*) Meantime he begged to propose the health of a gentleman for whom they all entertained great respect and felt deeply indebted to—so much so that one of their number (Mr. Davidson) was understood to be ready to subscribe 500*l.* to build a monument to him. (*Great laughter.*) He need not say that he meant Mr. Sheriff of Mungoswells, the introducer, if not the actual discoverer of the Hopetoun oat. (*Drunk with enthusiastic cheering.*)

Mr. SHERIFF believed that there was not a farmer in the whole world who would not be proud to receive a compliment from such a meeting as the present; but to him, who had no individual claims upon

them, it was indeed most gratifying. He begged to tender them a thousand thanks.

Mr. J. PRENTICE next proposed "The successful candidates." (*Drank with all the honours.*)

Mr. DAVIDSON returned thanks.

The unsuccessful candidates were next toasted.

Mr. R. STOCKS rose to propose "The health of Lord Loughborough, the Vice-President of the Society, and the Members of the Committee."

Mr. James RUSSELL, Coul, returned thanks.

Mr. R. BALLINGALL, Treaton, claimed a bumper to the health of their noble chairman, Lord Rothes—a nobleman who resided among them in his native county, and devoted no small portion of his energies to agricultural improvements. (His Lordship's health was drank with great applause.)

Lord ROTHEs said, that although he was as yet but a young and inexperienced agriculturist, he assured them he took great interest in rural pursuits, and was particularly delighted in having the honour to belong to the Kirkcaldy Agricultural Society, of which, from the specimens already afforded of its infantile prowess, the most magnificent hopes might justly be entertained of its adult maturity. (*Cheers.*)

Mr. HUTCHISON rose to propose that they should toast the Landlords of Fife. He need not say that the Fife lairds were a highly respectable and influential class of individuals, and one whose interests were in many respects identified with those of the Fife farmers. He thought, however, that on such occasions as the present, it had been too much the custom to turn forward only the bright side of the picture, and entirely to overlook, if not to cover up, those parts which were more darkly shaded. Such a mode of procedure, he need not to say, was injurious to the landlords themselves. It tended to confirm them in their prejudices, in place of affording them the means, as an impartially drawn picture would do, of rectifying their errors. (*Cheers.*) He verily believed that there was not a landlord in Fife, nor any where else, who did not think himself a good landlord, and who was not generally found ready to rise up and say, that his invariable maxim was to live and to let live, although, notwithstanding, his tenant judging not from words but practice, might come to a very different conclusion. (*Great cheering and laughter.*) There were no doubt, on the other hand, cases the reverse of this where the landlords were less prone to boast of their good deeds than to perform them, and where they had generously come forward and agreed to commute their money into grain rents. (*Cheers.*) Did he condemn the individuals who refused to depart from their bargains? No; he condemned the system which placed the tenants at their mercy. He was not one of those who advocated partial reductions of rent; such reductions were generally inadequate, and the system had proved the curse of the tenantry. What was the fact—had it not encouraged men to come forward and make offers for farms—ay, such offers as they knew very well they had no rational prospect of fulfilling, but they trusted, forsooth, to the clemency of the landlord. (*Hear, hear.*) Such a system could not be too strongly condemned and reprobated. (*Cheers.*) It was entirely destructive of the independence of the tenantry, and, if persisted in, could not but prove fatal to the dignity—nay, the respectability—of the agricultural profession. It was, moreover, highly injurious to the good relationship which, it was exceedingly desirable, should always exist between landlord and tenant—the former, in respect to the latter, sunk his right of choice in the indulgence of a mercenary spirit far too short-sighted to prove otherwise than ultimately highly disadvan-

tageous even to his pecuniary interests. Was it to be expected in such a case that the parties would long remain on a good footing with each other? The thing was impossible; for each having indulged in false hopes, mutual disappointment and personal dislike became the inevitable result. Here, then, was the root of much evil, but how was it to be remedied? He would say, let the landlord learn to know the value of his land—let him fix his rent as a merchant fixes the selling price of his goods, and wait the arrival of a respectable customer. (*Cheers.*) He knew that many landlords already acted upon the principle he had indicated, and he would say long may they continue to do so, as he felt firmly convinced that it was only by some such plan that a respectable tenantry and a proper system of agriculture could be maintained. But when he spoke of the landlord fixing his rent and choosing his tenant, he meant that all this should be done in a fair and liberal spirit. He did not certainly intend that the laird should screw up the darling object of his choice to a rack rent. (*Laughter.*) Before he sat down he might be permitted to notice one example of liberality on the part of a landlord which, he had no doubt, would afford them much pleasure. Lord Murray had that day presented to their society, through the hands of Mr. Ainslie, a donation of twenty pounds. He did not value the money so much as the spirit in which it was bestowed. With their leave, he would, therefore, join with “The Landlords of Fife the name of Lord Murray.” (*Drunk with enthusiasm.*) Tune—Garb of Old Gaul.

Mr. AINSLIE felt himself unexpectedly called upon to return thanks in the name of his noble relative and the Landlords of Fife—he said unexpectedly, as he was not at all aware, nor did he expect, that the donation he had handed to their Secretary in the forenoon, in the name of Lord Murray, would have been adverted to. He might be permitted, however, to avail himself of the opportunity thus afforded to make one or two remarks by way of reply to the speech of their worthy Secretary. That gentleman had told the landlords well of their duty, and to act kindly to and encourage their tenantry. Such kindness, however, he looked upon as by no means disinterested, as he held that it was utterly impossible to separate the interests of landlord and tenant, which were indeed as closely combined as any two interests could well be. He would say, indeed, that the landlord who was not kind and indulgent to his tenantry committed suicide on his own interests and happiness. (*Cheers.*) He felt pleasure in observing the manner in which allusions to the new practice of grain rents had been received by the company, and he felt confident that no one who reflected at all on the subject, but must admit that the principle involved in it was the fair and honourable one. It was, indeed, the only tenable principle—that of *mutual advantage*, which constituted, he would say, the backbone of agricultural as well as commercial transactions. What were the relations between landlord and tenant? The one bestowed his capital and industry, and the other his land; and was it to be supposed that the former was not entitled to live without abject dependence upon the latter—nay, he was entitled to much more—he would say that he was entitled, not only to enjoy a state of moral independence, but to thrive and become rich. (*Cheers.*) He would repeat that grain rents constituted the only common sense system, because if the one party prospered the other shared in the advantage, while, on the other hand, when there was loss it was but fair that both should participate in the suffering.

Mr. FERNIE of Kilmuch said, that a toast had been

shortly before put into his hands, in the introduction of which he could scarcely expect to be able to do justice. It was the Farmers of Fife, and the cause of Agricultural improvement. Being a farmer himself he was certainly entitled to speak of that class, nor was there anything in his relationship to prevent him from telling his mind as others had done, as to what he thought of the duties of a landlord. (*Hear, hear.*) He knew well that the tenants had performed their duties to the letter. They had a great deal to struggle against. The manufacturer when hard pressed generally was enabled to bring machinery to his aid, but this was impossible with the farmer, who, nevertheless, had done every thing he could, he felt assured, to meet his obligations, as he had done a great deal in improving the aspect and increasing the crops of the country. It was an acknowledged fact that the agriculture of Scotland surpassed that of every other country in the world. He himself in observing the agriculture of other nations had seen abundant evidence of it. Now he would like to know to what this superiority was owing but to the greater capital, skill, and energy of the tenantry. It was painful, however, to think of the sufferings of this meritorious class, and he trusted he might anticipate with Professor Nichol the speedy arrival of a time when the term agricultural distress would be again unknown. (*Cheers.*)

P. B. AINSLIE, Esq., rose to propose “The Commercial and Manufacturing Interests of the County.” They had already drunk to the prosperity of Agriculture, and to that most important element of it, the Tenantry, and they had already heard the sentiments of Mr. Fernie as to the superiority of our agriculture over that of other countries, and how much that superiority was owing to the skill and ability of the Scotch farmer—sentiments in which he most cordially agreed. There was another interest, however, to which he was going to call their attention, and situated as he then was among intelligent and liberal-minded men, he would fearlessly say that it was not inferior in importance to that of agriculture itself, or any other interest whatever. (*Hear, hear.*) He stood before them as a British merchant of thirty years' standing. Until within the last twenty years the commerce of Great Britain has been comparatively insignificant. Now, however, our manufacturing and commercial system had risen to vast magnitude. (*Loud cheers.*) We had become the emporium of the world, and exchanged the products of our industry and enterprise with those of almost every nation under the sun. It therefore appeared to him worse than folly on the part of agriculturists to endeavour to undervalue the immense importance of our commercial greatness. Indeed commerce was the handmaid of agricultural prosperity; and he had no hesitation in saying, that every improvement which took place in manufactures or commerce was a positive gain to the agriculturist; as, on the other hand, every discovery in agriculture, by increasing and cheapening the necessities of life, became an immense boon to the commercialist and manufacturer. (*Cheers.*) He would say, then, that the three great interests of this country—the commercial, the manufacturing, and the agricultural—were indissolubly united; and that no misfortune could overtake the one without being felt by the others. To go minutely into the grounds of this opinion, however, would lead him further than at present might be expedient. (*Cries of “No, no!”*) Did they want, then, an exemplification of the important relationship in which commerce stood to agriculture, he would refer them to the example of this very town. Within the space of a mile and a half around where they sat there

might be congregated together a population of some twenty thousand human beings, immediately dependent on commerce and manufactures for their daily means of support. Now, supposing that each of these consumers of agricultural produce, taking the estimate of the Edinburgh Review, the value of 8*l.* annually, here they had a market provided by the town of Kirkcaldy alone, at the very doors of the Fifeshire farmers, which afforded them customers for an amount of agricultural produce, equalling in value 160,000*l.* per annum. But suppose that by any means the purchasing power of Kirkcaldy could be augmented to 200,000*l.* annually, was it not clear that the agriculturists would participate in the advantage? (*Cheers.*) He would now repeat that in his judgment the interests of agriculture could not be dis severed from those of commerce; and it argued either weak heads or bad hearts on the part of those who would say any thing else.—The toast was drank with loud and prolonged cheering.

Mr. WILLIAM MILLIE had listened with intense delight to the prodigiously luminous speech of the gentleman who had just sat down, and, as a manufacturer, felt called upon to respond to it. As to agricultural distress, he could boast that he knew a little of farming. He had spent part of his youth with a worthy grandfather, who used to say to him, "Be aye stepping about and looking on, Willie, lad; and nae doubt but by and bye you'll learn." (*Great laughter.*) Now, although he had not altogether neglected his worthy relative's injunction, there was one part of the science which he confessed he had not yet learned, and that was how to make money by farming. (*Cheers and laughter.*) He need, therefore, scarcely add, that his wonderment was less at the farmers complaining of exorbitant rents, than at how the deuce they managed to pay any rent at all. (*Laughter.*) But a great many means had been suggested for the relief of agriculture, and, among the rest, a committee of the House of Commons had been appointed to inquire into the subject. That committee consisted of twenty-five Englishmen, four Irishmen, and four Scotchmen; and this he took to be a great compliment to the Scotch and Irish—the Parliamentary estimate obviously being that any four of them were equivalent, in point of work, to no fewer than five-and-twenty John Bulls. (*Cheers and laughter.*) Among the rest of the conjunctures on agricultural distress, there had been a great deal of talk about the currency. Now, so far as he could divine, *the currency and the comet were about equally related to the subject*, and he confessed both to be much beyond the reach of his mental powers to grapple with. What he really believed to be the cause of the depressed condition of agriculture was simply this,—that somehow or other *the supply of produce had become more than equivalent to the demand for it*; and, although the landed interest might, perhaps, at present be envying the situation of the manufacturer, he could assure them that the latter from a like cause had often his seasons of difficulty. He was not inclined to say much more on the subject, for, like a worthy clergyman, he held it be good policy always to leave off while his hearers yet retained an appetite for his discourse. (*Laughter.*) He might mention, however, a circumstance which would seem to indicate that there was at least one branch of agriculture now beginning to pay better. When in Cupar market yesterday, he had seen a gentleman who had sold four cattle for sixty pounds, which in April had been purchased for twenty-five pounds. Now, he would beg of them to contrast this with last year, when they were devilish glad to get back, after feeding the animals for some three or four

months, the same price which they paid for them. Nay, he himself had purchased a lot, and netted exactly a guinea of loss upon the head of them. (*Laughter.*)

Mr. HUTCHINSON said, that as he understood that Mr. FERNIE, of Kilmux, had experience of the Italian rye-grass, he should like much to be favoured with that gentleman's observations on the subject.

Mr. FERNIE said, that he scarcely felt justified on entering upon the question at the spur of the moment, he had much rather write upon it. Upon the whole he certainly entertained a favourable opinion of the Italian rye-grass, and thought it would prove a great acquisition to those who kept sheep. He had sown out three acres giving to each six pecks of seed. He conceived it was apt to grow rather thin, and would recommend two bushels of seed instead of six pecks. His crop did not seed well, and it was a grass he considered which was very apt to shake, and therefore which required to be cut early. His was rather neglected, he being from home on permanent duty at the time. (*Laughter.*)

Mr. HUTCHINSON, from his small experience, entertained very high hopes of the Italian rye-grass. The plant with him soon distinguished itself over the common sort by its greater greenness and freshness, and so marked was this, that during winter the difference might be perceived at a mile of distance. Mr. Moon, who was with him in February, pulled a handful of this grass which measured from his wrist to the points of his fingers, while the common sort did not exceed the length of his little finger. Where the two grasses were sown with clover—in the one case he saw nothing but clover, and in the other nothing but Italian rye-grass.

Mr. SANG.—As they had just been engaged in discussing the merits of the Italian rye-grass, he would state to them that three years ago he sowed a pound and a half of it. It was then uncommon, and he had from it a crop of seed by the end of June. After that he allowed the stubble again to rise, and he had another crop the same year. The year following he had two crops, and this year it appeared to him to promise nearly as well, only he thought that it was somewhat thinner, and perhaps from the readiness of the plant to shed its seed, the spaces were even to a considerable extent filled up with young plants. He (Mr. S.) considered the Italian rye-grass as one of the best and sweetest grasses which had yet been introduced. He suspected that Mr. Fernie's soil may have proved too strong for it, as it seemed to require soft and easy land. He had plenty of Italian rye-grass seed for sale—(*hear, hear*)—but he was going to say that his seed was much inferior to a sample he had seen that day in the hands of Mr. Davidson, of Burtisland, which, in point of quality he did not believe was surpassed by any seed in Great Britain. He thought that the quality of the seed was of still greater consequence than the quantity sown per acre.

Mr. FERNIE agreed with Mr. Sang, that the plant in question had a tendency to grow rather thin—to length rather than to branch off so as to give a body and thickness to the crop. He thought that in order to be used with advantage, the seed ought to be mixed with the common sort. The field on which he sowed the six pecks per acre consisted of a soft rich soil. He had, however, sown some of the same grass this year on a portion of his very worst land, so that his experience would shortly include the two extremes in that respect.

Mr. R. STROCKS rose to propose the health of Mr. Ainslie. As an example, shewing how much agriculture was indebted to commerce, he would instance

land in the neighbourhood of Kirkcaldy that now gave 41. and 51. of rent, but which in his younger days yielded nothing but birds' nests. (*Laughter.*)

Mr. JOHN HAIG had been entrusted with a toast to propose. It was the Highland and Agricultural Society of Scotland, and the sister societies of the county of Fife. The Highland Society was a society such as he verily believed no country in the world but Scotland could produce. There was no similar society in England. Aye, to be sure they had lately got up their grand Central Agricultural Association—(*laughter*)—an association which aspired to be a board of control over the government. (*Cries of "No, no," and "Yes, yes."*) It was an association which had drawn its first breath in politics—an atmosphere poisonous to the existence of such an institution, and whose mortal remains would ere long be consigned to the grave. (*Habbub.*) But it had been the wise practice of the Highland and Agricultural Society never to interfere—never once to touch upon politics—the under currents of which had been entirely left by it to contend for mastery among themselves. Its grand and beneficent object was simply those magnificent results which flow from the improvement of the soil of our native land. Into that soil it had struck its roots, and sent forth its buds and branches, giving noble indications of fruit many days hence. (*Cheers.*) He could talk for an hour on the subject of the Highland and Agricultural Association. (*Cheers and laughter.*) But he would not venture to intrude so long upon their time. (*Cheers.*) They had that night already heard of the beautiful union which existed between agriculture and commerce. They had heard the glorious and philanthropic sentiments of Mr. Ainslie in words so divine, that it seemed as if they actually proceeded from the other world. (*Immense laughter.*) He would say that Mr. Ainslie's opinions smacked strongly of the liberality of the south. (*Cheers.*) Our agriculture was comparatively unfettered. *We had no local taxes, no county rates, no tithes.* It seemed, therefore, that our agricultural system was less involved and more simple in its nature than that of our southern neighbours. All the burdens he had just adverted to, *by the wisdom of our forefathers, had already been wisely turned over, not upon the landlords, but upon the land.* The whole question of agricultural distress with us, then, *resolved itself into an affair of rent.* (*Cheers.*) The increasing practice of adopting grain rents would no doubt prove so far salutary; but let it not be supposed that it was enough merely to have grain rents. It was possible for landlords to drive too hard bargains even with these. They must not only have grain rents, but *grain rents on a fair and moderate footing.* (*Loud cheering.*)

At eight o'clock, when we left, the card of toasts was still unexhausted, the ranks of the company little thinned, and the current of eloquence flowing strongly onwards.

## ON THE APPLICATION OF THE POINTS BY WHICH CATTLE ARE JUDGED, TO THE FIFE BREEDS, &c.

BY MR. JAMES DICKSON, CATTLE-DEALER, EDINBURGH.

(From the Quarterly Journal of Agriculture.)

The ordinary breed of cattle in Fife is called "Fifehire Runts." The old celebrated breed is called the "Falkland" breed. Falkland used to be the favourite hunting seat of the kings of Scotland, and in that neighbourhood the stock used at the royal table were kept. It is said that the Falkland

breed derived its origin from the Devon, Sussex, or Hereford cattle, some of which had been imported into Scotland by royal command. Be the origin what it may, it is not unlike those breeds in form and character. The Fife Runts have a rather ragged outline, the line of the back being below the level line, and not straight, the general symmetry not being equal to that of the Angus or many of the northern breeds. The legs are rather long, and bone coarse; the hair is smooth, and the skin handles rather hard; the horns are long, flat, and thick; the features of the face are strongly marked, and in expression rather dull. Their general appearance is opposite to gaiety. As might be expected, after this description, they have not an aptitude to fatten at an early age; but, when aged, from three to five years, they feed to great substance and heavy weights. They are useful for ship beef. This description applies to the presently prevailing Fife-shire breed, but the old breed which is now uncommon in that county, is of a much finer description. They are finer handlers, have finer bone, more gay in their appearance, having the horns long and sharper pointed; more beautiful symmetry, better quality of beef, and greater aptitude to fatten than the present breeds. When aged, the common breeds feed to great weights, but it would be of no use to attempt to feed them when young, as they are deficient of quality and aptitude to fatten. Some of the very heaviest cattle bred in Scotland are bred in Fife-shire; but I must say they want many good points to make them profitable cutters to the retail butchers. They are much better suited to the shipping butcher. In the fat markets at Cupar in spring, I have seen many large lots of well fed cattle, but quality and symmetry are not to be looked for in the common Fife breeds. The butchers, however, are seldom deceived by them, as they are general good weighers.

The cattle of Kinross-shire is much the same as those in Fife, and so are some in Clackmannanshire. Many of them in those counties are fed at distilleries, such as by the Messrs Yong at Burntisland, Mr Stein of Killbeggie, Mr Moubray of Cambus, and others. The refuse from the malt distilleries has not the feeding properties of that from raw grain. The saccharine matter in the grain is almost wholly extracted by the process of malting; but the processes of the distiller, however ingenious, cannot extract the whole nutritious matter from raw grain. This great difference in the nature of distillery refuse make a similar difference in the quality of the beef fed on it. Malted refuse renders the beef and tallow soft, and unlike to well fed beef; whereas the refuse from raw grain fattens as well as Swedish turnips, both as to weight, fatness, firmness, and quality. Hence, at the latter distilleries, stakes for tying up cattle to feed let much higher than at the former. Fine beasts are thus fed by Messrs Haig at Lochrin distillery, near Edinburgh.

On comparing the old or Falkland breed of Fife with the present breeds which cover that county, its superiority is very apparent; and its character was well exemplified by the large ox which was shewn by Mr Bruce of Kennett, and which gained the premium for the best ox exhibiting the greatest weight, symmetry, and fatness, at the Highland Societies Show at Stirling in 1833. Negligence or oversight alone in the breeders of Fife must have deprived them of the good old breed for the present inferior race of cattle. It is satisfactory, however, to observe that they have become sensible of their error, for now breeding stock of the old breed are increasing in the hands of many breeders in various parts of the country. Colonel Lindsay of Colcarres, Mr Russel

of Balwhargh, Mr Fernie of Kilmux, Mr Thompson of Pusk, and other spirited farmers, have now breeding stock which realise good prices.

Good as certainly the old breed of cattle in Fife is, still the lower portions of that county are admirably adapted for the rearing of short-horns, which are indubitably a superior breed of cattle to either of the Fife breeds. It is not easy to account for the aversion to short-horns, which most of the breeders in Fife have no hesitation in evincing. Had this aversion arisen from a disappointed experience in short-horns, there would be some reasonable ground for maintaining it; but when it is well known that good thorough bred short-horns have never yet got fair play in that county, I cannot but choose to ascribe that aversion to prejudice. Some breeders no doubt have tried what have been designated short-horn cattle; but most of them which I have seen in Fife have only the name of that breed, but do not possess its characteristic properties.

TO THE WEST HIGHLAND BREED.—With the exception of the aboriginal breed of cattle, a few of which polled, and of a dingy white colour, are still to be seen in the park of the Duke of Hamilton at Cadzow, the West Highland or Kylee breed is the oldest in Scotland. Its primitive site was probably in the Hebrides in the Isle of Skye, where it had long been kept from intermixture with the breeds of the mainland, by the independent position which the chiefs of the Hebrides affected to maintain against the kings of Scotland and Norway. Be that as it may, the purest Kylee blood is to be seen in the Isle of Skye to this day; not that it is in Skye that the largest of the breed is found, for the richer pastures of Ross, and Perth, and Argyllshires have promoted its growth to a considerable size; but, when any breed of kindred blood is desired to be improved, the smaller and purer race of Skye is always resorted to for the purpose of improvement. It is pleasing to observe the desire for retaining the blood pure so universal among the breeders of West Highlanders. Besides the qualities of the bull, great attention is paid in selecting fine cows, which will hardly be parted with at any price so long as they are capable of vigorous reproduction.

The character and properties of West Highland cattle are much to be admired. The back is straight and level, the carcass deep, with the brisket well forward, and wide, and the buttocks well filled up. The top of the back is broad, and its breadth is preserved from the rump to the top of the shoulder. The legs are short, with a strong broad fine bone. The muzzle is fine, with the nose a little turned up, the eye full and sparkling, the ears thin, broad, and hairy, and pricked, and the head surmounted with wide-set, fine long tapering sharp-pointed white horns, gaily set off at the points, the tips being black. The coat is shaggy, with long fine soft hair, not the least curled, and the top of the head, mane, dewlap and tail-end ornamented with the same kind of long hair. Colours are black, sometimes red, dun, and brindled, all of a rich hue. The skin is mellow, and the touch kindly. They have great aptitude to fatten at an early age, laying the beef, which is of the finest quality, on the most valuable points. Taking them all in all no breed which I have yet noticed approaches in character and properties so near the short-horns as the West Highlanders. The climate of that part of the country which they inhabit is not cold, but wet and boisterous; and, as a suitable protection against the elements, their shaggy coats are well adapted. They are first-rate grazers, feeding on grass with great rapidity on their native pastures, and, when they are brought into the arable

districts, they thrive equally well on turnips. The usual weight which they attain, when fat, is from thirty to fifty stones, according to the size of the particular variety, for there are several varieties of them among the Western Isles. These varieties also exist as breeding stocks in Argyll, Perth, Stirling, Dumbarton, Ross, Inverness, and Sutherland shires. In every situation they are the finest *native* breed of cattle in Great Britain; for a combination of quality of beef, aptitude to fatten, and purity of blood. Should they be fed on from the time they are dropped, they could be disposed of in fine fat condition at three years' old, at from forty to fifty stones.

According to the present system of farming in the Western Isles, the pastures are overstocked in summer, and the young cattle are starved in winter. Could this system be altered, so as always to be increasing the condition of the cattle, the breeders would very much serve their own pecuniary interest, and promote the health and comfort of their cattle. Thousands of these cattle are presented to market every year, and fed and slaughtered in every part of Scotland and England, to the southward of their native latitude. They are generally presented in lean condition; but would the breeder relinquish the overstocking system, they would, on the whole, draw more money than they do, and command at all times a ready market; for purchasers will be found for such fine cattle in the worst of times, when the coarser and larger breeds would be neglected. When fat they are beautiful cutters up for the retail butchers, and are excellent for summer killing, and profitable for family use. The beef always fetches the highest price per stone in the markets.

I may mention the names of some eminent breeders of West Highlanders. Mr. M'Donald once had fine specimens on the far-famed Island of Staffa, the interesting resort of summer visitants: as also his late father, Mr. Colin Macdonald of Boisdale in South Uist. In 1812 and 1815 Staffa sold his three years old at Dumbarton at thirteen and fourteen guineas a-piece. Having kept a score of his three years old, he sold them in 1814, when four years old, at Dumbarton, to Mr. Wilson, factor to the Duke of Hamilton, for twenty guineas each. At this time Staffa kept from eighty to a hundred breeding cows. In 1815 he sold a bull for 130 guineas, for which he refused two years before 200 guineas; and about the same time he received 100 guineas for another bull. These prices certainly indicate that Staffa's stock were of a very superior description, and that he must be classed amongst the most eminent breeders of West Highlanders. The late Mr. Mackinnon of Corryhattan in Skye, had a large and fine breeding stock of the true Skye breed; and his stock was often resorted to as a source from which a supply of superior bulls and breeding stock could at any time be obtained, and always realised high prices. The late Mr. Macdougall of Macdougall and Lorne, and the late Captain Macdougall of Kerrera, were good breeders. Colonel Campbell of Knock in Mull has also a good stock. Colonel Maclean of Coll, Mr. Donald Campbell, late of Auchnacraig, and Mr. Stewart of Auchnashannig, all possess good stock. On the Island of Islay the Kylees are particularly large. Mr. Campbell of Islay is a great improver and breeder, and one of the most spirited and liberal landlords in Scotland. It would be well for Scotland were all landlords similarly disposed. His stock of cows is very extensive, and of a superior cast. He has sold bulls at great prices, from 100 to 200 guineas a-piece. The colours of his cattle are mostly red and dun. In this island Captain Walter Campbell of Sunderland, and Mrs. Campbell of



Balmachie, each kept about 100 breeding cows. Mr. M'Neil of Losset is also an extensive breeder. The pastures of Islay are fine, and, from its mild climate, the island is called "fertile Islay." Mr. Campbell, the proprietor of the Island of Jura, which is more barren than Islay, is an extensive breeder. He will sometimes show from 80 to 100 four-year olds at one time. On the islands of Colonsay and Oransay, lying on the north and west sides of Jura and Islay, Mr. M'Neil, the proprietor, is an extensive breeder, the most extensive, I believe, in the Western Highlands, having from 150 to 200 breeding cows, from which he shews some excellent lots of cattle. On the island of Giha, betwixt Islay and Cantire, some first-rate Kyloes were bred by Mr. M'Neil, the late proprietor, who shewed at Dumbarton fairs one of the best lots from that quarter. There are good lots bred in the small islands of Scarba, Luin, Suel, Shuna, and on the mainland in Argyll, in Cantire, Knapdale and Lorne. Mr. Malcolm of Pottaloch, in Knapdale, on the Crinan Canal, has a very superior stock. I have seen his stock of beautiful cows, above 100 in number, and also sixty three years old oxen, very fine fat, about forty-five stones each, which had been wintered on hay and grass, without turnips. They were sold at Dumbarton fair, in the June following, at 14*l* a-piece, when they had evidently lost condition during the winter. The summer grazing of the West Highlanders is much superior to their winter keeping. I have seldom seen so fine a lot as these were, in the August I saw them, when they were grazing in a grass field of about eighty acres. On this gentleman's property are 1000 acres of improved land, which must have incurred great expense to bring into cultivation. Several hundred acres had been reclaimed from the common moss, which now carry as fine pasturage as perhaps any where in Scotland. The farms and cattle in Mr. Malcolm's own hands are managed in a very superior manner. I observed a very fine lot of four years old oxen wintering in the wood of Bunaw, belonging to the Bunaw Company in Argyllshire. Frost continues but a short time, and but little snow falls in this part of the country. Rain, particularly in autumn, is the principal atmospherical infliction, and against such the shaggy coats of the Kyloes are an admirable defence. The aged cattle are almost all wintered in the fields and woods, and in January I have observed them grazing in the Island of Mull, as if it had been in summer; and what appeared extraordinary to me was to see them feeding within water mark of the tide, on sea-ware. They are extremely fond of a particular species of sea-ware, which is said to be of benefit to them in winter. The pasture on some of these islands, particularly the Strishnish Islands, is as fine as that in gentlemen's lawns around their mansions, and it continues green all the year round, the snow lying but a few hours at a time, and the temperature always favourable to vegetation. Colonel Roderick Macneil, of the Island of Barra, has long possessed, and still possesses, one of the truest bred stocks in the Western Isles.

Some fine West Highlanders may be seen about Inverary or Lochfine. The Invarary variety of Kyloes bred by the Duke of Argyll, were once famed. In Perthshire Lord Balgray has shewn some fine lots; and Lord Lynedoch has frequently shown fine lots in Perth markets from Balgowan. A friend of mine one year at Midsummer market, at Perth, bought ten such from Lord Lynedoch. They were black, with white horns, and were great beauties. After being fed the following winter, they were taken thick fat to Glasgow market, in April, when they were pronounced to be the handsomest lot of

cattle that had appeared in it for some years. Sir Neil Menzies of Castle Menzies is a spirited breeder. He obtained the Highland Society's premium, at Inverness, in 1831, for the best pair of West Highlanders. The late Mr. Donald Stewart of Auch used to show fine cattle. On the Breadalbane estate in Argyllshire, Mr. Mackay, Ardmady, has a fine stock. Adjoining Ardmady is the farm of Dignish, which was some time occupied by Mr. Colin M'Nab, and when his stock was sold off some years ago the cows fetched 20 guineas a-piece. The present tenant of Dignish, Dr. Maccallum, in 1828 sold a bull two years old to Mr. Macdonald, Fort William, for eighty guineas. On the farm of Burravourach in Glenorchy, Mr. Thomas Waters has also a good stock. Mr. Lorne Campbell, chamberlain to the Duke of Argyll, has also capital stock. Mr. David Skirving of Garleton, in East Lothian, shewed two superior dun oxen, which he had bred and fed, at the Highland Society's show in Edinburgh in 1827, and obtained the first prize for the best pair of West Highland cattle. The mothers of these oxen were two dun cows, purchased in calf, at Doune fair, by Mr. Hutcheson, at Haddington, for Mr. Skirving, from Mr. Peter M'Intyre, then in Glenartney, on the Drummond Estate, belonging to Lord Willoughby d'Eresby. Both produced bull-calves; and as they were from the stock of a first-rate breeder, they were castrated and resolved to be kept till 1827, to be shown at the Highland Society's meeting in Edinburgh; and he succeeded in his wish, thereby proving that true blood may always be relied on to produce its like. They were purchased by Mr. Thomas Taylor, flesher, in Edinburgh, along with other two crosses, for 17*l* and Mr. Taylor resold one of them to Mr. Little Gilmore, before it left the show-yard, for 50*l*. It was to be sent to Sir James Boswell of Auchinleck, on the occasion of his coming of age, to be roasted whole. Mr. Taylor slaughtered the other, and it produced seventy-four stones of beef the four quarters, and fourteen stones of tallow. The current selling prices of the best West Highlanders at Dumbarton, are from 12*l* to 14*l* for four, and from 10*l* to 11*l* for three-year olds.

One of the finest points possessed by West Highlanders is their fine coat of hair. This is an essential point for a breeder to consider. A good coat is a great safeguard to cattle twice a-year, in spring and autumn. Cattle which have been well kept during the winter, and turned out in the spring on pasture on cold bottomed land, or in cold wet clays, will assuredly be affected for some weeks after, with a catarrhal fever, if they are not protected with a good covering of hair. In like manner, a good coat is an excellent protection in nights of early frost, or rainy days in autumn. An animal with a poor coat affected under these circumstances, will cease moving about in search of food. He will stand under some sheltered spot, with his four feet drawn together, his back raised, his eyes dull, and probably watering and grinding his teeth. On the other hand, he with the shaggy coat will move about, keeping his blood in circulation, and exciting the animal heat by filling his paunch and promoting digestion, regardless alike of the rain or the hoar frost, when it drops from his sides, or sparkles on the points of his hairy covering. Improvement of the hair promotes improvement of the hides of cattle. Thin silky hair will always be found to cover a thin papery hide. Long soft mossy or downy hair springs from a thick soft hide, smooth and pleasant to the touch, like chamois leather. Such hides make the best leather for shoes and harness, and will realize the highest price in the market. This point regarding the hide is too much neglected by breeders.

The smaller sized West Highlanders are very useful to many south country farmers, who purchase them rising two and sometimes three years old, to graze on poor moor lands growing coarse grass. Many thousands of them are bought at the Falkirk trysts, and other fairs, such as Doune, Dumbarton, and All Hallow, for that purpose. Part of the grazings are left rough for them in winter; and, in severe weather, they are provided either with hay or straw on the ground, and, in some instances, turnip, with liberty to retire into shelter at night, if they choose. Where they have proper sheds to eat their turnips in, they thrive in this way most rapidly. After two winters and a summer's keep, they will attain the weight of from thirty to forty-five stones, according to age. They always meet a ready market from retail butchers, being admirably adapted to summer killing; and feeders generally contrive to have them ready to suit the warm weather. The greatest objection to these animals being at all put into a straw-yard to feed is their restless jealous disposition, which makes them too desirous to fight with or attack one another with their sharp-pointed ready-set horns. The most profitable way is to forward them on grass as much as possible, as they are most excellent grazers. The smallest sorts are called in some parts of England "bog-trotters," which will get fat on rough coarse herbage, where no other breed can. I have seen very fat lots of them fed on high coarse pastures. A lot of twenty was lately sold by Mr. Symon Hunter, of Guardmoor, one of the highest farms on the Lammernoor Hills, to Mr. John Plummer of Edinburgh, at 16*l.* a-piece.

As a striking instance of what the West Highlanders bought in this way, may attain to, I may instance the very fine dun ox shewn by Mr. Spearman of Wharton, near Rothbury, Northumberland, at the Show of the Highland Society at Kelso in 1832. This ox was bought among a large lot at Falkirk, which cost *4*l.** 8*s* each, then six quarters old. The next year he was observed to outstrip his companions in size and condition, and to encourage his natural aptitude to fatten, Mr. Spearman fed him afterwards with superior food. In 1834 he was slaughtered, and yielded the extraordinary weight of 152 stones 8 lb. the four quarters, and I believe nearly twenty stones of tallow. His price was eighty guineas.

Had the breeder of this ox been aware of its very superior properties, he would certainly never have made him an ox. The value of such an animal as a bull would have been incalculable. Mr. Spearman has frequently bought superior lots of West Highlanders, out of which he has selected particular animals, and fed them from 80 to 100 stones.

**THE AYRSHIRE BREED.**—This breed originally arose in Ayrshire, the county which gives its name to it. It is not a very old breed, but the exact period at which it was distinguished as a separate one, and by what means it was first established, is not well known. But however it originated, it is certain that it attained a high character as a breed eminently fit for dairy purposes. Indeed, it is no uncommon thing to hear it asserted that the Ayrshire cows are the best milkers in the kingdom. That this assertion is strictly true, I am inclined to doubt, but I cannot doubt that they have somehow acquired that character, and that is sufficient proof or warrant with many to furnish their dairies with them; and being thus impressed, they live happily under the idea that they possess the best class of cows for dairy purpose that can be found. A gentleman of my acquaintance once had the misfortune to excite the ire of his friend, who prided himself on his stock of

Ayrshire cows. They were certainly neat animals but small, and had, no doubt, cost him a handsome sum of money. He happened to suggest that, on his rich pastures, if milk and butter were his only objects, that a smaller number of well bred short-horn cows would yield him as much milk and butter as all his Ayrshires. He looked incredulous. It was explained to him that the larger breed would individually consume more food, and give him in return, more milk, and that he would thus incur fewer risks of death in his stock. He appeared not to be satisfied at the time with this explanation, but it nevertheless shook his faith in Ayrshire cows, and at length he tried a few short-horns, and when he found he could sell his short-horn bull-calves, and queys in calf, at large prices, and at a ready market, he fairly jilted the Ayrshires. The truth is, the Ayrshires have been too much bepraised as milkers. Let us observe the practice of those who make their livelihood by the disposal of dairy produce, and we will find that they do not prefer the Ayrshires as the most profitable milkers, but generally purchase the short-horns. The large dairies in London are almost all filled with short-horn cows, they being the favourite on account of their profitableness. In Liverpool it is the same; and the dairy farmers in Cheshire now prefer them. The large Caledonian dairy at Meadowbank, near Edinburgh, began with a stock of many kinds of milch cows, but soon found that the Tweedside short-horn cows were the most profitable. The reason for the choice is obvious. Individually the short-horn cows are much larger than the Ayrshire; they consume more food, it is true, but not more in proportion to their size; but they give more milk, take up less room, and give less trouble in proportion to the quantity of milk which they give.

The external characters of the best of the Ayrshire cattle are, a straight and nearly level back, the top of the shoulder being a little below the level line, and there is an evident tendency to depression over the loins. The ribs are pretty round, and the body deep; but there is a deficiency in the filling up of the buttocks. Viewed from before and behind, the carcass is rather narrow, particularly before; viewed from above, the shoulder is much narrower than the hocks, which gives the body a considerable wedge-shape, and the top of the shoulders a sharpness. The legs are short, and the body looks long for its height. The muzzle is fine, the face broad but rather short, the eye complacent, and the horn short and turned upwards, though not gaily. The expression of face, though gentle, is rather unmeaning. The colours are red and white like the short-horns, though not so rich, and mixed in some instances with black; but they are arranged in irregular blotches and patches, which are seldom round and never grizzled. The skin is smooth and thin, and the handling, though good, wants the mellowness which a thick soft skin possesses. The thinness of the skin, and fair handling, indicate a disposition to give milk, and a tolerable feeder. The beef is well mixed, and of good quality, but Ayrshire oxen never die well to the butchers. Few Ayrshire cattle are kept to be fed, the bull calves being fed for veal, which is excellent, and much of it reared in Strathavon, in Lanarkshire, and the quey-calves are kept to renew the cow stock. The breed, in its uses, is therefore altogether confined to the dairy. The best Ayrshires are found in the district of Cunningham.

The Highland Society's Show at Ayr last autumn (1835,) brought out a large display of Ayrshire stock. There were milch cows, queys, and young and aged

hulls. They were all in fair keeping condition; but it could not fail to strike a stranger that all their breeding animals were very small. They all bore the characters of a small dwarfy breed, wanting substance and strength. Whether the Ayrshires were ever larger I cannot say, but when the best stock of the country wanted size, it is certain that breeders must, at least at present, prefer small breeding animals. The want of size and strength are of themselves sufficient characteristics to cause strangers to doubt the great dairy powers which the Ayrshires are said to possess. For my part, after seeing them at Ayr, I was very much inclined to the opinion of them, expressed at the show, by an eminent breeder of short-horns,—“that the Ayrshire cow was only fit for cottars or moor-side farmers, and not for the large farmer.” There were but few fat Ayrshire oxen shewn; all were good beasts, but there was so much difference of symmetry and general appearance between them, that it was difficult to ascertain which was the true breed, and whether there was a dash of other blood in them. The best ox of them all, in my estimation, appeared the likeliest to a short horn. But I may mention that a large dairy farmer in Ayrshire confessed that Ayrshires were now getting too small, but that those exhibited at the Show at Ayr were not the best stock of the country.

I have heard it asserted by persons whom I otherwise considered intelligent judges of stock, that the Ayrshire cows owed their milking properties to the wedge-shape of their bodies, that is, while they are wide behind, and capacious for the formation of milk, they are narrow in the shoulder and chest. They are certainly wedge-shaped, as I have already stated; but this appears to me an extraordinary reason, at least an unsatisfactory one, that they should therefore be good milkers. That a wide hook, a broad pelvis, and deep flank are essential requisites in every good breeding cow, every one knows. This conformation is absolutely necessary for the proper enlargement of the calf, and the convenience of a large udder. This peculiar conformation is desirable for a good breeder and milker of every breed of cattle. Where there is naturally an abundance of food, an abundance of milk will naturally be looked for; and, to show that Nature is not inattentive to this relation, she produces the young large in proportion as the mother is large, in order to consume the large quantity of milk; but these circumstances have no regard to the narrowness of the chest, which confines the play of the lungs, nor with a sharp shoulder, which is only necessary to animal of speed. But as a decided proof that the milking properties of cows have no relation to the breadth of their shoulders, I need only instance the case of short-horn cows, which are capacious behind, produce large calves, yield a great quantity of milk, and yet have broad shoulders and wide chests.

But, after all, the best breed for dairy purposes must be decided, not by reasoning, nor by references, but by obtaining the great object for which it is desired—namely, profit from dairy produce. One should think that that breed which returned the largest produce for the same quantity of food would be the most profitable. Where sweet milk alone is disposed of, this criterion would be strictly applicable; but where butter is desired it might not be applicable. We have already seen that milkmen prefer short-horns, but so do the butter-makers in Cumberland; but the butter makers in Clydesdale prefer Ayrshires. But it may be desired to dispose of cheese instead of milk and butter; and for this purpose, the cheese-makers of Ayrshire prefer the Ayrshire cows; but we have seen that the cheese-

makers in Cheshire prefer short-horn cows. So that different ideas must actuate milk, butter, and cheese makers in different parts of the country. The quantity of milk said to be given by Ayrshires has certainly been exaggerated. Some writers have stated it at 2,000 Scotch pints (1,000 gallons) a-year from one cow. Perhaps a few cows might yield that quantity, but from what I have heard practical farmers say, that from 1,000 to 1,500 pints would be nearer the actual quantity. I have known many short-horn cows give twelve Scots pints (six gallons) a-day for several months in summer, and I have known of another, a cross between a Galloway cow and short-horn bull, belonging to a steward of a farm in Berwickshire, which yielded twenty pints a day during the best of the season, and she had to be milked five times a-day to keep her easy. She would regularly come at the appointed time to the gate of the field to be eased of her burden. These are remarkable instances;\* but 10 pints (5 gallons) a-day for the whole summer is no uncommon produce of milk from a short-horn cow. I am also inclined to doubt the quantity of butter which Ayrshire cows yield, as stated by some at 257 lb or at the rate of nearly 5 lb a-week all the year round. I have known of a very small Angus cow give weekly, during the best of the season, 9 lb of butter; and a calf of hers got by a short-horn bull, when a cow, yielded 12 lb of butter a-week; but these again, are rare instances. I suspect from 190 lb to 200 lb altogether in the year, or 3½ lb or 4 lb a-week, all the year round, would be much nearer the ordinary quantity, and that is a good gift.

The Ayrshire breed has spread over a large extent of country, in the counties of Ayr, Lanark, Stirling, and Renfrew, completely; and partially in Dumbartonshire and West Lothian; and, I believe, Wigton; besides being scattered in small lots over most of the lowland counties of Scotland.

THE GALLOWAY BREED.—There is no county of the name of Galloway, that being the designation of a district of country comprehending the counties of Wigton and Kircudbright. The Galloway is a polled breed, though some years ago many of them were horned; but the polled being the less likely to injure one another in the drove, the horned have been gradually wed out. Sometimes yet a small horn is exhibited, attached only to the skin. The Galloway is a symmetrical useful breed of cattle. The back is quite straight and level, at least the top of the shoulder stands more to the level than in the Angus breed. The ribs are well rounded, and the quarter is longer than in the Angus, which makes the loins short coupled. The body is deep, the brisket being well forward, and the buttocks well filled down to the hock. On being viewed before and behind, the body is broader than the Angus, the buttocks being round, the back across not flat but rounded, and the body wide across the brisket. Viewed from above, the breadth of the hocks is carried forward to the shoulders more than in the Angus. The head is rather large, and looks coarse, though it is finer set on the neck than the Angus. The muzzle is not fine, the eye dull, shewing no white, and indicating sulkiness;

\* I may mention a remarkable instance of precocity in the giving of milk, in a quey from this extraordinary milker. The quey when two years old, before it had taken the bull, or had ever seen a bull, for there was none kept on the farm it was bred, dropped an udder and gave milk. The owners thought some disease had affected the udder when they saw it enlarging, but on endeavouring to rub it and strip the teats, with a view to relieve it, pure milk came, and continued to come all summer, as abundantly as if the quey had borne a calf.

the ears thick and hairy, and the crown of the head surmounted with a large round knob, tufted with hair. The colour is mostly black, with sometimes a line of a dull dusky hue running along the back. The legs are short and strong, and few breeds carry the beef so near to the heels as the Galloway. The skin handles kindly, and is well protected with soft longish hair. The beef, when well and long fed, is of first rate quality, fetching the highest prices at Smithfield. The whole carcass shews great substance, and indeed I may say that no cattle bred in Scotland shows more substance than the Galloway's; the beef being placed mostly on the back and hind quarters, the most valuable parts of a fat ox.

The Galloway, as I have already observed, has been crossed with the Angus to improve it, and now the best Angus are as good as they; they are indeed scarcely distinguishable. It would require a very good judge of both to distinguish them. Both might, and do, mix in the same drove in England, and are sold together, and denominated Galloways. But the general run of the Galloway cattle is better than the Angus. They are more like one another, shewing a greater purity of blood, and were a single beast run off the lot, it would be a fair sample of the rest, and the sample would be a good one. The same properties could not be observed in the case of the Angus. I have also said that the Galloways are like the Buchan doddies, but they scarcely attain to the weight of them, though they are of finer quality. The former cut up beautifully with the retail butcher, the latter is better adapted for strong ship beef.

Few Galloways are fed in the land of their birth, being driven away at two and three years old, to the pastures of Norfolk and Suffolk, to be purposely fed for the Smithfield market, where they pass under the name of Norfolk Scots. From March to July fully one-third of the cattle in Smithfield are of this description. They are much liked by the London butchers, being admirably adapted for cutting up when thick fat, or "*hard fat*," a term indicative of an animal of fine quality. But I do not think that they arrive at early maturity, as they do not get ripe till four years old, except when extra fed.

The best queys in Galloway are kept for breeding cows, the rest are spayed, and sent along in droves with the stots. The spaying used to be delayed till the queys were a year old, but now it is generally performed a few months after their being calved. These spayed heifers never attain to the size of the stots, but, like all heifers come earlier to maturity, and produce beef of the very finest quality. The Galloways not only occupy Galloway proper, but the southern portion of Ayrshire, and a considerable part of Dumfriesshire. As I have already remarked, they have been taken to Forfarshire to improve the Angus breed, but few of them are now to be found in that county in a pure state. Galloways are kept in a pure state in Sutherlandshire, by Mr. Alexander Craig of Kirton, near Golspie, on that tract of land lying between the Little Ferry and Golspie, which has been lately so much improved by Mr. Craig, Mr. Sellers, and others. Some years ago Mr. Craig got a few cows and two bulls from Galloway, which he has since increased to a stock of from fifty to sixty breeding cows, which I have seen, and I must say that I never saw a lot of Scottish cows, which I admired more. They are very like one another, and showed excellent symmetry, and some fine points. I saw them in August, when they were in high condition, almost fit for the butcher. They were stated to be fair milkers. They seemed suitable to that part of the country, and they inspired their proprietor with confidence in the breed. I recollect of Mr. Craig

selling a lot of three-year-old Galloways, to Mr. Brown of Linkwood, a distiller near Elgin, for 11*l* a-piece, the price of cattle being low at the time. They were fed on distillery offal to April, when Mr. Brown was bid only 14*l* a-piece for them. He preferred driving them to Aberdeen, and sending them on consignment by Steam to a Smithfield salesman, who obtained 19*l* a-piece for them. After deducting 3*l* a-head of expenses, he still got 2*l* a-head more than he was offered at home. But, it may be observed, that Mr. Brown being a malt distiller, the offal was much inferior to the offal of raw grain. Mr. Craig showed some of his Galloway stock at the Highland Society's Show at Inverness in 1831, which were much admired, and gained a premium. A few of the three-year-olds were purchased by Mr. Dalgairns of Ingliston, in Forfarshire, for about 21*l* each, and were afterwards sold by him in January 1832, in Glasgow market, for 25 guineas a-piece. They were very superior oxen, and supposed to weigh fully 70 stones each.

These which I have now but shortly noticed, comprehend all the principal breeds of cattle in Scotland. As my intention was only to describe Scottish cattle, I shall not attempt a minute description of those in England, particularly as there are many there whose characters I have never had a proper opportunity of studying. My determination is to say nothing of live stock at all but what I know from my own observation and experience; and as long as I adhere to this rule, there can be "no mistake." But as the largest portion of our Scotch cattle go to England, it may be interesting to know in what parts of England they are chiefly to be found; and as many cattle from Ireland now find their way to this country, and as I have seen a considerable number of all kinds in Ireland, a few words upon their characters may not be irrelevant.

The short-horns have spread themselves over the counties of Northumberland, Durham, Westmoreland, York, and Northampton. They have partially obtained footing in Cumberland, Cheshire, Lincolnshire, Norfolk, and Suffolk, and in several of the midland counties. Numbers of them are sent from Lincolnshire, under the name of "Lincolns," to the London market. They had been purchased in the northern counties, and fed off on the deep moist pastures in that county, where they attain to great size and heavy weights. The dairies in all the largest towns in England are supplied with short-horn cows, as being the steadiest milkers, and afterwards the best feeders, of any breed. The Galloways, Angus and Buchan doddies, find their way in droves to Norfolk and Suffolk, where they are fattened for the London market. They are much admired, and fetch the highest prices. The North Highlanders occupy the coarse and upland pastures in the elevated lands through the middle of England, Northumberland, and Yorkshire; and many pass into Wales. And the West Highlanders are to be found grazing in the low pastures of the midland counties, particularly Leicestershire, as far as the neighbourhood of London, and to the east and west of that line in most of the lowland pastures. They are great favourites in the country markets in England, and, along with the North Highlanders, make excellent cutters up for summer killing. Such is the dispersion in England of the different breeds raised in Scotland.

ENGLISH BREEDS.—In regard to the breeds peculiar to England which I have seen, I admire the Herefords the most, because they show when fat, symmetry and points the nearest in resemblance to those of the short-horns. Their colour is red, with

almost always much white in their faces, and some are white backed. Their horns are white, and longer than the short-horns. They carry the beef well on the back, and although a heavy breed, they generally sell at the top price at Smithfield. I have seen some beautiful lots of them shown there about Christmas. The Hereford cow, being, however, a very bad milker, and the calf consuming all the milk, this breed of oxen must be less profitable to the breeder than the short-horns. The Herefords pay the feeder better than the breeder.

The long-horns occupy several of the midland counties of England, particularly in Lancashire. They are mostly of a dark red colour and brindled, with white along the back, and long, spreading, and sometimes drooping horns. They have good coats of hair, fair symmetry, having the back well covered with beef, and get to great weights; but they are rather coarse in the bone. They are good grazers and pretty well liked by feeders, but still the Scotch cattle are preferable as grazers. The late Mr. Bakewell cherished the long-horns in preference to all others, and maintained their superiority; but experience now generally awards the palm of merit to the short-horns.

The Sussex cattle are a large breed, generally of a red colour, with no white upon the face, but having larger horns, plainer skins, larger bone, and being deficient in symmetry, points and quality, when compared with the Herefords. They are well adapted for the shipping line, and are frequently bought by the shipping butchers, while the Herefords are purchased by the cutting up butchers, who always give the highest price for the best quality.

The Devons have a pure rich red colour, with white horns. They possess fair symmetry and points, and, consequently, are of middling quality; but not equal to the Herefords as cutters up. Some of them have been tried in Scotland, but they do not seem to take in that country. I have seen them grazed along with short-horns, and had no chance with them as feeders. I have also seen them killed; they are fleshy, but want that fine mixing so common in Scottish cattle and short-horns. They are prized in some parts of England, as in Devonshire and Norfolk, for yielding richness and quantity of butter. It is certain that very little agitation causes the cream to pass into the state of butter. Lord Lynedoch imported a large lot of North Devon cows from Mr. Coke of Norfolk a few years ago. Some of them, on being exposed to sale, found no purchasers. Devons are also favourites in some parts of England for the draught. They have been tried in Ireland, particularly in the county of Mayo, where several breeding stocks are kept. There they are small but the beef is better than that of the native Irish cattle. They have probably been imported from North Devon.

The Suffolk cattle are all dun coloured, and they very nearly resemble the Angus in external characters. The cows are said to be greater milkers than the Angus, but no wonder when one observes the superior pastures of Suffolk. Very few oxen of the duns are fed fat, the bull calves being fed for veal, and the cows purposely kept for making butter for the London market: hence the proverbial poverty of the Suffolk cheese.

The Welsh cattle resemble the smallest and coarsest sorts of our Fife and Aberdeenshire runts, having thick horns, thick coarse plain hides, and narrow backs, and, in my opinion, they are a very inferior breed of cattle. This is the description of many which I have seen fat at Smithfield, and lean at Epping Forest and Rumford markets. They appeared,

however, very like one another, which is a proof that no intermixture of blood exists in them. But graziers and feeders out of Wales (for in that country the prejudice in favour of their own cattle exists in a very strong degree,) who can find Scottish West Highland cattle, never think of buying Welsh. The agriculture of Wales being far behind most parts of the kingdom, inferior cattle may be expected to accompany inferior husbandry.

IRISH BREEDS.—The native breeds of Ireland deserve a separate notice. There are apparently three breeds of cattle in Ireland: one inhabiting the mountainous parts, and being of small size, and commonly called the Kerry breed; another, a small but larger breed than the former, to be found chiefly in the north of the island; and the third is to be found in the low rich plains in most of the midland and southern counties. The two last are evidently both long-horns, but they do not appear to have had a common origin.

The Kerry breed is as small, and not unlike the Skibos of Ross-shire. They have small bone, sharp muzzle, quick piercing eyes, long sharp pointed horns turned upwards gaily at the points, fine hairy coats, and are as wild as hares. When let alone they are quiet enough, but if the least irritated or raised no fence can contain them. They are great milkers for their size, and on that account the heifers are in constant demand, fetch good prices, and make a good poor man's cow. In this latter respect they are like the Ayrshire cows. Drovers of Kerry heifers may be met with in many parts of the low country, ready to be disposed of in lots of one or two to small farmers and families in towns who keep cows.

The cattle in the north of Ireland are a shapeless inferior sort. A few of a symmetrical shape may be occasionally seen, but the generality of them are certainly worthless, and I should conceive dull feeders. They have large heads, long horns, coarse bone, coarse thick hides, of every variety of colour, but mostly white on the back, with dewlaps, and the body is quite thin when viewed before or behind. Large droves of them, three and four years old, are weekly exported to Liverpool, as grazers in England, of the value of 5*l* a-piece. I was informed by the owner of a steam packet at Warrenpoint near Newry, that eight hundred head of them per week, for sixteen weeks, had been shipped from that port to Liverpool alone. The freight was 15*s* a-piece. Many of the heifers are in calf, and frequently bring forth their young on board ship, so ignorant are dealers of their existent condition, and so careless are the breeders of the promiscuous intercourse between the sexes.

The breed of the plains, with long horns, is a large and valuable breed. They have straight level backs, strong bone, thick and rather hard hides with plenty of hair, placid eye and countenance, great substance with thick shoulders, short coupling, and backs well covered with beef. Their colours are various, mostly red and white, coarse ugly roaned, with white along the back. When fat they are much liked by the shipping butchers. Liverpool and Manchester fat markets are almost wholly supplied with them; but the finest description of them are to be seen in Smithfield market, Dublin. The quality of the meat is middling, strong in grain, but juicy, and the flavour is always pleasing. As grazers in England, they are never preferred to the Scottish cattle, but in their own deep land pastures and moist climate they feed very quickly. It is perhaps owing to fast feeding that the grain of the flesh is larger, and it is this property which makes the meat take so well at Liverpool for the shipping. Many are also

sent fat to the Glasgow market, where the heavy parts, such as shoulders and rounds, are salted for hams, that city having long been famed for beef-hams. The hides of these cattle, on account of their thickness, give 10s to 20s a-piece more than the hides of short-horns of the same weight. Upon the whole, they are a useful breed of cattle, but they have not the fine quality of the Scottish Galloways or West Highlanders, which take so readily in London. But the Irish cattle can be brought to great weights. I saw a lot in Dublin market of five-year olds, which were estimated to weigh 110 stones each, and were sold for 32l a-piece.

I consider the price of cattle fully as dear in Dublin as on the borders of England and Scotland. A lot of cross heifers, of about forty stones each, sold for 12l 10s each, and at the time they would not have brought the same money in Edinburgh or Morpeth. The best beef in either of these markets did not exceed 6s or 6s 3d the imperial stone, that being in the beginning of April. At that time the grass was so fine round about Dublin, that I saw a large lot of cattle grazing in the Phoenix Park. On returning to Scotland a few days afterwards, there were few symptoms of vegetation. But indeed, throughout the whole midland and southern counties of Ireland, such as Meath, East Meath, Tipperary, Kilkenny, Carlow, Limerick, Leitrim, Roscommon, and other counties, the pasture to Scottish eyes is indescribably good. I have often thought, and not without a feeling of envy, that were such pasture in Scotland, or were Scottish farmers and their stock in Ireland, what a mine of wealth might not that country become to the whole kingdom! But it is impious to indulge in impossible wishes.

The Irish beef being strong in the grain, stands the salt, and is therefore well adapted for the supply of the navy. During the war, salting of Irish beef was carried on to a very great extent. Much chicanery, it is true, was practised by the contractors for beef upon the feeders of cattle, who were principally the small farmers, and it was lamentable to hear how they were duped and cheated; yet a similar disposition is frequently shown by the latter, under unprovoked circumstances, to poor labourers who were under their power, that our pity for them strengthens into a satisfaction that they had received retributive justice from superior hands. Such is the prevailing desire to over-reach one another among the lower orders in Ireland, that until their moral habits are raised to a higher degree, no peace can be ensured, and no confidence established, in that country. Many of the most fearful contentions amongst families have entirely been engendered by moral turpitude.

**ISLE OF MAN BREED.**—The cattle from the Isle of Man might be expected to be a sort of distinct breed, because we frequently find that where little intercourse takes place between an island with the main land, the cattle on it naturally assume the characters of a distinct breed. They become like one another, and show that they have had a common origin, like the West Highlanders in the Isle of Skye, formerly alluded to. With these ideas in my mind, I was anxious to see the cattle of the Isle of Man, but what was my astonishment when I beheld in them the most mixed breeds I ever saw, particularly in a cargo which arrived in Liverpool as I was one day waiting at the Brunswick Docks the arrival of a vessel with cattle from Ireland. They beggar description. I was impressed on seeing them that the worst cattle of all breeds and colours and shapes had been collected together. There was not one good beast amongst them. To satisfy my curiosity about the value of them, I asked the price at the owner;

he answered, 8l a-piece. I should have thought them dear at 5l, although they were all above three years old.

**ALDERNEY AND JERSEY BREEDS.**—A few cows of the Alderney and Jersey breeds are to be seen in Scotland, kept as dairy cattle for supplying butter to gentlemen's tables. Their milk is certainly very rich, and the butter is equally so; but the cows are not adapted, in my opinion, to this climate. They are mostly of a light brownish-red colour, mixed sometimes with white, and sometimes with dun and white, with short horns, and have a timid cast of countenance. Their hair is short and smooth, and the skin very thin and papery. When viewed from behind, their body appears like two boards nailed together, "as thin as a lath."

**FRENCH BREEDS.**—I have seen some French cattle. They are not unlike the Guernsey breed. They are ill made, but give excellent milk, and get very fat on the rumps, but they are always thin on the ribs, and the beef is generally of a yellow hue.

**AGRICULTURAL PETITIONS.**—Mr. Editor, —The farmers have, as in duty bound, stated their distress to the legislature. Last week Sir Robert Peel remarked, that the Committee might perhaps make a Report at the end of the Session, but it would be merely a report. I hope, therefore, none of my brother farmers are looking for help to that quarter. Deceived as we were by our representatives, on the malt tax question, we have now only to look for safety, in the reduction of rents and expences. Rents must come down; wheelwrights, blacksmiths, and harness makers bills, must be reduced to the Peace prices, and all trades must moderate their charges. With bread at five pence the loaf, and meat at sixpence a pound, and all articles of life, cheap in proportion, we may manage to live if our landlords stand by us. Therefore let all be exhorted to look no more to Parliament. AGRESTIS.

**AGRICULTURAL STOCK.**—Last week the sale of the cattle, &c. of Mr. Trench, of Bromfield, in this county, took place, and it has not surprised us that extraordinary prices were obtained for many animals, because for more than 20 years Mr. Trench has been a pre-eminent breeder and farmer. One cow and calf sold for 60l 10s; a three-year old heifer in calf, 52l; a three year old heifer in-calf 40l; two-years old heifers, 30l 10s, and 29l each; yearling heifers, 20l each; two-year old bullocks, per pair 42l 10s. The bullocks, of their age, were acknowledged to be the best ever seen by the company present. Yearling bullocks 19l per pair; a two-year old bull sold for 90l, and a yearling ditto for 80l. The Southdown ewes averaged nearly 40s each; not more than market price. One ram sold for 40l 10s. During the sale, it was generally remarked by the company that they never witnessed a more respectable attendance, comprising 400 to 500 agriculturists:—among others was the Earl of Lisburne, who was a considerable purchaser; Thos. Andrew Knight, Esq., was also present, and many of the gentry in the neighbourhood. The two-year old bull was purchased by W. Oakley, Esq., of Oakley, near Bishop's Castle; and we doubt whether a landlord could better assist his tenantry than by thus enabling them to improve the quality and symmetry of their cattle. The result of the sale, and the warm and generous feeling evinced towards Mr. Trench, must be highly gratifying to him. Much regret was expressed that a gentleman who had lived upon a farm 39 years, has at last resolved to quit it; and the most ardent wishes for his prolonged health and activity were expressed again and again. Broome, the auctioneer, was in his glory at such a sale. He expects old times to return; but farmers must not be misled by the sale and dispersion of this extraordinary stock.—*Shrewsbury Chronicle.*

## PALSY IN SHEEP.

(From the Veterinarian.)

Palsy is not of so frequent occurrence in sheep, as in oxen; for in their general management they are more exposed to the vicissitudes of the seasons, and hardened against the influence of sudden atmospheric changes. Nature has also given to them, for their own benefit and for ours, a thick coat of wool, which, under ordinary circumstances, may bid defiance both to cold and wet: yet there are times when they seriously and fatally experience the benumbing power of the former.

The ewe at yearning time, enfeebled by the process of parturition, more than usually susceptible of impression from external agents, and less able to struggle against those which are injurious, is carelessly left in a bleak and exposed situation: at night comes "a frost, a killing frost," and, as the shepherd with true pathology calls it, "she is chilled, chilled to the very marrow."

The lamb, just dropped, is perhaps naturally weakly, or, if strong, yet suddenly changes the temperature of the mother's womb for one perhaps below the freezing point, and lies for hours on a bed of snow. True—nature has kindly given to these little ones, and to young animals of every class, a power of resistance against the cold—a degree of insusceptibility to its benumbing influence—but the vital power must necessarily sink under an attack like this. The farmer carelessly examines his flock at night, but thinks not of the bitter biting blast to which they will be exposed; and in the morning he finds many of them dead, and more deprived of all power of motion.

THE PROCESS OF MISCHIEF.—The heat is rapidly abstracted from these neglected and abused animals by the cold bed on which they lie, and the cold air around them. It is abstracted far more rapidly than it can be supplied, and the general sensibility, and every vital manifestation, is diminished, and becomes inactive; the power of voluntary motion is suspended—the nervous influence of the organic system is withdrawn—the vital current is arrested, and life is fled. One universal palsy leads on to, or is another word for death\*. If the full depress-

\* Some of the most appalling accounts on record of the rigidity suddenly produced by excessive cold, are contained in Labaume's history of the disastrous campaign in Russia, translated some twenty years ago by the author of these lectures, in order to wile away a few idle hours.

The French army was retreating from Viasma "suffering yet more from the cold than from hunger. They abandoned their ranks to warm themselves by a fire hastily kindled; but when they would rise to depart, their frost-bitten limbs refused their office, and a partial insensibility crept over them. We heard some of them faintly bidding their last adieus to their friends and comrades—others, as they drew their last breath, pronounced the names of their mothers, their wives, their native country, which they were never more to see. The rigour of the frost soon seized their benumbed limbs, and penetrated through their whole frame. Stretched on the road, we could distinguish only the heaps of snow that covered them, and which at almost every step formed little undulations like so many graves."

They at length approached the Niemen. "Some had lost their hearing, others their speech, and many were reduced by excessive cold and hunger to a state of frantic stupidity. Some were so weak, that, unable to lift a piece of wood or roll a stone towards

ing effect of surrounding cold is not produced, yet the energy of the nervous system has been so fearfully impaired, that the stimulus, and the power of being acted upon, whether with reference to animal or organic life, are for awhile suspended; and if indeed they ever return, they return slowly, and with considerably diminished energy. For many an hour, and often during many a day, the blood loiters, and the muscles are rigid, or their contractions are in a manner powerless; and there follows a compound of rheumatism and of palsy—the last predominant and most obstinate. After all, the animal rarely regains its former condition and value, but continues a mortifying and disgraceful exhibition of the carelessness and inhumanity of the farmer. How much has he yet to learn with regard to the treatment of the lamb and its mother! In some seasons the mortality among these animals forms no inconsiderable item in the catalogue of his losses, and the circumstances which contribute to general agricultural distress.

Mr. Garland, in the first volume of "The Veterinarian," describes this infantile palsy, if I may so call it, in the lamb. He says that "three lambs were dropped on the 23d of March, without any assistance. In each there was a complete loss of motion on the left side. They lay quietly on the affected side, but when lifted up, and thrown on the opposite side, their struggles were incessant." This hemiplegia in the lamb, while we have little or nothing of it in the horse or the ox, is a circumstance for which I confess that I am unable perfectly to account. One thing, however, we know, that the sheep has hyatids in the brain far oftener than any other domesticated animal. A disposition to the generation or shelter of this parasite in the cranial cavity, is one of the pests of the sheep. Were there congenital hyatids here?

LESSON TO THE FARMER.—In the beginning of the lambing great numbers of these animals die from cold. A warm thick hedge towards the north, or a temporary shed of hurdles or of faggots, however rudely constructed, and ultimately costing little, would have afforded almost all the shelter which was required. Well! the farmer feels the consequences of his folly and inhumanity. His expected flock of lambs has been materially diminished, and he determines to make the most of what remains; but with consistent want of thought or calculation of consequences, he again goes the wrong way to work, and he kills them with kindness: for, scarcely recovered from their former debilitated state, he now puts them where there is the best flush of grass, and he decimates them by inflammation.

ADVICE TO THE VETERINARIAN.—When, gentlemen, you begin to be consulted, as you will ere long, with respect to the diseases and the general management of all domesticated animals, your inquiries into the nature and causes of disease will enable you to give your employer many a valuable hint, and, by diminishing the casualties to which his live stock is exposed, you will materially lessen the aggregate of distress.

TREATMENT.—Well, gentlemen, there is a little art in treating these poor palsied beings, and especially the young ones; for although they resist the cold longer than the adult animal, yet they have not

the fires which they had kindled, they sat upon the dead bodies of their comrades, and with a baggard countenance stedfastly gazed upon the burning coals. No sooner was the fire extinguished, than these living spectres, no longer possessing the power to rise, fell by the side of those on whom they had sat."

strength to bear the re-action which follows when the vital heat once more begins to be produced. The means of relief are simple, but should be cautiously applied. The little patient may be put into a hamper, and carried home, wrapped up in straw, and thus the little portion of warmth which yet continues to be eliminated will not be dispersed. After awhile he may be brought, but very cautiously, into a warm room, or placed at some distance from the fire: a little warm gruel may be administered, with a small quantity of ginger; or, if he does not soon begin to rally, a little ale may be added to the gruel. I would hardly allow any thing stronger. Mr. Garland recommended that his patients should be bathed in warm water for a quarter of an hour every day. "This," he says, "was of considerable benefit, and in a few weeks they were enabled to stand; but when we ceased to bathe them, they became rapidly worse than before, and were killed." Moderate warmth is the principal restorative; but as soon as the lamb begins to recover, and is able to toddle a little about, he should be returned to his mother, who has, in the mean time, been removed to a more comfortable place, and her care of him and her milk will gradually accomplish a cure.

**DIARRHŒA.**—The organic system, however, does not appear so soon and so perfectly to rally as that of voluntary motion. The limbs lose their rigidity, but the digestive organs imperfectly discharge their functions. The frequent, or, to a certain extent, the almost invariable consequence of this exhaustion, is diarrhœa, difficult to arrest, and soon assuming a serious character. The best, and indeed the only, safe and efficacious remedy that I know, is that which, differently prepared by different persons, goes under the name of "the sheep and calves' cordial." It is composed of prepared chalk as an antacid, the acescent principle often sadly prevailing in these patients, and at this time; catechu, as an astringent: ginger, as the very best stomachic and tonic that we have—a tonic because a stomachic; opium in the form of laudanum, allaying the irritability of the exhalent vessels, and the inflammation of the mucous membrane of the intestinal canal; and peppermint water as a menstruum, a vehicle, and yet, by its stimulant and tonic power, preventing the formation or assisting in the expulsion of those gases, which in every derangement of the digestive organs are so annoying and dangerously extricated in the stomachs of ruminants. The proportions of the ingredients would probably be one pound of the prepared chalk, half a pound of powdered catechu, four ounces of powdered ginger, and a pint each of the laudanum and peppermint water.

**PALSY AT WEANING-TIME.**—Two or three months afterwards comes another dangerous season as it regards the lambs—the time of weaning, and especially if the weather should be cold. They are then often turned into some distant and, perhaps, upland pasture, that the mother and the young ones may be out of the hearing of each others bleating; and that the food may not be too plentiful or stimulating until the lamb is somewhat accustomed to his new kind of nourishment. Notwithstanding every precaution, however, purging will come on, and cold will be taken, and there will be weakness of the limbs generally, and especially of the hind limbs, and an approach, at least, to palsy. Possibly this may be somewhat connected with the state almost of abandonment in which they were left when newly dropped. There remained a certain debility, or possibly predisposition, to palsy. Mr. Garland says that, when other lambs of the flock to which he referred became two months old, they were attacked by a

similar affection. The treatment will be simple. If the weather or the locality demands it, the animal should be placed in a more comfortable situation; a purgative, consisting of Epsom salts with ginger, should be administered; and then a dose or two of the "cordial" will usually set all right.

**CAUTION.**—The palsied ewe at weaning, or the palsied lamb at weaning-time, should undergo no protracted course of treatment, especially if they are in tolerable condition. The result of the treatment is not always certain; there may be considerable deterioration of value, or, after all, the patient may be lost. Therefore, if immediate success does not attend your remedial measures, honesty to your employers will suggest the hint that the animal may with most advantage to the owner be sent at once to its destined place.

**THWARTER-ILL OR SHAKING.**—There used to be a singular cerebral or spinal affection among one or two-shear sheep, which fortunately has, in a manner, disappeared in our country. It was called, I know not why, *thwarter-ill*. In some districts it was more appropriately named *trembling* or *shaking*. There was a peculiar uncertainty in the gait and walk of the animal, every limb seeming to give way; and this gradually degenerated into *shaking palsy*. The patient at length fell, and could with difficulty rise again.

**THE LEAPING-ILL.**—From the apparent eccentricity of motion in some cases, it was called the *leaping-ill*. The sheep would neglect their food, stand still, stare stupidly around them, and then all at once leap up as if to clear some hedge or ditch. The neck would often become stiffened, and turned on one side. The animal would become weaker and weaker. The use of its limbs, and particularly of its hind limbs, would gradually be lost, and, at length, it would fall to rise no more; yet even as it lay it would occasionally abandon itself to the most singular contortions. Then would come some moments of remission, and the poor animal will set to work and eat every thing within its reach; and many a day, and occasionally some weeks, would pass (if the owner was brute enough to let them), the palsy becoming more confirmed, the animal wasting every day, but the appetite remaining unimpaired.

**LOCALITY, CAUSES, AND TREATMENT.**—This disease was usually confined to poor and overstocked farms, and was most frequent in March and April, when the winter's food was gone, and that of the spring had not sufficiently grown. It was often sudden in its attack, like all other species of palsy. After an unusually cold night several of the sheep would be found in the morning trembling, or down and unable to rise. Some would fall, and die in a few minutes. Others would drop, and lie many hours or days shivering or struggling. In some it would appear in the form of, or soon become, palsy of the hind legs; in more, one side only would be attacked, and others would be lame in one leg only. It seldom attacked sheep in good condition, but the weak and half-starved ones were its principal victims. Warmth, bleeding, and physis, were the only remedies, but in most cases the evil was past all cure.

**HOGG'S DESCRIPTION OF IT.**—The Ettrick Shepherd gives the best account of it. He says that fifty years ago its ravages were so considerable that the farmer believed the disease to be infectious, as well as hereditary; and that it was as unsafe to buy from a stock in which the thwarter-ill had appeared, as from one that was liable to the rot. Mr. Lawrence, quoting from Lisle, says, "some years the sheep will be apt to be taken with the disease they call the *shaking*; some farms are more subject to it than others: it is



a weakness which seizes their hinder quarters so that they cannot rise up when they are down. I know no cure for it. Some years a hundred of a flock have died of it."

**VARIETY OF THE DISEASE.**—A very similar complaint used to be prevalent, and is still observed, on several parts of Salisbury Plain. From an unusual coldness of the season, or on certain exposed and bleak situations, or from starvation, or neglect of various kinds, an endemic or epidemic disease breaks out. It commences with slight staggering; a certain degree of stupidity; a gradual wasting; a weakness of the loins; the animal continually slipping and falling; dragging his hind legs behind him more or less; one leg evidently more affected than the other; occasional grinding of the teeth; the appetite unaffected; diarrhoea; death. The post-mortem examination presenting usually softening of the spinal marrow in some part of it, and mostly about the lumbar region; but not infrequently hydatids in the brain, sometimes one or two considerable ones, at other times groups or bunches of them in the ventricles, or in the scissure between the lobes.

**CONNECTED WITH HYDATIDS.**—I confess that I am much disposed to attribute these cases of real or spurious palsy to pressure on the brain by hydatids; and those hydatids, if not owing their existence, yet the suitability of their locality, to damp and unhealthy pastures, neglect, starvation, or hereditary predisposition. I have treated of this at length when speaking of the hydatid in the brain of sheep; and while we must not abandon the individual cases that come under our notice, we must find our hope of eradicating the disease from the farm or the district on the adoption of a more rational, and humane, and profitable way of managing our sheep.

**CONNECTED WITH CUTANEOUS DISEASE.**—Girard speaks of palsy as very common among the sheep in various departments of France, and in Germany; but he connects it with other complaints—the sheep-pox, of which fortunately we know but little in England, and the scab, of which we occasionally see too much. He describes it as preceded by intolerable itching. The animal violently rubs himself against every object with which he can possibly come in contact. He works himself into a perfect rage and fever; he stands and shivers from head to foot, and sometimes falls into an epileptic fit, but of no great violence or lengthened duration. This pruritus commences about the tail and the croup; it rapidly spreads over the loins and the back, it extends to the head, and reaches to the very feet. He bites himself, he tears away the wool, he abandons himself to every kind of violence. By and bye his intellect is evidently affected—he has a wild and wandering look, and the slightest disturbance frightens him beyond measure. He strays hither and thither; he stops every moment in order to bite or rub himself; his walk is vacillating, staggering; the uncertainty of gait is sometimes referable to the four extremities, sometimes to the hind ones, and, at other times, both are affected. Every motion is attended by an increasing degree of uncertainty. He falls on his knees; he falls completely down, and remains a considerable time before he is able to rise; at length he falls to rise no more, but even then he seeks for something to eat, and, if it is brought, he will live in this miserable state eight or ten days.

**PATHOLOGICAL EXPLANATION.**—How shall we account for the paralytic state of the patient, which forms the closing scene of this sad disease? Is the nervous system completely exhausted by the long continuance of intolerable irritation? I can readily

conceive of the spinal cord and its membranes sharing in this intense inflammation, spreads everywhere around them, and invading every part to which the nervous fibrils are sent. I can conceive this ultimate exhaustion of sensorial power to be the natural or necessary consequence of cutaneous, and, perhaps, deeper seated erythism like this.

**THE REPELLING OF CUTANEOUS ERUPTIONS.**—Among the causes of palsy in the human being is the sudden repelling of extensive or acute cutaneous eruptions. We have occasional elucidations of this in our country. There is no more effectual remedy for the scab in sheep than the mercurial ointment: I was going to say that there is no other remedy on which dependence can be placed. It needs not, however, to be used in the concentrated state in which it is generally applied. It needs not to be the strong mercurial ointment of the Pharmacopœia. Mixed with four or six times its weight of lard, it may not relieve the disease so speedily as in its concentrated state, but it will do so more perfectly and more safely. I have known many instances of ptyalism and nervous affection from the undue use of mercury, and more especially from that of arsenic. The French, however, pay little attention to this, and when palsy eventually occurs, they attribute it to the cutaneous eruption, and not to the remedy. They consider the eruption as the first stage of or preparatory to the appearance of palsy, and they bleed and physic, and use turpentine embrocation on the spine.

**STRANGE GERMAN OPERATION.**—The Germans have somewhat of the same notion, and they resort to a very singular and cruel method of cure. They judge, and perhaps rightly, that this is a disease not simply of the integument, but that the subcutaneous cellular tissue is, if not essentially, yet speedily involved. They make an incision into the skin of the back at the posterior region, and introduce into it a canula; and then, by hard blowing and some manipulation, they separate the skin from the subjacent tissue, and then inject oil of turpentine. They excite speedy inflammation, and enough of it too; and the affection of the integument is relieved or disappears, and the spine never becomes affected. This seems a butcher-like way of proceeding, and I do not think will be speedily adopted in our country; but we may perhaps derive from it a useful hint with regard to the application of stimulants in some cases of scab (for there are several distinct kinds of it), and also the possible efficacy of blisters along the spine in cases of palsy of this patient: I acknowledge, however, that I should not expect much benefit from them, for I should rarely, if ever, be able to produce vesication.

**OUR PAIN.**—On the whole, our efforts must be directed to the prevention of this spinal affection: our prognosis should always be very guarded, or distinctly unfavourable, and our advice should usually be to cut that short which we may probably be unable to cure.

**DESIDERATUM.**—Here again we sadly need—the sheepmaster and the country demand—the establishment of experimental schools. Until we have them, we shall know little of the cause and the treatment of many a disease of cattle and of sheep, for we have no right to sacrifice the property of our employers, nor are we called upon seriously and inconveniently to sacrifice our own.

**AMERICAN CHEESE.**—We observe, from the American papers, that there was presented, on the 1st of January last, to Mr. Jackson, President of the United States, by a Mr. Thomas S. Meachan, of Washington, a cheese weighing no less than *fourteen hundred pounds!*

## ENGLISH AND RUSSIAN TALLOW.

(From the Portfolio.—Ridgway.)

At a time when there is so much disposition shewn by the legislature and the community at large, to devise some measure of relief for the Agriculturists, without injuring the commercial operations on which the prosperity of the nation, and, consequently, of the agriculturists themselves, immediately depends, we are surprised that attention has not been directed to the agricultural produce imported either at a low rate, or duty free, from countries which tax, or wholly exclude our manufactures, which they are only encouraged to do, by our free admission of their produce to compete with our's, while they refuse the corresponding facility to our manufactures.

The rate of and mode of levying duty on tallow and soap, is at present most injurious—an expensive and cumbersome, and withal inefficient organization for collecting the excise duty on soap, injures that manufacture by its regulations, while it diminishes the revenue by its costliness. The export commerce of soap is arrested—the home consumption is restricted; tallow from Russia competes with our home supply, or at all events by its comparative cheapness allows Russia to increase its price by various modes before it is exported. The repeal then of the excise duty on soap, and the substitution in its stead of a heavier duty on tallow, would greatly improve the soap manufacture, afford a temporary advantage *directly* to the agriculturists, and if in the long run the price fall even lower than it is at present, which it is to be hoped it will, still the home grower would occupy a relatively superior position. If such a measure were adopted, we see other great political and commercial consequences which indeed are our inducements for entering into the subject, namely, the blow that thus will be struck at the *political projects* of Russia, and the new commercial field that will be opened by the simultaneous reduction of the duty on oil—these questions we have already treated and will return to again, for the present we will address ourselves to the specific proposition which we now put forward, which is, to impose a higher duty on foreign tallow, and to do away with the excise duty on soap if possible.

1st. The inevitable effect will be to enable the cattle-feeder to have a higher price for his cattle, as the quality of home-fed tallow is much superior to foreign, and the price of the former is only kept down by the great importation of the latter, which is used to mix with our own tallow.

2nd. As soap and candles are articles which form large items in the expenditure of all classes, it would be advantageous to have them made as cheap as possible; and they will certainly be cheaper if the whole duty were placed on tallow, because the expense of collecting any excise duty is much heavier than a customs one; and the various restrictions necessary for the former, renders the soap-maker's process much more expensive than it would otherwise be.

3rd. The increased cost occasioned, as we thus shew, is an immense barrier to an increase of export of soap and candles, which might (if the duty on them were lower) extend to five times the present amount, for, in consequence of our high prices of these articles, France supplies nearly the whole coasts of the Mediterranean and a great portion of America. This is a question of first-rate importance in a commercial point of view.

4th. The removal of all duty on soap, will form a saving to the country in the collection of revenue, equal to about 50,000*l.*, being the expense of collecting the soap duty.

5th. The increase of duty on tallow, will, no doubt, drive soap-makers to find other oleaginous substances as substitutes, as soon as our own produce of tallow is not sufficient; and in this search they will encourage the importation of cocoa-nut-oil from our own colonies, of palm-oil, and olive-oil, from countries which take payment entirely in our own manufactures, while Russia, from whence we draw all our foreign tallow, takes only a proportion of the value of it in our manufactures, and those the least profitable to us:—even this branch of export to Russia, is gradually decreasing.

The objections that are generally urged against any increase of duty on tallow, are—

1st. That it will prevent the importation of foreign tallow altogether, and thus raise the price of soap and candles.

2nd. That it will thereby curtail Russia's ability to take manufactures from us, as she depends on her tallow for payment to us.

3rd. That any increase of duty, to the extent we advocate, would be a total reversal of the principles of free trade, which our present, and many past governments have held out to foreign nations as the main feature of British commercial policy.

With regard to these two first objections, we would ask any person at all acquainted with the trade of Russia, whether it is possible for Russia to find a market, in any part of the world, for the tallow she supplies to us:—we assert that she cannot:—we also assert, that from the nature of her system of agriculture, the Russian farmer must continue to feed cattle and to make tallow;—that, if the duty we lay on here, should force down the prices in Russia, all that will happen, will be, that instead of there being five or six profits made out of the tallow, for as many different dealers, brokers, melters, and merchants, &c. through whose hands it passes before we get it, the first producer will find means to sell it more directly (as it is sold in every other country from whence we get any) to our own merchants, and thus those various profits and various local imposts and export duties (which the Russian government authorize and demand) will be saved to our community, and instead of falling into Russian hands, will fall into our own revenue.

But even supposing that the Russians cannot supply us with tallow at the same rates, we deny that tallow is an ingredient which, of necessity, we must have for the manufacture of soap. Cocoa-nut, palm and olive-oil are all better and all cheaper substances, except the latter, which is incontrovertibly the best of all, which we are prepared to shew may be got at rates 30 per cent. under the present prices, if it should become an article in which British capitalists, with their enterprise, would find (from increased consumption) enough of scope for the employment of capital. If we want any proof of these assertions, we find it in the following facts, which the statistical returns will prove:—A very few years ago neither palm nor cocoa-nut oil were used in this country; whereas now the annual consumption of the former is upwards of 13,000 tons, and of the latter 400 tons, and is increasing every year. As to olive-oil certainly none is used here for either the purposes of making soap or for lighting, because, like

those other articles, our manufactures have not yet found it cheap enough, and the reason for that is, that the high duty (lately, though not sufficiently lowered)\* discouraged mercantile speculators from seeking for extensive fields of supply at cheap rates, which fields are to be found in many parts of Europe, Asia, and Africa, but principally in the Turkish provinces, if once there were inducements held out to import the article largely. We need give no better proof of the correctness of this assertion than by mentioning the following facts:—Great Britain imports of olive-oil only about 8,000 tons annually (two years ago only 6,000 tons), at prices varying from 50*l.* to 60*l.* per ton, while the French import annually from 30,000 to 35,000 tons, at prices fully 15 to 20 per cent. lower. Out of this quantity, they apply more than 20,000 tons to the manufacture of soap, which soap, being infinitely better than British soap made from tallow, they export to Turkey, Egypt, Greece, and many other countries, both in the north and south of Europe, to which we do not export any soap at all, and have, besides a preference given to, and a greater demand for, their soap in the markets of South and North America. If any one reason beyond another exists for the earnest desire of France has shewn to secure to herself so much of the Mediterranean coast of Africa, it is because she finds there such valuable sources of supply of olive-oil, which, in its raw and manufactured state, she supplies to other nations.

It is impossible to place a limit to the immense supplies which we may find of olive, palm, and cocoa-nut oils, which at this moment would be used for the great majority of the purposes to which Russian tallow is applied, were it not for legislative enactments. The former would be found in the Asiatic, European, and African provinces of Turkey, the Morea and Greek Islands, Spain, and Portugal, where now a large proportion of the olives rot on the ground. The two latter articles, for making oil from, are to be found in endless quantities in Western Africa and India—all these countries take our manufactures readily, and *want* but opportunities to take these to a greater extent, and to give us their products in return, while the country which supplies us with tallow takes from us little else than yarn she needs, to supply her manufactures, to exclude our stuffs not only from her own empire, but from the Asiatic market, and that little only until she can supply herself with yarn of her own manufacture. But we have been led away from the consideration that our own home supply of tallow would by any increase of duty on foreign be augmented very largely; *because it would then answer the farmer's purpose to keep a greater proportion of live stock.* In fact, within these few years past, improvements in agriculture have greatly increased the home supply of tallow, so much so as to cause a decrease in the consumption of foreign tallow throughout the kingdom. But for this extraordinary home production, during the last year, the price of tallow must have risen to an alarming height.

We have now to answer the third and last objection. It is true that any increase of duty on a

\* The reduction is, however, only nominal, the duty on Gallipoli oil having been retained, and no arrangement having been made with Turkey for the exportation of oil from that country, though the tariff shows a reduction of duty per ton of 4*l.* 4*s.*, yet, in fact, that reduction is inoperative.—See Portfolio, No. XI.

raw article is contrary to the doctrine of free-trade. Of that principle we are the decided advocates, we do not question it, but we state the grounds upon which we conceive this measure is advisable; happy would it be for this country if neither laws, nor regulations, nor duties, interfered with the exchange of man's industry and nature's bounty, but involved as we are in the toils of commercial legislation, must we bear the burden they inflict without taking advantage of the chances they offer?

It is argued that we ought to keep all our import duties as low as possible in order to induce other nations to lower theirs in favour of our manufactures. Well, we have kept our duty on tallow low ever since the last war; and what has been the result? Have our exports increased to Russia, from whence we draw our almost sole supply? The very reverse is the case upon the aggregate, for they have been annually decreasing, except on cotton twist, and some dye stuffs on which we have the least profit, for whereas in 1827 Russia took from us cotton and woollen *manufactures* to the value of upwards of 300,000*l.*; she in 1834 took of the same goods in value only 175,000*l.* Even cotton twist, the increase is very trivial, for in 1827 the export value was 930,000*l.* and in 1834 1,030,000*l.* This article she takes for her own manufactures, which she sends to compete with ours in her Southern Provinces, in Persia and Eastern Turkey. During all these years, and ever since the last war, our importation of tallow has been increasing, and for thirteen years past, the price has also increased; thus in 1820 (from which year only we have returns) the importation was 40,000 tons, in 1834 it was 65,000 tons. In 1822 the price averaged 35*l.* per ton; in 1835 it averaged 43*l.* per ton, thus showing the necessity of seeking for the supply of oleaginous substitutes from some other countries. It is remarkable fact, that while nearly thirty articles which form large items of consumption in this country have all fallen in value during the last ten years, at a ratio varying from 40 to 50 per cent., tallow has increased in price fully 12 per cent., notwithstanding all the decrease of consumption from the introduction of gas, by which also oil has been rendered so much cheaper. Be it known too that the Russian government assists the Russian merchants in holding back their supplies of tallow in order to keep up the price in this country.

It has been argued in favour of low import duties, that although any country trading with us may not take our manufactures in return for her produce, still as she may apply herself with them elsewhere at a much greater cost, she is annually a loser of the difference between that greater cost and what she would pay us, and that thus in time she will see her error and turn to us at last. We ask, whether this is a sound doctrine in reference to countries that are hending all their energies to become manufacturers themselves, and that have facilities to become so by having labour and fuel cheap.

In Russia and Prussia, where this is the case, it is not the demand of the public which can induce the government to alter their tariff in our favour; for these governments are themselves the proprietors of all the new manufactures which they are supporting with all their power, and are supplying with every species of information and new invention, got from this country, by having agents regularly established in all our manufacturing districts, whose whole business is to obtain

sketches, models, and details of every new process or improvement.

In a former article we have endeavoured to show that, by raising the duty on Russian produce, you reproduce the circumstances that preceded the death of the Emperor Paul, and that forced Alexander to abandon the continental system of Napoleon—that is, that you raised such an opposition of the nobles to the government, that a continuance of the policy which had interfered with exportation to England became impossible; so now, by such a measure, Russia would be brought to a state of absolute dependence on England, and must of necessity abandon her aggressive projects. England, it is true, possesses ample means of coercing Russia, but the difficulty is to get such a government as ours to do any thing at all. Now, here is a case where various internal and powerful interests are deeply involved, and where, for once, the views of the agriculturists coincide with measures conducive to our external security.

**LORD ASHBURTON AND THE CENTRAL AGRICULTURAL SOCIETY.**—The following extract from the *Chelmsford Chronicle*, refers to observations made with the authority of the Central Society, on his lordship's speech upon the appointment of the Lord's Committee upon Agriculture:—

"Now we do not intend to argue on the correctness of Lord Ashburton's opinions in this respect—on political questions, it is well known, we often dissent from him—but we think it an act of justice to observe, that though he is "no longer dependent on the honest votes of the Essex farmers," he is not so dead to their interests or so intent on guarding his "breeches pocket," as the currency writer would imply. We have the best authority for stating that his lordship has given strict commands to his agent in this county, to reduce the rents of his tenants to that point at which he conscientiously believes they will be enabled to cultivate the soil at a fair remunerating profit. "Investigate the subject closely"—says his lordship—"but give the tenant a certain and effectual reduction." This shows that his lordship is at all events sincere in his opinion, and is prepared to back it, as a landlord who deprecates the currency question ought, with sacrifices from his own rent-roll. In conclusion we must observe that this bespattering with contumely every man who will not consent to an alteration of the currency, is but ill calculated to insure the stability of the Central Agricultural Association, or promote the objects for which we thought it was originally established.

The facts having been disputed which we lately adduced in forming a comparison between the British and French farmers, stating that though the English currencies of Wheat exhibited a greater depreciation than those in France, yet the prices of rye, barley, oats and pulse, have to the utmost participated in the latter kingdom, in the decline of wheat; live stock also realising proportionably less rates, while in England summer grain live stock and wool, have been selling at much higher relative prices than those of wheat; we have now annexed the comparative currencies of grain and meat at Paris and London, taking even the high quotations of wheat for the past week, which fully corroborates the previous statement.

**PARIS.**—Wheat per qr., 25s 2d, 29s 9d, to 35s 10d; Rye, 14s 7d, to 17s 9d; Barley, 14s 7d to 16s 2d; Oats, 14s 7d, 17s 1d, to 19s 2d.

**LONDON.**—Wheat per qr., 39s, 45s to 52s; Rye, 32s to 36s; Barley, 23s to 36s; Oats, 18s, 24s, to 28s.

Comparing the highest price realised for meat in England, and the rates in France, it appears that in London beef is 1s to 1s 2d per stone dearer; Veal 10d to 1s 2d; Mutton, 4d to 6d, and Pork 1s 6d to 2s per stone.

## ON WEEDS\* IN CATTLE.

BY MR. M. POTTIE, YOKER, NEAR GLASGOW.

(From the Veterinarian.)

In my practice there occur a great many cases of what are termed weeds in cows. The principal part affected is the udder; but the disease is not the same as the ordinary garget, or udder clap. Garget begins in the udder; weed is preceded by some internal commotion. The mode in which I treat this latter affection with most success is rather at variance with the rules prescribed by the prevailing doctrines of the present day; and it is, therefore, that I beg to offer one or two brief remarks.

The cow takes a shivering fit, which may last from two to twelve hours. This is succeeded by a hot fit. The temperature of the body rises, sometimes slowly, at other times quickly; the cow hangs her head, and refuses food; her eye is red, pulse quick, breathing a little hurried, and the back is arched. The cow, in short, is fevered. Before the hot fit is established, or very soon afterwards, the secretion of milk ceases, and a portion of the udder is hot, painful, and swollen. Subsequently an abscess forms in the udder, or one or two quarters become cold, black, and insensible. A large portion is dead; upon cutting into it no blood escapes, and no pain is expressed. The intensity of the fever, and the disorganization of the udder almost invariably bear a certain relation to the duration of the cold fit. The longer the cow shivers, the more serious are the ultimate consequences.

When I first commenced practice, I tried bleeding, purging, and the other auxiliary remedies against inflammation; and I dare say I frequently mitigated the violence of the disease: but I soon found that these measures would not arrest it. They would not prevent disorganization of the udder. Now, if the case is obtained in the beginning, while the patient still shivers, a single drench is all she requires. In a quart of hot water, or hot milk, give one ounce of the seeds of the caraway, and as much powdered ginger. Clothe the body, and give little food. The cow, in general, will be well next day. But if there be any dulness or constipation, let a purgative combined with an aromatic be given, and as much cold water as the cow will take. But let her not stand exposed to any current, especially after drinking. Chilled water is safer, but cows will seldom take enough; and rather than this should occur when purgation must be established, it is better to give the water cold, and drive them about for a little after drinking.

If the cow has been shivering several hours, and the udder has become affected, still the stimulant may be given. If pernicious at all, it is only after the fever is fully developed. After awhile it may be prudent to bleed, and it is good to give a purgative along with the stimulant. But if the udder has become affected, however slightly, these means will have little efficacy without much attention to the diseased organ. It must be fomented in earnest. Fomentation, as usually applied in cases of this kind, is a mere mockery. In the first place, the water ought to be so hot that the hand cannot remain, though it may be dipped in it. A large bucketful of this should be placed under the udder, and its

\* By "the weeds" the Scotch practitioners mean acute inflammation of the udder when the term is applied to cattle, and diffused inflammation of the subcutaneous cellular tissue in horses, and particularly in colts.—EDR.

temperature maintained by frequent supplies. Then it must be applied for an hour at a time, three or four times in the course of the day or night. A blanket or large woollen rug, and two persons to hold it, are requisite. Place one on each side of the cow, each having hold of the cloth, folded into a convenient breadth; dip the middle portion into the water, and let it be tightly and closely applied to the udder, so as to suspend as well as foment it. It need not be lowered oftener than once in eight or ten minutes. At the end of an hour, the udder and adjacent parts should be well and quickly dried with cloths. The tumefied portion of the udder should be rubbed with ammoniacal liniment, or with strong spirits: I sometimes use whiskey. Until the next fomentation, the rug or blanket is to be tied over the udder or loins, so as to suspend the udder. The wet warm cloth is to be covered by another, to prevent evaporation. The mild stimulant may be applicant after every fomentation, and the repetition of this process must be proportioned to the intensity of the inflammation. When the animal is tractable one person may apply the fomentation by tying the blanket over the loins and injecting the water under it. Poultices are not often useful. To do good, they must be large and moist; their weight is not compatible with complete suspension of the udder.

I know not the cause of weed. It is most common after calving, and during wet, changeable weather. Exposure to cold is the immediate cause of the shivering fit.

### TO THE EDITOR OF THE MARK LANE EXPRESS.

*Glasgow, March 7th, 1836.*

SIR,—Having received numerous inquiries from the South about wheat, and it not being convenient for me to answer them separately, I have thought of this method of answering them all at once, providing you will be kind enough to favor this with a corner in your most valuable paper; the parties cannot fail to observe it, being all regular readers of the Mark Lane Express.

In the first place, I cannot but congratulate you on the good weather you seem to enjoy in the South, it is very different here,—almost constant rain or snow, with occasional touches of frost, are what we are experiencing.

As regards the last year's crop of wheat then, except in the South of England where the weather was dry and warm, it turned out a very inferior one, as regards quality; in the North, and especially all over Scotland and Ireland, the season was generally cold and wet, and the wheats got in in inferior damp condition, a considerable portion is so much out of condition as to be fit only to be given to the cattle; in this quarter we are obliged to procure supplies of good dry samples from the South to mix with; the low price, too, of wheaten bread, in comparison with that of oatmeal and potatoes, has caused a great extra consumption of that article, so that before another harvest I fear we shall have but short supplies and high prices. Shall we be relieved, then, when the next harvest is reaped, should the season prove favourable? Not as regards wheat, for the usual quantity of it is not sown, the low price of the preceding years has induced the farmers to sow other sorts of grain and produce this season in preference; I speak of Scotland and Ireland particularly. Take, for instance, the Linlithgowshire Agricultural Report for last month as a specimen; it says, "The young wheats, which do not much exceed one-third

of what was sown last year, look sickly from the long tempestuous wet weather; from these circumstances, and when all the other great staple articles of the kingdom are at such high rates as to afford an opportunity of investing money in them to advantage, it is rather surprising that more should not be doing in wheat, for notwithstanding the late advance from the low point to which it had reached, it is still at very low rates, and with an inferior present crop, great extra consumption, and a different crop in prospect, I should say that there is no article so safe at the present rates, or one under all circumstances more likely to yield a handsome return for the money invested than good wheat.

I remain, yours, respectfully,

A CONSTANT READER OF THE  
MARK LANE EXPRESS.

**TURNIPS.**—There are three most essential requisites to obtain a good crop of Swedish Turnips. First, the land must be congenial to the growth of them—clean, full of mould, and not very clotty. Secondly, a proper quantity of good manure, well covered in the land, and not exposed to the atmosphere so as to lose its nutritious qualities. Thirdly, seed raised from a sort proved to be good, drilled at the proper depth and distance, and at the proper season. With these indispensable requisites, with favourable weather, and if the plants are not injured by the fly, and well hoed (twice or thrice, if necessary,) a good crop of Swedish turnips (which is of greater value than it is generally supposed,) is almost sure of being obtained; but if there is a deficiency of any of these requisites, it will be advisable to sow common turnips, and if there should be a deficiency of most of them, not to sow any; for half a crop of turnips, with a full crop of weeds, puts the land into a bad state, and by expenses takes money out of the farmer's pocket for as wasteful purpose as if he ploughed the cash into the land. Swedes wanted for stall feeding should be sown the latter end of May; for sheep feed they may be sown as late as Midsummer; common turnips from Midsummer to the middle of July. The greatest weight of Swedes is to be got drilled on ridges, twenty-seven inches asunder, and left twelve or fourteen inches apart. For sheep in the spring, drilling on a flat surface, in rows fourteen inches asunder, care being taken that the manure is well covered, answers very well, and the turnips are not so liable to be injured as Swedes even sometimes are, during a winter with a repetition of frosts and thaws. By having nearly twice as many turnips on the flat as on the ridges, it might be supposed that a greater weight might be produced. I have tried the two ways, both sown at the same time, and found the ridged turnips so much larger, that they produced the greatest weight per acre. A Swedish turnip is doubled in weight by a small increase of its girth.\* I have often been somewhat incredulous as to some of the reported weights per acre of Swedish turnips; for having been for some years past in a sweepstakes with Lord Althorp, I consider, from the weights we have produced, five and twenty tons per acre a good crop for regular tillage land that has, the previous year, borne a crop of white grain. I recommend that land intended

\* With Northumberland ridges a certain degree of fallowing is carried on during the growth of the turnips. As to a broad-cast crop of Swedes, I think that quite out of the question with a good system of farming.

for turnips—but think it not so necessary for corn—should be ploughed up at the beginning of winter; and, if it is free from couch and intended for Swedes, a small quantity of dung ploughed in (not too deeply), will produce good effects. After numberless trials to prevent the ravages of the turnip fly, the only way which I found at all successful is, to collect all the weeds I can find on the farm, and lay them in heaps all round the field sown with turnips; on the plants coming up, and showing the least appearance of being attacked by the fly, the heaps to windward are set on fire, brimstone is put in the fire, and thus the strong smoke which is very offensive to the insect, is wafted over the crop. If this is continued till the turnips get into rough leaf they will be safe. No one has yet been able to prove where the fly is produced. Some assert that it comes out of the earth; others, that it is bred in the seed. I made an experiment two years ago, which satisfied me, and all those I showed it to, that it comes out of neither. When my turnips were sown, I covered a piece of land with a large square of thin gauze, which I so fastened down that no insect could creep under it. Under the gauze, the turnips were not touched by the fly; all round it, they were eaten and destroyed by it. Where the insect is generated, is not known; it flies in the air like other insects, and although it may appear strange to us, it has the power to discover that there is food for it as soon as the turnip leaf appears above the ground. Most Swedish turnips run too much to top, and produce many worthless fangs at the root. By getting, a few years ago, seed from Sweden, I have got a kind that produces a small top, with tap root only; and having widely circulated my seed, the Thorpeland Swedes are well known in many distant counties. Each year I sow a small quantity of any sort well spoken of, but have not yet met with any I like so well as my own.—*Hillyard's Summary of Practical Farming.*

### MANGEL WURTZEL.

*To the Editor of the Irish Farmer's and Gardener's Magazine.*

SIR.—As I have these last few years perceived that the Irish farmer is beginning to appreciate the value of winter green crops, and to understand their mode of cultivation, I hope you will consider a few observations on mangel wurtzel worthy of notice. Having grown a great variety of those crops, I have fully ascertained the merits of each respectively. Mangel wurtzel merits a very high rank among bulbous roots, not only for its nutritious properties, but from being much suited to milking cows, and if judiciously given, not injuring the flavour of the milk. It is also a valuable root for feeding cattle, and will also feed store pigs, with a small proportion of steam potatoes occasionally. There seems, however, to be some difference of opinion as to the relative value of this crop and Swedes for these purposes; some maintaining that the former is the best, and others the latter. For myself, I think the choice should be made according to the nature of the soil on which these winter greens are to be sown; if strong, deep and loamy, mangel wurtzel will be most productive, but if gravelly, light, or porous land, the crop will be uncertain, and not of half the weight or produce as if sown with Swedes; it also would require double the manure to raise it. No doubt there is more risk in the Swedes being cut off by the fly, which makes it a more precarious crop than mangel on any soil; but this enemy is not so destructive in our climate as it is in England; therefore, if the

land be suited to its cultivation, this objection can be counteracted by good management, which I purpose more fully to point out in a communication to you next month. My object at present is to show on what soils mangel may be planted with success; the time and mode of doing this work, also the treatment of the crop while growing.

As I have stated, strong and deep land is most suited to this plant, but any soil, if sufficiently fertile, may, by deep ploughing and a sufficient quantity of farm-yard dung, be made to produce a fair crop. The matter then to be considered is, whether to embark on this extra expense, in order to attain mangel wurtzel on inferior soils, or to cultivate Swedes or other turnips, which could be raised on such soils by a much less quantity of manure, and in many cases, by peat ashes, bone dust, burnt clay, or a compost heap, none of which will be half so expensive as farm-yard dung. I am decidedly of opinion, that the crop should be suited to the nature of the soil; otherwise, it is not only precarious, but will seldom remunerate the cultivator. Mangel wurtzel is a more exhausting plant than Swedes, and the necessity of carting it off the land for consumption, makes it still more so; whereas, Swedes may be consumed by sheep on the land, and consequently much improved in this way. On rich and deep soil, however, I have always found mangel much more productive, and is still more so from the large quantity of leaves it throws out in the autumn, which is likewise excellent food for milch cows. Indeed it may be safely calculated, that this crop will yield one-third more food than Swedes on good land.

It appears to me, that the great error which farmers fall into in Ireland, is sowing mangel too late, and Swedes too early. The seed of the former should be put into the land in March, and the latter not till the end of May, or early in June. I have ascertained this fully from the most practical farmers; and especially as regards Swedes, the time of depositing the seed must be observed, to ensure a good and productive crop. If sown early on rich soils, the leaves become mildewed about July, by which the plants are much checked in their growth, and on arid or light soils the bulbous root will get hind-bound and stunted, and will not afterwards grow to a good size; the rind will also become thick, and the bulbs mis-shapen.

The best mode of managing a crop of mangel is to prepare the land in drills, about three feet asunder, in the same manner as for potatoes; and when the dung is covered in, and the drills rolled down, to dibble the seeds, two in each hole, at six inches distance in the drills, and if on strong land to close them with a garden rake, or if on light soils with the roller. This will ensure sufficient plants, even should an unfavourable season follow, which, when strong enough, should be hoed out at twelve inches distance, leaving the plants to stand singly.\* During this process all weeds should be cut away, and if the land be foul with couch or other root weeds, the horse hoe should be used in the furrows, and the soil taken from the drills, and then thrown back

\* Great care should be observed not to deposit the seed of mangel too deep—half an inch on strong, and less than an inch on porous soils, will be sufficient. An implement is easily constructed for this purpose, to make four holes at the same time at the top of the ridge; or a common dibble may be used with a guard across, to mark the depth the seed should be put in, and thus the entire can be evenly deposited.

when the weeds are destroyed. If this is effectually done, a third hoeing will seldom be necessary.

The leaves from mangel may be taken off in the latter end of September, and the roots will throw out fresh ones before the severity of the winter. These roots do not resist the severity of frost so well as Swedes, therefore it is necessary to draw and stack them before they receive any injury in this way. The tops should be cut off within an inch of the crown, and either ploughed into the land for manure or given to the milch cows, or pigs. I have been informed by an experienced agriculturist, that when the roots are given to milking cattle, about two inches from the crown should be cut off, as it is this part of the bulb that causes bitterness in the milk—and this I think is worthy of attention. It is however advisable to give these roots in small quantities, at the commencement, using salt at the same time, and to correct their properties, by giving, at intervals, bran mash, grains, steamed potatoes, or other prepared food; as mangel in large quantities will no doubt be most injurious to the taste both of milk and butter.

Mangel wurtzel, steamed, will not injure the flavour of the milk so much as if given raw, and in this state is better food for pigs, some bran or dry food being added. It is not however considered near so nutritious or wholesome for sheep, nor so good for working horses, as Swedes or carrots; but, as our soil and climate are much suited to its growth, there is every inducement for its extensive cultivation. In cases where the seed cannot be sown in March, where it is to remain, it may be sown in a convenient patch of ground, and transplanted in May, and by this mode excellent crops are obtained, especially should a dripping season follow after the plants are set out. I have also often tried this system with Swedes with equal success.

I have not cultivated the yellow mangel wurtzel; but from what I can learn, it is not so productive, nor does it keep so well as the red, late in the season. The quality is, however, more saccharine, which makes it more valuable for feeding cattle. It may, therefore, be advisable to try it in a small proportion on deep and fertile soils, on which alone it should be cultivated.

AGRICOLA.

## ON BONE MANURE.

BY MR. M. M. MILBURN.

It has been said, that while our manufactures are constantly advancing, and improving, our agriculture is stationary. Now never was assertion more unfounded, and unsupported by facts. Any individual who has impartially examined the history of agriculture for the last twenty years, cannot but observe, that the greatest improvements have taken place, both as regards the management, the production, and the quality of agricultural produce. It is true, that further than the taking up of commons, and the reclaiming of wastes, the land has not been increased in extent, as the machinery of the manufactures has, but the labour has been diminished, other produce has been increased very considerably, and land, once thought barren and worthless, is now productive and fertile. The mode of management too, has undergone a complete revolution; materials and combinations, once wasted as useless, have been found to possess the greatest nutritive and fertilizing powers, and rendered available to agricultural uses. To nothing does this remark apply more forcibly than

to bone manure. Well may be remembered the ridicule which was cast on those who used it when first introduced, and the wonder of their neighbours when they saw its effects, and although that disposition to ridicule is more subsided, yet many are still remarkably sceptical as to their utility, and consider a trial of them to be a risk of the failure of the crop.

Waiving for the present the relative value of farm-yard and bone manure, there is a striking difference in the carriage, and laying the one upon the land, as compared with the other. Let it however be understood that what I say applies to the soils generally denominated "turnip and barley land" only, as to say that *any* manure, is equally favourable to *all* soils, is to claim for it a pre-eminence which is in fact due to none yet discovered, nor indeed is likely to be due to any that ever can. To manure land with farm-yard manure is a serious consideration as regards cartage, both in reference to the expenditure of time, and labour;—it is to be carted from the yard to the mixen, there to be turned; then to be led and spread upon the land. The farmer too is anxious that his land shall be manured in as little time as possible after it is ploughed, lest the drought should so penetrate the soil, as to prevent the germination of the seed, but let him use whatever activity he may, in using putrescent manures, it must occupy considerable time. Here then appears one of the advantages of bones; a pair of horses will bring at one time as much as will manure five acres of land, and can with the seed be drilled upon the land in three hours' time. Bones possess another advantage over farm-yard manure, and it is this. Dung, especially when fresh, as recommended by Sir Humphrey Davy, lightens the earth, and exposes it to the effects of the drought; a serious defect in a dry season, while the difference produced by bones is scarcely perceptible. The farmer may however justly urge that he has his manure, and it must not be wasted, while he has to buy his bones at a rate considered dear; this is quite true, but it is equally true, that it is by far too common for farmers from mere parsimonious motives to "make their manure do," and lay out as little as possible in the purchase of any other, forgetting that this is eventually his own loss; let him use his manure as far as it will go, and let him lay it on pretty liberally,—let him purchase bones for manuring the rest each alternate rotation, and he will find himself very considerably the gainer.

Hitherto I have gone on the supposition that bones and dung possess equally fertilizing powers, but I think experience has proved that upon light sandy soils, the former has a most decided superiority, and particularly so when the soil slightly inclines to peat. To enter into a chymical disquisition of the properties of bones, would be uninteresting to the new practical farmer, I shall not therefore, attempt it, in the present article, but endeavour to show to the practical man, from actual experiments, its effects upon different soils, and in relation to other manures.

The first experiment was made upon a shallow sandy soil, inclining to moor. The bones were "half inch" and drilled upon the land, along with the turnip seed at the rate of two quarters, (sixteen bushels,) per acre, along with a small quantity of quick ashes. Upon another part of the same field, and adjoining to the above, two or three lands were manured in the usual way, with farm-yard manure. I cannot precisely say the

weight of the manure laid upon the land, nor indeed is it material, but as a proof that it had a sufficient quantity, I need only say that the person who spread it upon the land, had very strong prejudices against bone manure, and laid on rather more, than less, than usual, declaring that "he would give them a fair trial." The result was, that the turnips sown with the bone, had the most decided advantage over those sown with the other manure, inasmuch as the furrow to which it extended could be distinctly marked out. It has been said that bones are valuable as a manure only to the crop immediately succeeding their use, and that they do not affect any future crop, forgetting perhaps, that when the sheep-farmer has obtained his turnip crop, he has effected his purpose, as the eating of that crop on the land is the best management the soil can receive. Now, the barley crop that succeeded the turnips in question, was also decidedly superior to that grown on the dunged part of the field, and much excelling any ever grown upon the land previously, and the same distinction in favour of the bones was perceptible even to the clover ley which followed.

The second experiment was made on a sandy soil, rather inclining to gravel, and having a considerable portion of iron in its composition. The bones were drilled, at the same rate, (sixteen bushels per acre), without any ashes, or other manure; and in the same field some seed was sown with well rotted dung, and the rest with a compost of fresh soil, and stable dung well mixed. Over the former, the bones had considerably the preference, but between them and the latter there was no comparison in their favour.

Experiment the third, was made on rather a stronger and deeper soil; more tenacious but not clayey; drilled at the same rate per acre as in the former case, and also without any ashes, &c.; and on an adjoining piece of ground, in the same field, the turnips were sown with manure in its fresh, unfermented state, as recommended by Sir H. Davey in his lectures on Agricultural Chymistry. The boned turnips here, however, were rather smaller, than in the two former instances, and not quite so luxuriant; but between them and the fresh dunged ones, there was no comparison, indeed they were undeserving the name of a crop. Now the above experiments were carefully made, and with practical views, and occurred in three successive years, and so satisfied was the person who tried them of their value that he now employs them constantly, and never have they been known to fail except in a single instance, when they were taken off by the grub, and to which I shall presently allude. It may be remarked, that in all the above instances, the turnips were firm, regular, and covered all the land, though they were not so large in bulb, as when sown with other manure.

A comparison has been made between home and foreign bones, to the disparagement of the latter; it has been urged that the foreign ones have been laid long in the earth, or bleached in the heats of a continental sun, and are to appearance so dry, as to be almost deprived of nutritive properties; while the former are full of their fat or juices, and to some of them are even attached coagulated blood, and the remains of the muscles. This may at first seem convincing, but in one of the cases above alluded to, they had a fair trial given to them; part of one of the fields in question, was sown with one kind, and part with the other; the difference was slight it is true, but there was a difference, and that in favour of the foreign. A no-

ment's reflection will give a reason for this. All manure must be so decomposed as to separate the fibrous, from the soluble matter, before it can become in a state for acting as food for plants, and all the advantage of bones in the abstract, depend on their fermentation, and consequent decomposition. For the old and partly decomposed foreign bones, are sooner in the state required to become food for the young turnip plants, than those which are fresh, and although in the latter there was a greater quantity of fat, &c., even that, must undergo considerable changes, before it can act as aliment to the plants. What does the farmer learn by this? That if he uses recent bones, he must also use other stimulants to the soil, in the form of lime, or manure, or he must drill them with ashes as they materially expedite the growth of the young plants until they get out of the way of the beetle. Here I may remark, a reason is offered, why bones are the most profitable in light sandy soils. Sandy soils are by far more adapted to decompose any vegetable or animal matter with which they may happen to come in contact, than any other, and the truth of this is proved by the frequency with which they require to be supplied with manure, and hence bones are in such soils more rapidly and easily decomposed, and rendered available for vegetable nutriment.

*Thorpefield, near Thirsk, Yorkshire.*

*(To be continued.)*

SIR R. NEWMAN.—The elevation of Mr. Newman, of Mamhead, to the Baronety of the United Kingdom, has excited the greatest satisfaction in the minds of the liberal party in Devon, without the slightest feeling of disapprobation being manifested even by the Tories. Sir Robert is a man of great wealth, but this is the least of his merits. He is a sound, liberal, and consistent politician, a kind landlord, in the truest sense of the word. Not a rent discounter, throwing back 30 per cent. of that which he knew he could not expect to receive; but regulating his rents by the good old English maxim of "Live and let Live." He formerly represented the city of Exeter for about fourteen years, with a consistent patriotism that has endeared him to the people of that city. He is a man of refined mind and amiable manners, and his place at Mamhead is one of the finest in the West of England. Mamhead Hall, which he has just finished (at an expence of 100,000*l.*, it is said), being one of the most classic specimens of Tudor architecture now in existence. It stands in one of the finest sites in Devon.

BREAD CUTTING MACHINE.—On Friday, we had the pleasure of examining a newly-invented machine for cutting loaf bread, the credit of which is due to Mr. Blaikie, an ingenious gun-maker in Glasgow. It is being exhibited at present in a house in East Register-street. In its machinery it is quite plain and simple; and nothing could well be more easy and satisfactory than its operation. The loaf being placed in the proper receptacle, the operator raises the handle of the machine, when, by a simultaneous motion of the internal machinery, the loaf is shifted forward to the proper place, the size of the slices having been previously determined by fixing the index hand of the regulator at the desired distance. The handle being then brought down, the slice falls into a box beneath. A quartern loaf may be cut in this manner in half a minute; and cut too as smooth and even almost as polished marble, and without breaking it into crumbs, as is unavoidably the case by cutting bread in the ordinary way.—*Scotsman.*



## EXTRACTS FROM A RUSSIAN CORRESPONDENT.

*St. Petersburg, 1st October, 1835.*

Russia is essentially a new country, presenting inexhaustible resources for agricultural enterprise: her territory extends beyond the region of vegetation northward to the genial clime of the silk-worm and olive, including millions of acres of the finest land untracked by human footstep—even a very great proportion of the vast domain of the nobility is neither pastured nor cultivated. So prolific is the soil under the worst description of management, that a good harvest reduces corn prices below the cost of production. Some years ago I had occasion to visit one of the provinces of the Ukraine, called the Granary of Europe: at that time a quarter of rye cost 3s; of oats, 1s; of wheat, 11s; a fat sheep, 2s 3d; and an ox ready for the butcher, 25s to 27s; 15,000 acres of the finest land were let for the season for pasturing large herds of cattle destined to be killed for their hide and tallow, at 1s 2d per acre; the best beef was ¾d per lb. Formerly large quantities of corn were exported from the Baltic and Black Sea ports—that export is now very limited, as countries more favourably situated by their geographical position, and producing excellent corn, as France, Belgium, Holland, the countries watered by the Rhine, the Elbe, Denmark, Pomerania, Prussia, and Poland, are amply capable of furnishing to Great Britain whatever supply a bad harvest may render necessary, before our inland communications are released from the iron chains of an Arctic winter.

The Russian corn trade is now very insignificant: two failing harvests in our principal grain districts, and consequent high prices, induced foreign speculators to seek other markets; and except what is shipped from Odessa to the markets of Turkey, the Levant, and the coasts of France and Spain, in the Mediterranean, the commerce in corn for export is very insignificant and confined to home consumption. Under these altered circumstances, many of our landed gentry possessing estates exceeding in extent an English county—even Yorkshire—have become sheep breeders, and possess flocks of Merinos varying from 10,000 to 50,000. I know two Frenchmen, who have more than 100,000 fine-wooled animals; and one admirably regulated German establishment, which received some weeks ago 230 pure Electoral Saxon rams as a remount. Besides the low prices and diminished export of corn, other causes influenced the great extension of wool-growing. They are—the great increase of cloth manufacturers in Russia; the transfer of many of the Polish woollen fabrics within the Russian territory, great privileges and encouragements being granted by the present Minister of Finance to manufacturing industry; the settling of many Austrian, French, Prussian, and Saxon sheep-breeders in the fertile provinces of the South; the better management of flocks by Saxon and Austrian shepherds; the better preparation of wool by these foreigners, it being now produced on many estates, washed, sorted, and packed in the Saxon manner, sent by the frontier to the great fairs of Olmutz, Prague, Leipsic, &c., where it is sold, and finds its way to Hamburg and Holland, to Belgium, France, England, and America, as wool of Saxon, Prussian, or Austrian growth. Under such improved circumstances, the demand for Russian wool has greatly increased; and it is quite clear that Russia, ere many years, will become a leading mart for the wool trade of Europe; the cheapness of production, her favourable climate, and vast resources, insure her this important place.

Nothing is wanted but a greater share of knowledge dispersed amongst the majority of her landowners and their agents. Much fine is also sent by the sea from Odessa; a less proportion of fine, and a very large quantity of coarse, are forwarded by St. Petersburg; and Russian wool, scarcely known six years ago beyond the frontier, is now seen in large quantities in the principal markets of manufacturing Europe. There were shipped at this port last year 6500 bales—up to this time the number is trebled. An American, who has already shipped twelve cargoes from Hamburg this season, is now purchasing largely. Besides the immense flocks of Spanish and Saxon sheep in Russia, there are vast numbers of middle and coarse woolled animals found in every province, belonging to small farmers, the peasantry and the wandering tribes of Tartars, Calmucs, and other nomadic races, who exist in the interminable steppes of the countries bordering on the Black and Caspian Seas, and watered by the majestic Volga and other noble streams. These people possess herds and flocks of camels, horses, horned cattle, sheep, and goats, hundreds of thousands strong; and they sell their tallow, hides, horns, wool, downy hair, at the periodical fairs of the interior. The flesh is cast to the winds.

Some small lots of long-wooled Leicester, Lincoln, and Teeswater sheep have already been introduced into Russia, and are doing well. A parcel of Leicester wool, grown in this neighbourhood, was lately sold here at 1s 10d per lb, washed on the sheep. A flock of 600 Teeswater, settled in one of the mildest provinces, is prospering. Samples of this wool have been circulated amongst our leading amateurs, and has found much favour, it being much softer than the Leicester, and equally long. Long-wooled sheep are not wanted here for their Smithfield qualities: the pigeon and the sheep, being typical of holy things, are little eaten by this people. The animal which will find favour here must have a long, heavy, soft fleece. Even a lot of twenty-five Lincolns, bought near Wisbeach last May, were shorn here; they yielded 13½lbs of wool in the grease, and found much favour with our amateurs. Merino wool sells now from 2s to 2s 3d per lb; the superior clips reach 2s 8d; they are very coarse, coarse wool, cleanwashed for export, is 10 per lb. When it is considered that land is almost rent and tithe free, and exempt from taxation—that labour is extraordinary low, and nine-tenths of it done by vassals, you will conclude that sheep-breeding is profitable, when conducted systematically, and by well-informed persons as flock managers. Much however remains to be done before such a consummation. Great part of the wool produced in Russia is sold at provincial and local fairs, whither it is brought in the most filthy state. Much of it is torn from the backs of the animals; then it falls into the hands of the middle-man, who washes, sorts, and packs it for sale to the manufacturers, the wool-merchant, or the exporter. Itinerant merchants contract for large quantities of wool before clipping-time, on very favourable terms; and large fortunes are rapidly acquired by all those connected with the trade in wool—the producer, the itinerant agent, the middle-man, and the manufacturer. The trade is yet in the first stages of its infancy; and I do not hesitate to say, that if sheep-breeding, wool-sorting, and the commerce of wool, were undertaken on a respectable scale, in a favourable situation, by competent persons having ample means, a gold mine would be open to them.

It is difficult to convey a correct notion as to the general character of sheep management, as it varies in different provinces, green food for winter is rarely

provided—in the south, never; hay and straw, with a sprinkling of salt, are the luxuries of Russia Merinoes. In the Baltic provinces, where the landed gentry are decidedly amateurs, and generally well informed, potatoes, beet-root, and carrots are grown for the flocks; they get also the refuse of the distilleries, which are very numerous, and almost invariably found on large estates. The soil and climate of this district are favourable for sheep-breeding; and the Leicesters are already there in small numbers; and a society for improving wool is established. The pastures of the South are exceedingly abundant, luxuriant, and aromatic: the latter quality they contain in an eminent degree. Many peasants possess several thousands of bee-hives, and conduct an extensive commerce in honey and wax, &c. &c.

ACCOUNT OF ALSIKE CLOVER (*TRIFOLIUM HYBRIDUM*.) BY MR. G. STEPHENS, Land Drainer, Edinburgh.

This plant was first discovered growing luxuriantly on the sides and in the bottoms of ditches, at Alsike Inn, ten miles from Upsala, in Sweden. It was named, classed, and fully described by Linnaeus, in his *Flora Suecica*, at page 258. It has since been described in the botanical works of Liljeblad, Hartmann, and Wahlenberg, and of Danish and German authors. Its trivial name, *hybridum*, is derived from its appearance being something between that of the common red clover (*T. Pratense*), and the common white (*T. repens*); but it is quite a distinct species, and easily distinguished from both; nor does cultivation alter its character. It was supposed to have originated from the accidental union of those two species, and it is probably for this reason that it is called Bastard clover, in the second volume, No. 129, of *Swedish Botany*, where it is accurately delineated, and its usefulness as an agricultural plant fully described. It is also described in the *Swedish Royal Patriotic Agricultural Society's Journal* of 1780 and 1782, as a plant well worthy of the attention of agriculturists. Its properties of growing higher, having its leaves more luxuriant, and striking its roots deeper, and remaining longer in the ground than the common clover, render it not only suitable for hay, but for laying down land to permanent pasture. The hybridum grows wild in Finland, Denmark, Germany, France, the northern part of Italy, and Portugal; but it has never been discovered growing wild in Great Britain. It is likewise partially cultivated in Denmark, Flanders, Finland, and some of the German States, where its hay is generally mixed with straw; in which state it retains its colour and smell, and never moulds. I have known the plant a considerable time, but never paid particular attention to it, till during my annual visits to Sweden in the last three years, when I observed its growth, and the soil on which it thrives best. Its natural soil is a calcareous loam, which effervesces with vinegar. When cultivated, it grows well in mild soils that are properly managed. Baron Wrangel of Akerby, in the province of Nericia, who has cultivated it for more than twenty years, says that, "if sown in well managed land of not too strong a nature, it yields a crop of hay of from 360 to 540 imperial stones per imperial acre, for ten or fifteen years successively, but the land must not be grazed by sheep or horses during the first two or three years." The

seed is sown early in spring, before the ground gets too dry or the wheat too strong (being sown among wheat or rye), and it comes to perfection in the third year; but as the crop is often heavy, and when the weather is showery, it is inclined to fall down, a small quantity of Timothy-grass seed (*Phleum pratense*) is generally sown along with it, to support it and insure a full crop in the second year. The cause of its failure in the second year, in Sweden, is, that the summer months being generally very dry, the drought prevents part of the seed springing till the autumn or following spring. But the climate of this country being more moist, it is reasonable to expect that the whole of the seed sown will spring at the same time, and consequently produce a good crop the second year. The roots of this species of clover, going deeper into the soil than those of the clover plants now in use in this country, will enable it to resist the uprooting effects of the alternate sunshiny days and frosty nights which prevail here in March and April. This plant throws up many stalks from the same root, which are not so strong as the common red clover, but stronger than the white, and having more lateral branches than either. The lower part of the flower is white, fringed round the upper extremity with a red ring, which gives the plant when in full flower a beautiful appearance. The plant possessing these hardy characteristics in Sweden, there cannot be a doubt of its being a perennial, which will stand our changeable climate better than any other trifolium hitherto cultivated in Great Britain, and with our superior agriculture, the crop will be here equally, if not more productive, than in its native country. All kinds of stock eat it eagerly, either in a green or dried state, which is a sure indication of its nutritive properties. I sent a small quantity of seed to the Highland Society last year, which Mr. Lawson informs me he has cultivated with success, and I also distributed some among various gentlemen for the purpose of experiment.

[The genuine Linnean plant of this name does not grow naturally in Britain, Sir James Smith having ascertained that the *T. hybridum* of Hudson's *Flora Anglica* was not the plant of Linnaeus. Mr. Lawson has cultivated a small quantity of this clover for two years at Meadowbank Nursery. In the first year the seed was sown on the 17th April 1834, produced flowers on the 25th August, and ripened the seed early in October, the height of the plants being twenty inches. In 1835 the same plants were in full flower on the 18th June, and ripened seed early in August, the height being two feet. The forage was abundant, and eaten greedily by a horse. Its botanical characters are:—head globular; stalked; pods four-sided; tuft of the calyx nearly equal; leaflets ovate, and a little serrated; stems branchy; habit of growth not so upright as red clover; roots fibrous. Loudon states its introduction in Britain in 1777, and that it is described in Michell's *Nova Genera Plantarum*.]

YORKSHIRE.—Upwards of 1,300 valuable trees were blown down, during the late awful gales which visited the eastern coast, in the Earl of Tankerville's park, at Chillingham. At Alnwick, the well-known and largest ash tree in the country, called the Broom-tree, and supposed to have been planted 400 years ago, which stood in the churchyard, was torn up by the roots during the recent gales, carrying away the wall, and doing much damage.

## MANAGEMENT OF BEES.

(To the Editor of the Perthshire Courier.)

SIR,—By inserting the following directions for the management of bees during the spring months, you will, besides obliging the subscriber, confer a benefit on a certain class of the readers of your widely circulated paper.

About this season of the year, when the weather becomes somewhat mild, the bee master ought to have every hive in his apiary lifted from the stool and their state examined into—both as respects their external as well as their internal condition, to examine as to whether the bees are in a healthy state, and as to their being a sufficient quantity remaining to enable the bees to outstand, it may be an inclement spring, and also to clear away from the stool any filth that may have been contracted there during the winter, and to see that the hive be well protected from the severity of the weather. If the hive weigh 20lbs. Dutch or thereby, it may safely be presumed that no assistance is necessary, and it may be re-placed upon the stool, plastering up the skirts as formerly. If it should not, however, weigh more than 15lbs an additional supply ought to be given occasionally during March and even April if the weather be unfavourable or vegetation late. Indeed when the spring is backward, I would recommend that some honey be given those hives that are considered to have plenty of provisions, as it not only enlivens and exhilarates the bees, but enables them to have their brood much farther advanced than they otherwise would. If the weather be open and mild, bees commence working about the beginning of March, but much depends upon the situation as well as the earliness or lateness of the season, that is to say, whether vegetation be in a forward or backward state.

Some hives, when examined into at this season of the year are found almost destitute of inhabitants—although pretty well stocked with honey—and the novice in bee-husbandry is at a loss to comprehend the cause. This apparent desertion might arise from various causes. Some hives by reason of their long confinement by cold and stormy weather, become unhealthy and diseased, and at length, when the weather permits the bees to venture from their hives, being unable to fly, they tumble over the stool in great numbers and soon die upon the cold ground. Other hives are deserted on account of their having lost the Queen, and when her death occurs in the winter season, the bees being unable to raise a new Queen from want of larvae, the loss is irreparable and the bees gradually quit the hive. There are many hives too, which, in the earlier part of the spring, appear to be strong and vigorous enough, but, by the end of that season, instead of having increased, they have considerably decreased in number. On examining such hives I have invariably found a Queen, but the workers were very few. The cause of this decrease was quite evident—for scarcely any young brood could be noticed in the cells. From this it might be reasonably conjectured that the Queen was somehow or other diseased and unprolific. Such hives however if reinforced by some four or six thousand bees in swarming time, may turn to good account by the end of the honey season. It is to be regretted also that many hives perish by famine, that worst of all diseases, which it is in the bee-master's power to avert, but from his carelessness and negligence in not attending to their wants are allowed to go

to ruin. Particular care should be taken by bee-masters in the spring when the ground is covered with snow to confine their bees, by fixing in the entries of the hives perforated lead, as the influence of the sun often entices the bees to go abroad, and numbers of them by alighting upon the snow get benumbed and soon perish. Often before an apiary have I seen hundreds of bees perishing upon the snow from the owner's inattention in this respect. In winter, hives should have very small entries, as warmth is of the utmost consequence to bees. The apertures should not be larger than what is sufficient for the ingress or egress of two bees a breast. For this purpose small pieces of wood ought to be fixed in the entry, that, as the season advanced, it could be enlarged as required. In the spring too, when the weather is mild and when but little provision can be collected in the field, strong hives are apt to fall a plundering and pillaging their weaker neighbours. When any the smallest symptom of robbing appears, the first step the bee-master ought to take is to narrow the entry, which will probably enable the infested hive to repel their invaders. If this plan however do not succeed, the hive must be removed to another apiary not less distant than a mile, otherwise there is every chance of its being totally ruined. When the months of March and April are over, then does nature's lap teem with opening flowers, almost to exuberance, from which bees can extract the sweet nectar abundantly, and then may the bee-master exclaim in the words of Bonnar—'Farewell famine, farewell robbers.'

I am, &c. L——, a Constant Reader.

*Banks of the Tummell, 4th March, 1836.*

SHEEP are most assuredly a highly important and necessary stock, on all arable farms. They benefit the strong soils by Summer folding; and the light soils by their treading and their dung, whilst consuming green crops. Excepting for fat lambs, none but Leicesters are bred in this county, and a great many of them, in my opinion, have been bred too fine; they are very handsome and get very fat, but are too short and too fat on their loins and fore quarters for the London market, which is our chief dependence for the sale of our mutton. They are now, however, getting them longer, with more lean meat, so as to make a good saddle of mutton; and getting rid of thin necks, which generally denote delicate constitutions. My idea of a useful sheep is, that it should have a long, straight, and flat back, a good scrag, and head up, good fore quarters, and good inside thighs to produce good legs of mutton, and with all these, a good fleece. Till within about five and thirty years, it was the custom in this and adjoining counties, to keep the wether sheep till they were about three years old. On the introduction of the Bakewell breed, they have been sent to market at about two and twenty months old; but within the last year or two, it has been found that by cutting Swedish turnips in the field for them, they may be fat enough to go to market at fourteen months' old. If this practice should become general, an immensely larger number of sheep will be bred, and in many cases, this further advantage will be gained:—most fields have parts of them where the corn and turnips grow weaker than on others; these parts may be assisted by having turnips grown on the stronger part consumed on the weaker. Connoisseurs will say, such young meat is not so good-flavoured; for eating in winter, when all meat should be well kept, it may not be, but for summer, when it must be eaten fresh or be liable to taint, the

youngest meat is the most tender and best. It must be admitted that the South Down mutton from age is the finest-flavoured meat, without being too fat in the prime part, the back, but South Down mutton fed in Northamptonshire will not have the same fine flavour as that fed on the South Downs; the animal there is kept in great exercise while procuring its food, and is much longer getting fat; thus its flesh becomes faster upon it—like a horse in good condition—and not so frothy as the flesh quickly put on. It is from this cause, in my opinion, that the South Down mutton has acquired its celebrity for fine flavour. I am convinced we can in this county make a much greater weight of mutton per acre with Leicesters than with South Downs; but for the purpose of folding, to manure large arable farms, there is no breed of sheep equal to the Downs. Leicesters are more indolent animals; they like a good bite to fill their bellies quickly, and lay down to rest. The South Downs are more on the move, herd much together, and lay their dung where it is not wanted, under the hedges. Full thirty years ago, I gave my opinion in the Farmer's Journal, that for different soils, and different parts of the kingdom, there were two breeds of sheep that were decidedly superior to all others, the South Downs and the Leicesters; and that opinion I now retain. Useful as sheep are for grazing, there should be store cattle kept with them; otherwise, all the fine-bottom grass of a pasture will go; and the top and coarser grasses left. It is dangerous in some pastures to stock so hard with sheep as to make them eat herbage which will disagree with them, and which they would reject if not pressed by hunger to eat it. Daises are injurious to young sheep and lambs, often giving them the gurry, which is attended with fever and thirst, and if they can get at water, they will drink such quantities as to prove fatal to them. Sheep will (excepting in very hot weather), do very well without any water. If at the time of lambing it is necessary that the shepherd's hand should be introduced it should first be rubbed over with some strong oil or spirit; from introducing into the ewe's inside a hand, sometimes almost as cold as a stone, many have been lost. Ticks and lice often so infest tegs in Winter and Spring, and make them so uneasy as to prevent their thriving; these vermin may be destroyed by opening the wool in two rows on each side, and putting in sheep ointment of half the strength of that used to cure the scab; or dipping them, all but the head, in a poisonous solution,\* which should afterwards be carefully thrown on ploughed land.—*Hillyard's Summary of Practical Farming.*

### DUTIES ON SEEDS.

The duty on the importation of foreign agricultural seeds is a subject, not unworthy the attention of Parliament, as the impost has been levied originally at the instigation of a few interested parties connected, most probably, with the more southern portions of the country, to the detriment of the rest of the agriculturists, particularly those in Scotland, where a considerable quantity of grass-seed is consumed, the system of succession crops requiring the renewal of the seed at least once in three or four years;

\* *Receipt for Dipping 50 Lambs.*—1lb of arsenic to 5lbs of soft soap boiled in nine gallons of water; then mixed with about 15 gallons or more of cold water, to make it the proper strength, which is ascertained by dipping in a live sheep-tick, and afterwards putting it on the palm of the hand; if it lives about one minute and then dies, it proves the mixture to be of a proper strength.

taking likewise into consideration the increase of live stock consequent on the rapid augmentation of the population, artificial feeds have been rendered a point of material interest to the grazing farmer. During the past week Mr. S. Mackenzie presented to the House of Commons a petition from some farmers in the northern districts of Scotland, praying for relief from the prevailing agricultural distress, and pointedly alluded to the exactions made on the imports of clover and other grass seeds. The amount of duty, as will be seen by the annexed statements, cannot have been sufficiently large to affect the revenue to any extent, whereas it acts directly onerous on those parts of the country, where in ordinary seasons such seeds cannot be ripened; it not only enhances the price of the home grown, but also of the foreign article, and induces the farmer often to use seed of inferior British quality from not having arrived at a perfect state of maturity, as he can obtain it at rather a lower price than the good seed which has been received from Germany, Holland, France, or America. Indeed the duties on some agricultural seeds are quite prohibitory; on Clover, Lucerne, Trefoil, in fact all grass seeds, it is 20s per cwt.; Mustard seed, 8s per bushel; Caraway, 30s per cwt.; Canary, 60s per cwt.; Coriander, 15s per cwt.; Anniseed, 60s per cwt.; Tares, 10s per qr. On crushing seeds the duty has been reduced to 1s per qr, as not considered materially to interfere with the agricultural interest, as we are almost totally dependant for Linseed and Rapeseed on foreign growth.—The quantity of Cloverseed received from abroad at the ports of London, Liverpool, and Hull, during the last six years is as follows:—

1830	1831	1832	1833	1834	1835
<i>cwts.</i>	<i>cwts.</i>	<i>cwts.</i>	<i>cwts.</i>	<i>cwts.</i>	<i>cwts.</i>
49096	148554	45308	38452	39792	51672

producing an annual average of 62,000 *cwts.*, or as many pounds sterling to the revenue, and taken out of the pocket of the farmer, who is the only consumer, with the chance of the failure in yielding a profitable return for his seed, which as he is more northerly situated becomes the more precarious. Again, as regards Tares, which form so valuable a resource for feed, we are obliged to import more than half the quantity of seed sown in this country, and the heavy duty of 10s per qr checks considerably the cultivation of the article.—We have annexed the importations of foreign Tares compared with those received from England, Scotland, and Ireland at the port of London, observing that at Hull the proportions in favour of the foreign article is much greater—

	1830	1831	1832	1833	1834	1835
	<i>grs.</i>	<i>grs.</i>	<i>grs.</i>	<i>grs.</i>	<i>grs.</i>	<i>grs.</i>
<i>British</i>	2725	2641	2947	3492	2179	5240
<i>Foreign</i>	5326	1641	6309	3188	5873	8272

The Tares grown in Germany and Denmark are all spring quality; the Winter Tare, though often sown from seed received from England, and the cultivation attempted in the finest soils in Holstein, which is the *garden* of Denmark, has gradually failed in the produce, owing to the severity of the winter. The Spring Tares, however, are generally of good quality, and large and fine from particular districts, especially in the marsh of Holstein, in Brunswick, the neighbourhood of the Saale, &c. We may conclude by observing, that Mr. Mackenzie shrewdly remarked, in asking the Chancellor of the Exchequer to repeal the tax on foreign seeds, he felt confident of the support of the President of the Board of Trade, as the hon. member had already laboured so praiseworthy in relieving all *raw material* from severe and excessive import duties.

DISEASES OF LAMBS.

These young animals are subject to a variety of diseases, either from insufficient keep, too much milk, or cold weather, allowing them to suck other ewes, or giving them cow's milk warm from the animal, which is apt to coagulate and form a hard substance in the maw, by which many good lambs are carried off.

**DIARRHŒA OR SCOURING.**—This is very destructive amongst lambs in some parts, from 24 hours to about a week old, and many die in six hours after they are taken. It for the most part comes on when they are about 24 hours old, and lasts about two days, in which time it mostly kills five out of six, if proper medicines are not applied at the commencement. This disease begins with severe griping pains, frequent purging, and the lambs very much blown up with wind in the stomach and intestines; and if the disease goes on for some time without relief, the diarrhœa becomes more stationary, the purging accompanied with a copious dejection of mucus of the intestines, with griping pains, and the young animal daily pines away. It is proper for the mother to have a gentle purge or two of the following form:—

Take,—Epsom Salts, two ounces.  
Elixir of Vitriol, one tea spoon full.  
Water, half a pint.

Give this to the mother and change her pasture. Then prepare the following and give to the lamb:—

Take,—Compound Cinnamon Powder, two scruples.  
Prepared Chalk, one scruple.  
Carbonate of Soda, one scruple.

To be given in a little gruel. This is of sufficient strength for a lamb from 24 hours to a week old, and it may be repeated every four hours till the symptoms are abated; or the following:—

Take,—Cinnamon, two ounces.  
Opium, one drachm.  
Ginger, one ounce.

Boil in three pints of ale for 15 minutes, and add,

Carbonate of Soda, two drachms.

Let this be strained off, and, when cold, two table-spoons full may be given two or three times a day. A lamb six weeks old may have three table-spoons full.

**COSTIVENESS.**—This complaint is mostly accompanied with fever; the lamb appears dull and heavy, and eats very little.

Take,—Epsom Salts, half an ounce.

Dissolved in a little water, with a tea-spoon full or two of castor oil.

If the lamb is weak and does not take sufficient support, it must have the gruel given to it as directed in page 16 two or three times a day.

**STAGGERS.**—The most thriving of the lambs are affected with this complaint, and it often proves fatal, especially when about three or four months old. Sometimes they are seized with a giddiness, fall down and cannot get up again without help. Sometimes they appear convulsed, and very much distressed. Lambs have been opened, that have been killed while in this way, when the blood vessels about the brain have appeared a little tinged and distended with blood, more so than in health. In this complaint, it is proper to bleed and give the following purge:—

Take,—Epsom Salts, one ounce.  
Elixir of Vitriol, half a drachm.  
Hot Water, two ounces.

To be given when cool. After the operation of this medicine, give the following ball, and keep the lamb under shelter:—

Take,—Calomel, four grains.  
Gentian, half a drachm.  
Syrup enough to make a ball.

**MGRIMS.**—This disease proceeds by breeding repeatedly from the same kind or family of sheep. When first attacked with this complaint, they run in a sort of canter about the pastures with their tails cocked, and if the hand be put upon the loin or back, they instantly sink down, which shows that the disorder is in the back. When sheep appear to be once affected with this disorder, it is dangerous to breed with them, as great loss is sometimes the consequence.

**THE RICKETS.**—This disease is something like the last, and nothing can be done except changing the breed of sheep. When they become rickety, it is the best plan to kill them.

**STIFF JOINTS.**—Sometimes lambs are affected with a stiffness in the joints about the middle of summer. It is caused by the impoverished state of the ewes, or change of temperature, in consequence of which they are stunted at the time they are disposed to grow; by which means their joints swell and become painful and stiff, but they generally recover.

COMPARATIVE MANURES.

The last report of the East Lothian Agricultural Society notices a comparative trial of different kinds of manure by Mr. John Brodie, Aimsfield-mains. Mr. B. had part of a field which had previously carried turnips, sown with wheat, Spring 1835, and manured as follows:—

1st, 10 cart loads of street manure, per Scots acre, at 5s 6d.....	£2 15 0
2d, ½ ton rape dust, at 110s.....	2 15 0
3d, 8 cart loads of farm-yard dung, at 7s .....	2 16 0

The produce was as under:—

1st, 6 quarters of wheat, weighing 60½lbs. per bushel and 345 stones (tron weight) of straw.	
2d, 6 ditto, 5½ bushels, weighing 69½lbs. per ditto, and 285 stones ditto.	
3d, 5 ditto, 7½ ditto, weighing 60½lbs. per ditto, and 266 stones ditto.	

Thus proving rape dust superior to street manure and farm-yard dung for raising wheat—a matter of great importance to farmers, especially to those in remote situations—a cart loaded with rape dust going so much farther than one with street manure. Here it may also be stated that Mr. B. had a comparative trial of different kinds of manure given to the turnips which preceded the wheat crop. The respective manures were applied in the following proportions per Scots acre:—

1st, 20 cart loads of street dung, at 5s 6d....	£5 10 0
2d, ½ ton rape dust at 110s.....	2 15 0
3 qrs bruised bones, at 19s....	2 17 0
	—5 12 0
3d, 16 cart loads of farm-yard dung, at 7s .....	5 12 0

Mr. B. remarks that “the whole turnips braided beautifully, and from the first, till the time of lifting, it was impossible to decide which would be the weightiest crop. I therefore determined, on the last week of November, to take up alternate rows of the whole, and weigh each separately after the roots and tops were taken off, and the result was found to be as follows:—

1st, ½ Scots acre manured with street dung .....	Cwt. 1b
produced of common globe turnip .....	301 92
2d, ditto, with rape and bone dust .....	304 99
3d, ditto, with farm-yard dung.....	312 30

## LETTER TO LORD JOHN RUSSELL ON THE TITHE QUESTION.

MY LORD,—I believe that both the government and the parliament are desirous of effecting a just arrangement between the tithe holders and tithe payers; but it appears to me that neither the subject of complaint nor the principles on which it ought to be removed, nor the difficulties that intervene, have been sufficiently considered or rightly understood. I shall attempt to set them forth briefly and distinctly, thinking that upon a subject of such importance the sentiments of any person who has long and dispassionately considered it, will not be unacceptable.

It cannot be controverted, that where one party complains of a grievance, it can have no claim to have a greater advantage conferred on it, to the detriment of the other party, than the removal of that grievance. What is the grievance arising from tithes to the owner of land? Not the existence of such a charge, for that is of such extreme antiquity, that not a single family in the kingdom can show that they possessed land before its existence. The land has been universally purchased subject to that charge, and the price given for it has been so much the less than would have been given for it otherwise. The purchaser of impropriated tithes has as sound a title as the purchaser of the land: the clergy have an indefeasible life interest, the more to be respected, because they are debarred from other professions if stripped of what they now enjoy. The fee simple of the church tithes is in the State, subject to the life interest of the incumbent; except in cases of private advowsons, where there is a concurrent title to the fee, which the State could not resume without indemnifying the patron for his interest. To remove, therefore, or diminish by a compulsory act, the charge upon land, would be to make a present to the landowner at the expense of the titheowner. Yet the landowner, has no just cause of complaint against its existence; and the occupier, where land is let, must know (if he is not deficient in intellect), that if that charge were removed, his rent would be increased to an equal amount. The just complaint is solely this, that if the occupier should be disposed to make an unusual outlay of capital in very deep drainage, or rearing a more expensive breed of live stock, or purchasing additional manures, he is taxed upon the produce of that extra expenditure, and that such a disposition to expensive agriculture did not exist in earlier times, and operates against improvements which would be beneficial to the country. It is the duty of the legislature to seek how to remove that evil with as little injury as possible to the titheowner, whether he be a lay-impropriator or a member of the clergy. It is, however, to be observed, firstly, that no retrospective deduction can be made on account of improvements; secondly, that if the tithe-payer is to be relieved from the tithe of the produce of an extra application of capital, on the other hand the tithe-holder ought to be defended from the defalcation consequent on unhusbandlike neglect and impoverishment of the land; and that the payment of tithe must be limited, if by compulsory arrangement, to the tenth of that which the land would produce, if properly treated in a plain husbandlike manner; that is, cleaning the land, ditches, and furrows, and laying the produce of the hay, straw, and green crops on the land. It is evident that if the occupier be allowed to apply

extraordinary means, without paying for increase of produce, he ought not to be allowed to pay less than the average, if he diminish the produce by waste and neglect.

This being the only just ground of complaint, and just basis for its removal, let us see what difficulties stand in the way of an arrangement.

Any skilful surveyor can say what ought to be the produce of any given soil (quality and situation considered) if farmed in due course, applying the hay, straw, and green crops, and keeping the land and watercourses clean, without having recourse to extraordinary expenses; and it is clear that, if the tithe be fixed permanently to that amount, the owners and occupiers of land can have no just cause of complaint, and that to give them more advantageous terms would be to enrich them by taking from others who have as just a title to their respective properties; and although parties, if left to arrangements amongst themselves, may make concessions, the legislature cannot, without injustice, compel an arrangement on any other basis. If the adjustment of the bargain be left to voluntary agreement, the same causes that have operated to reduce the annual payments in particular situations, will operate to reduce the final composition there also: but if a compulsory arrangement in unjust terms be held out, the party who would derive the unjust advantage will, of course, not accept of any other.

All that is necessary for effecting this is to enable the lay impropriator and the incumbent (with the consent of the patron and ordinary, to prevent fraud) to make a voluntary permanent arrangement with the landowner, fixing the annual value to be paid: and, where they cannot agree, to allow them to employ a sworn valuator, upon the principle above stated, the expense of the valuation being thrown upon the party demanding it, or rather on the State, as the improvement of the land (which is sought) is of national importance. But that arrangement and valuation must make a distinction for the future as well as the present between land when ploughed and when in grass—viz, that the tithe shall be so much when it is ploughed, and so much when laid down in permanent grass; and it must specify each field, or at least tract of land of like quality separately, or great cause of complaint will arise hereafter, if the land should be sold off and partitioned under an equal charge, though of unequal quality. That valuation being agreed upon between the parties, or determined by an impartial and sworn arbitrator, and the amount made a permanent rent-charge on the land, the owner and occupier will be relieved from all the real grievance of tithes. Any further complaint would be only an unjust clamour and a desire of appropriating another man's possessions. It would be just, however, where land is now deteriorated by neglect and waste to allow a deduction for three or four years while it is recovering, before it pays the average charge on land of such quality.

Let us now consider the injustice of, and the obstacles to, any other mode of proceeding.

In some parts of the kingdom the clergy have been in the habit of taking less than the value; in others, of receiving a fair remuneration: and it will be found that where they have received least, the tithe is most unpopular, because its unpopularity has been the cause of their taking less; and that, where they are fairly paid, there is little if any complaint. For instance, in a part of the kingdom where the agricultural population

are better satisfied than in any part of England, the tithes are generally let upon their calculated value. If a plan be adopted of forcing those who live in a part of the kingdom where the full value or thereabouts has been usually paid, to take less, the most cruel subversion of all the comforts of those persons must ensue, by stripping them of a portion of the income on which they had calculated for life; and a gift will be made of that which is taken from them to persons who have not been complaining, and have no reason to expect such a boon. On the other hand, the compulsory increase of the income of the clergy, wherever they may have been in the habit of taking very little, will occasion greater dissatisfaction to the grumblers, who will think they could have made a better voluntary arrangement. Here, therefore, would be a grievous curtailment of the income of many persons, to the total subversion of their domestic habits, without giving general satisfaction or any evident advantage to the nation. What justice is there in ruling that because at one extremity of the kingdom local circumstances may have induced the tithe owners to take less than their due, those who live at the other extremity, where such circumstances have not been in operation, shall be stripped of the income they have enjoyed without interruption or complaint? Such a proceeding strikes at the security of all property. It might with equal justice be decreed that because in one part of the kingdom landlords may have been contented with such a rate of rent, they shall not in another take a higher; that because land sells here for 24 years purchase, it shall not sell there for 33. And what is the fact? Does the land where low tithes are taken sell for more years purchase? Decidedly not; in such counties it sells for 24, and in Yorkshire, where the demand of full tithe is usually expected, it sells for 33, and even 36 years purchase.

If you lay the charge equally on a whole parish, or even a farm, which may contain many variations of soil, great cause of future complaint would arise on the dismemberment of the farms, and the charge must be unjust at first as regards a parish.

If you do not distinguish between the future charge on grass and arable land, great injustice will be done; because those whose land happens to be in grass will be charged little, and may immediately plough it up; those who have now arable land will be charged much, and will not be relieved if they find it necessary to lay it down hereafter; and hence, considerable injury would arise to the holder of soil which is from its nature expensive to till.

Large tracts of lands are under a modus for hay, and titheable when ploughed; other large tracts, which belonged to the privileged monasteries, are free when occupied by the owner, and titheable when let. By no arrangement can the tithe of these lands be settled, but by their paying when ploughed, or when let, as above proposed; and it is utterly impossible that the fee simple of the right of tithe on such lands should be valued, so as to sell it, and discharge them entirely; though the sum which they shall pay annually, whenever chargeable, may be easily fixed.

If an average of any number of late years be taken as the test of the value of the tithe, a bonus is given to the man whose land has been neglected and impoverished, and a heavier charge imposed on that which has been fertilized and well man-

aged, doing injustice to the landowner, which would be obviated by valuing the charge at the tenth of the average produce of the soil, when duly treated, without extraordinary expense, allowing a deduction during a few years, for the recovery of any land now impoverished.

Any attempt to regulate tithe by rent must be unjust—1st, because tithe bears no relation to rent; the produce and tithe of two fields being often the same, though the rent of one is high on account of the labour of tilling it being small, and of the other low, on account of the labour being great—2dly, because rent in some degree depends on the disposition of the landlord. A man seeking popularity for electioneering views may find it for his interest to lower his rents, but he has no right to drag down his neighbour's tithe also to promote his views.

No redemption of the rent charge by the landholder can be effected with justice; nor is it desirable. With respect to modus land, and land free in the occupation of the owner, it is impracticable; with no land can it be effected without an evident advantage to the present holder of grass land, to the disadvantage of him who holds arable. To the clergy it would be very hard; because if the capital be placed in the funds, they will have worse security; if laid out in land, which would be worse for them than the funds, they will be burdened with the cares of a property which they may be unable to let, and not have capital to cultivate, which may have been impoverished by the previous incumbent, and which is burdened with repairs. If at all to be redeemed, there is but one fair mode of proceeding; that the purchaser should pay that amount of Three per Cent. Consols which will on the day of the purchase yield the same income as the rent charge—the money to remain in the funds, till the incumbent patron and ordinary agree on some more eligible investment. The rent charge, or present right of tithe, is worth more years' purchase than land, because it is not burdened with repairs of buildings, and the rate at which land sells in its immediate vicinity could not be a fair price; but when land notoriously sells in one part of the kingdom at 24 years' purchase, and in another at 33 and 34, how can it be just that it should be redeemed at a fixed number of years' purchase throughout the kingdom? Take the case of a person having a tithe income of 400*l* a-year in a quarter of the kingdom where about the full value is usually paid; if reduced to 75 per cent. there remains to him but 300*l* a year. If that is redeemed at 25 years' purchase he will receive 7,500*l*. What is to be done with it? If placed in the Three per Cents, at 91, it will yield him 213*l* a year, in the place of his 400*l*. If laid out in land at the market price, in Yorkshire, which is 33 years' purchase, it will yield 227*l* a year, with a deduction of 10*l* per cent., at least, for repair of buildings, and, in truth, not much more than 200*l*; and, further, if the clergy be compelled to invest the money in land, the market will rise against such large investments. At all events the income of such a person will be cut down to about one-half what it is at present, whether he be a clergyman or a lay improprator. Take the further case of such a man having also an estate in a clay country, where, from the low price of corn and the greater expense of tillage, he is preparing to lay down a great part of it in grass; he will be forced to pay hereafter an undue burden on account of the land having been lately ploughed. Suppose him to have other farms, where the land is more

favourable, and good tenants, who have bought rape dust and malt dust to lay on abundantly; he will be charged there in perpetuity on account of the good crops lately raised by his tenants; and on all sides his income will be curtailed, both as a landowner and a titheowner.

Take the opposite case of a man having 400*l* a year tithe property, in a quarter where only half the real value is obtained, and land sells for 24 years' purchase. His tithe is to be raised 25 per cent. and becomes 500*l* a year; redeemed at 25 years' purchase, and laid out in land in his vicinity at 24 years' purchase, he remains with a rental of above 500*l* a year, subject to deductions for repairs. Suppose the same man to have an estate of grass land greatly impoverished by bad tenants and neglect, he will redeem the tithe thereof for a small fraction of what its value would have been if ploughed and properly treated, and may immediately plough it up and apply manure to it; and the income of such a person will be increased in the opposite scale, though there was nothing in the circumstances of his case that entitled him to any advantage at the expense of others.

Is it desirable to disturb the existing state of things to bring about a result so unjust? and is it not more desirable to adopt the plan above proposed, by which no flagrant injustice will be done, and yet the only real cause of complaint will be effectually removed—namely, the check on improvement and extraordinary application of capital?

There remains to consider, if the value be fixed as above proposed, how it should be paid. If you were certain of starting from the medium point, and that the market would fluctuate about equally up and down, a corn rent would be just; but the price of wheat is proved by experience to be a false criterion of the value of tithe, because in the last three years the price has been low, in consequence of the abundance of the crops; and the real value of the whole crop, and, consequently, of the tithe, has not been materially less on account of the low price. On the other hand, a great rise in the price, in consequence of a bad crop, would make a corn rent too high; and unless there be an equal fluctuation, one party or the other would suffer accordingly. It would, therefore, be probably best for both parties to fix half the value in money and half in kind; but no one kind of grain is a safe criterion. Wheat may be low; oats, barley, beans, and beef high: therefore the more articles are priced the fairer the payment will be. For instance, to represent a payment of 9*s* 4*d*, say (it matters not whether the prices here supposed are correct or not):—

Cash	s. d.
One-eighth of a week's agistment of a full sized	
beast, at 4 <i>s</i> .....	0 6
One pound of beef .....	0 5
A quarter of a pound of wool .....	0 6
A quarter of a stone of hay .....	0 6
One-eighth of a bushel of wheat at 5 <i>s</i> .....	0 7½
One-eighth barley at 4 <i>s</i> .....	0 6
One-eighth beans at 4 <i>s</i> .....	0 6
One quarter oats at 2 <i>s</i> 6 <i>d</i> .....	0 7½
One quarter a labourer's daily wages at 2 <i>s</i> 0 6	
	9 4

or such of the above items as it may be found convenient to include. The quantity of each article which the tithe of an acre or tract of land shall represent having been permanently settled, it will be only necessary to set every seven or fourteen

years the value of the articles, taking the grain at the average price of the county return for the last period of seven or fourteen years, and the price of the prime samples of the other articles, if included, which will be more easily ascertained than the average, may be set by a sworn arbitration in each parish, to the best of his judgment, and he might be named by the tithe payers and rector, if they can agree; and if they cannot, by the Secretary of State.

The only remaining difficulty would arise out of small tithes and vicarial tithes. Where there is a Vicar, the small tithes of all persons having land should be included in the consideration of the payment to be fixed, and the rector would willingly abandon the small tithes of cottagers without land. Where there is a Vicar, the arrangement should equally be made in gross with the rector and vicar; and if they cannot agree as to the amount to be secured out of the whole to the vicar, the sworn arbitrator must be called in to adjust a fixed payment for him.

The only other point that suggests itself is the necessity of saving existing leases. Where the tithe-owner has leased the tithes to the landowner for his life, or for a long term, the legislature cannot without injustice annul such agreements, in order to compel the parties to make a new agreement on a different basis; and, therefore, in such cases, though the permanent arrangement may be made immediately, it cannot be brought into operation before the termination of such leases (except by the consent of both parties) with any semblance of justice.

I earnestly entreat the government and the legislature to weigh maturely these considerations, and not by a hasty measure to produce grievances greater than what they are desirous of removing.

A LANDOWNER AND TITHEOWNER.

P.S. The case of hops should have been separately considered; as far as this cultivation depends on great application of expense, it calls for some relief; but if other parts of the farm are robbed to fructify the hopgarden, which is usually the case, it is a diversion of the manure from its proper course, which furnishes no ground of complaint. There seems to be no mode of dealing with the cultivation of the hops but the fixing a certain additional sum per acre for all land on which they shall be grown. B.

ISLINGTON MARKET.—It appears from an advertisement in the *Norwich Mercury*, that nearly 500 farmers of the county of Norfolk, whose names are given, headed by the Duke of Norfolk, Lord Lynedoch, Mr. Coke, General Fitzroy, Sir J. Astley, M.P., Sir W. Folkes, M.P., and E. Wodehouse, Esq., M.P., have determined to support the Islington Market, that journal says that it is but due to Mr. John Sayer of Sealthorpe, to whose continued exertions the proprietor of Islington market was previously so much indebted, to state that he has been indefatigable in obtaining the large list of supporters to which we have alluded. The tolls which will be levied, and which cannot according to the Act be increased, are, for beasts 2*d* each; for sheep 1*s* 2*d* per score, including pens; the whole of which charges are paid by the salesman out of his commission;—that the lairage is 3*d* per head on beasts, and 1*s* per score on sheep, per diem. On any day *not being a market day* they may occupy the lairs;—but in order to render every accommodation to Graziers sending stock to the Islington cattle market, Mr. Perkins has determined to charge only one night's lairage on cattle coming into his lairs on the Saturday, though they remain in the lairs till after the market is over on the Monday.



## THE TITHE BILL.

[We cannot subscribe to all the doctrines laid down in this letter, but coming from an individual who has attained so high an eminence in his profession as Mr. Preston has, it is entitled to great consideration, and besides does really contain some valuable information—EDITOR FARMER'S MAGAZINE.]

SIR,—Allow an individual whom the public have in more than one instance honoured with their approbation, to call your attention to the measure of tithe commutation now depending in the House of Commons of the United Kingdom.

On examining the provisions of the bill it is collected, that the burthen of the tithes will, in many districts, be doubled, and in other districts trebled. Even the clause for voluntary commutation is open to great objections to all those districts (like Norfolk and Suffolk, and the western counties) in which rent is almost universally the measure for estimating the value of tithes to be paid to the tithe-owner, especially the clergy.

This clause assumes that the full value of the produce is to be the foundation of the value of tithe; and the value, of course, includes in its estimate the increased and improved value by the outlay of capital, the employment of labour, the purchase of manure, however costly, and all other items which attach on the cultivation of the soil, and even on the poor-rate, and on seed; and it includes the value of produce, as in the price of beer and other articles of consumption it is augmented by taxation. In the result the cultivated lands of the lowest rate of rental value, whether the value depends on locality, nature of the soil, distance from manure or from market, will bear the highest rate of contribution towards tithes; for an amount of increased number of rents must be obtained by the farmer to enable him to carry on his cultivation and pay his outgoings; and this calculation will absorb all or a large proportion of rental value.

There is a gradation of rental varying between two rents and 10 rents. Produce equal to two rents, or even one-and-a-half with interest of capital, tithe, and poor-rates, would answer for good grass lands; three rents may be allowed, and an ample compensation for arable lands of the highest grade, say 4*l* per acre; four rents may suffice for medium lands. The produce must range at the rate of five rents, at least, for land under 13*s* 4*d* per acre. For lands under that rate, the produce must be from seven to 10 times the amount of rent.

In Norfolk, Suffolk, Surrey, and the west of England, it will be found that the owners have their tithes increased to a degree bordering on ruin.

If the enactment ended, as it ought in justice to do, with a power to make voluntary commutations, the legislature might be justified in passing the bill into a law; but the compulsory clause violates all the rules by which parliament has usually been governed in enacting laws affecting property, and making important changes in its value.

It is quite clear that, with a compulsory clause, you cannot expect a commutation on any other terms, at least after a short experience of the working operation of the act, than those prescribed by section 1; for if the incumbent would consent to commutation on more just terms, he could not bind the patron or ordinary, or, as a consequence, his own successor, without the concurrence of his

patron and ordinary. The latter, in justice to the Church Establishment, and the former, in justice to himself, his family, and frequently his creditors, would not give his consent, except on the advantageous terms prescribed by the legislature; and then the commutation must be founded on the value of produce, without the least regard to the amount of rental value; and the amount of rent must in all cases depend on circumstances, and will not admit of any uniform standard.

Did the clergy, as a body, ever receive or expect to receive for their tithes a portion of the rental value, approaching even to one-third part of the amount? and would the value of the tithes of this kingdom have been increased as they have been within the last sixty years, had such a claim for tithes *to tithes* been generally enforced? True it is, the tithe-owner has, by established law, a right to one-tenth part of the gross produce; but, though such be the right, it has been well understood that its enforcement would never have been tolerated. And have not the tithe-owners uniformly benefited by the increase which has taken place in the last 60 years in the productive powers of the soil, from artificial improvements and an improved system of husbandry? Has not every increase of rental value given to the tithe-owner a corresponding increase in the value of the tithes? Have not improvements uniformly raised the value of tithes while the owner or cultivator has not derived more than a reasonable rate of interest on his capital, withdrawing the capital itself only by slow progressive means through a long term of years?

The clamour which has been raised, often unfairly, against tithes, has been urged on the ground of the injustice that the tithe-owner should receive a large portion of the produce of the farmers, including income from improvements arising from capital in money, and the labour, skill, and industry of the owners and occupiers of the soil.

The principle of the depending bill is to arrest the progress of the evil by excluding all such participation on the future increase.

If it be expedient to avert future evil, is it not equal justice not to fix and perpetuate the right, even in districts in which it has not already been exercised, of taking this undue and unjust advantage of useful and praiseworthy application of one-half (and in former times it was four-fifths) of the best employed capital of the kingdom; a capital with its progressive increase skill and science is employing in cultivation of the soil and in diffusing all the comforts of domestic life to the hardy labourer and his family?

Not only is the extreme right to tithes to be tolerated, but it is virtually and in effect, from the increased facility of obtaining the knowledge of the actual value, and the security of obtaining that amount, enjoyed, and in effect, though not in terms, it is morally enforced. Correctly, then, is this bill styled, "The Tithe-owner's Bill!" Instead of being a bill of relief to the landed and agricultural interests, it is an infliction of the most severe injury to a large portion of them.

The number of resident landowners is, in nine cases out of ten, very small. In future, as existing leases shall terminate, the tithe-owner will be removed from all conflict with the occupiers of the soil, except for the purpose of demanding surplice fees, &c., and taking distresses, and making entries to enforce the payment of tithes. Thus the person now liable to tithes is to be exonerated, and the landowner, against whom or whose property no direct remedy now exists at law, or in equity, in his character of landlord, is to have the annual

value of the tithes fixed on his property, and as the first charge after the land-tax.

Thus he is charged with one-fifth of his income by one parliament, now greatly reduced by the increase of rent, and by another parliament is to be fined with a direct charge of at least six-tenths of the amount of the actual value of the produce for tithes. Was any other property ever so grievously charged, and permanently, too, with taxes? The income-tax, or, as disguised by the denomination of property-tax, does, in comparison, sink into insignificance. This proposed taxation is more grievous, from the circumstance that, by reducing the annual rental, it reduces the saleable value of the fee-simple in a serious degree; and while the fee-simple value of lands will of necessity go down, the value of rectories and the patronage of advowsons will receive an extraordinary advance—an advance arising from the certainty of the security, and its liability to a decrease only from a variable money price for corn, and the facility of collecting the income from the comparatively few individuals, instead of a numerous and frequently a distressed class of persons. The landlord is not liable, and will not be liable, unless a law should be passed obliging him to take this responsibility on himself. He frequently loses his rent; and hereafter this loss may include the amount of an increased rent for the value of the tithes. If the landlords will take the responsibility on themselves, it should on all principles of justice be an equitable compensation. The 40 per cent., to be withdrawn from the amount of the value of the tithes, leaves to the tithe-owners the net rental value of tithes, after an allowance for the average rate of the expense and risk of collection, &c.

It is said, parliament, in passing inclosure bills, is in the practice of giving the tithe-owner one-fifth of arable lands and another of smaller proportion of grass lands:—*e. g.* one-seventh of mowing lands, and one-ninth of pasture and waste lands. The answer is, an allotment of one-fifth of open waste, or uncultivated lands is not to be compared in value or eligibility with a rent-charge on lands of ample value for its security, and with certain remedy for arrears, charges, and costs. There is not any danger of loss from tenants or depreciation, or neglect of the land; from the allotment of one-fifth must also be deducted all the usual expenses which are incident to the ownership of landed property.

Under the compulsory clause, the tithe-owner may avail himself of the present moment of high cultivation and increased produce, arising partly from the necessity (and that necessity never more imperiously existed) of increased energy and the application of increased industry and capital, when it may be commanded, to render an increase of produce equivalent in some degree for prices allowed to be ruinously low. Men of activity, with money of their own at their command, or supplied by their friends or landlords, are weathering the long-continued storm in which so large a number of cultivators differently circumstanced have been swamped. Is the landlord to be now taxed in perpetuity, by a rent-charge, for this energetic conduct of the occupiers—and in many instances a conduct to which the owner has not been a party? There are other cases, and not a few in number, in which the necessities of the farmer; the nature of his tenancy, as drawing to an end; his precarious interest, as a tenancy for life, or in many districts still continuing a tenancy of lives, as copyholds for lives, leases for

lives under ecclesiastical persons, and leases for years determinable on lives, at small rents, as in the western counties; their interests have always induced them, when their interests are drawing to a close, to force the productive powers of the soil down to as low a degree as any profit may be reaped, thus greatly deteriorating the annual value of the property. It is the con acre system, in effect, so much deprecated in Ireland.

The landowner has not any means of protecting himself from the injury thus inflicted on the soil, and on the termination of the lease he must reduce the rent to the tenant, who is to enter on an impoverished farm; and this owner will be charged in perpetuity for the produce of the titheable matters thus injuriously forced from the soil. Instances of this nature are familiar to all the landed proprietors of the western counties.

There is another and still greater evil enforced by the compulsory clause. Proprietors who have been cultivating and improving the soil by a judicious rotation of crops, merely for the purposes of restoring the land to grass, as its more useful and profitable destination, are by this clause subjected to have the produce of lands valued while in cultivation, and the rate of tithe will be totally inapplicable to them when restored to grass. Thus the tithe rate will be doubled, and in many cases trebled, through all time, on the fee-simple value. The writer of these observations will suffer a loss in the fee-simple value to an extent which may, and probably will, exceed one-fourth part of the present value. A provision to suspend the compulsory clause for seven years is the only relief for cases of this description; and it is a just relief, because it is as much the right of the proprietor to apply his land to the purpose of affording the greatest possible net rent to him, as it is the right of the tithe-owner to exact tithes in kind. It is to this right of the owner of the soil, and the acknowledged comparative profit of grass over arable land, and the fitness of the soil for grass rather than corn, with the difficulty to farmers of small capital to cultivate corn crops, which demand a large supply of lime, or sand, or other manure to be brought from a distance, while the corn crops must be marketed at a great distance, that the low rate of the tithes in the western counties is, in some and a great degree, to be attributed. It is also in some, and in no small degree, to be ascribed to the kind and honourable feelings of the clergy, who, in general, are farmers for domestic purposes, as a means of maintaining a more suitable hospitality on incomes comparatively small, and who well know the difficulty with which moderate rents, with the tithes, taxes, poor-rates, and other out-goings are raised by farmers, who for the most part commence with very small capitals, and rank for industry, and, in numerous instances, for intelligence and good qualities, with the most respectable occupiers of the land with large capitals. They are farmers who were labourers or bailiffs, and who personally, and with their wives and children, male and female, and poor children bound on them by the parish, perform, with the mutual interchange of labour with their neighbours, nearly all their work without paying any wages. Will you oppress them, by taxing them with the value of the produce of their titheable articles—in particular of their potatoes—the great and staple article of their culture? To withdraw 40 bushels of potatoes as the tenth part of the farmer's and cottager's produce of this article (and the average produce is 400 bushels), would be to cause an uni-

versal outcry and declamation, not to use the harsh phrase of curses, against the tithe-owner. Dissenters from the Church would increase; and if you shifted the burthen from the occupier, and made the charge in perpetuity on the owner of the soil, and he was a Dissenter, what would be his feelings? Potatoes are frequently raised on lands of very low annual value, say 10s. per acre; the tithes would be 40 bushels of potatoes; and a single crop gives in one year's value about one-seventh part of the fee-simple value of the land. Is this a measure to be enforced by the enactment of a British legislature? Some lands have been in potatoes for many successive years. Take seven years, and the value of the entire fee-simple is absorbed. Will not this be the immediate and direct application of the law to the lands which have been appropriated to the cottage or allotment system?

In still greater degree the infliction would fasten on the lands employed in raising costly crops, *e. g.*, hop-yards, market-gardens, teazles, wood?

You may say, they shall be protected. The protection is not because the tithe-owner has not a right to tithes in kind; his right is as complete and perfect as it is to the tenth part of potatoes, or of crops of corn, when raised by extraordinary outlay of capital in lime, sand, oat-cake, bones, or other expensive manures, without which there would only be a crop of 10 or 15 bushels, instead of 24, 30, or even 40 bushels. The natural produce being 10 or 15, the tenth of this produce ought in justice to satisfy the tithe owner. Is there any justice in his demanding two or three bushels, or double or treble tithe, because the cultivator has been a highly useful and energetic member of society, instead of being a drone or a sluggard, or wrapping his talent in a napkin? Could Parliament so deal with machinery, and tax the employment of capital, would your imports and use of cotton have increased as they have done between the year 1792 and the present period? being nearly the identical period during which British husbandry has, under a system patronised and encouraged by a patriot King, and fostered by a British Legislature, even more than trebled the produce of the soil, and, in the result, the rental value of land, and the corresponding increase of the value of the tithes. A compulsory power of enforcing a valuation of property at a period when it is in a state of management in which it could not, with prudence, have been, if a measure of value founded on that state of the property could have been anticipated, is unjust in the highest degree; and though Parliament has the undoubted power, it has not a constitutional right, to change the state and value of ownership, by substituting a fixed perpetual charge on land, in the place of a variable uncertain burthen, not directly affecting the land.

This is more especially true as applied to property so circumstanced that no general rule or standard can be correct or just, as applied to lands of different qualities, differently managed, in a different mode of occupation, and of which the proper and judicious management depends on circumstances, which frequently vary, and are peculiar to each district, and often to each individual occupier.

The case of the market gardener, as applying to a single acre, exhibits the enormity of the system of tithes taken in kind.

Ten pounds of rent, with 40*l.* of capital, produce five times the amount of capital, *i. e.* 200*l.* The

farmer who cultivates potatoes for his cattle, either in aid of turnips, or as a substitute for them—and in many cases they are a useful and almost necessary substitute—will use 10 acres, worth 20s. an acre, or less, but say 10*l.* of rent. His capital employed must be 8*l.* an acre. His produce may be estimated at 200*l.*, viz. 400 bushels an acre, at 1s. per bushel; though, in truth, this is more than 50*l.* per cent. beyond the usual value to the farmer; while to the person who withdraws the tithes from the farm for sale, they are on the average of years worth that rate; so that the farmer pays on this article equally, and indeed more, out of his capital than the market gardener.

On an accurate estimate of Norfolk farms of the rent of 1*l.* per acre, the produce in value of four acres in wheat, barley, turnips, and clover, will be 20*l.*, or 5*l.* per acre. The tithes are one-fifth of rent, or 4s. in the pound. On the value of produce they will be increased to 6*l.* per acre, *i. e.* 50 per cent., after deducting the allowance of four-tenth parts, or 40*l.* out of each 100*l.* On the farms of that venerable and venerated agriculturist, Mr. Coke, the tithes will, in consequence of liberal expenditure on lands of inferior quality, be full two-third parts of the rent.

Mr. Mills' statement of 42 farms, p. 24 of "Simple Equation of Tithes," published by Hatchard in 1817, gives an average produce of 763*l.* for each average farm of 161*l.* rent, and the fluctuation of averages may be accounted for by the larger or smaller proportion of grass on each farm. This is a curious and interesting document. It was taken from a return to the Board of Agriculture.

For the honour of the clergy (and the opportunity of collecting the sentiments of many has occurred,) they never expected more than a reasonable part of the rental value of the land. Of late they were apprehensive of spoliation of the Church, or reduction of their income. It never entered into their imagination, that in three cases out of four their income should be very materially increased, still less that they should be relieved from the approach of the sturdy occupier, and their difficult and costly remedies; and have the great and high privilege—and it is a new privilege—of a right against the owners of the soil with the right of distress and preference in enforcing his income. The compulsory clause also has the vice, that it will discourage voluntary arrangements founded on former compositions. The still greater vice of the measure is, that it takes the value of actual produce, and not of annual rental, as the basis of commutation.

Let the actual increase of income be to the tithe-owner in the same rate as to the landowner, and neither party would be injured, and both parties would be, at least ought to be, satisfied.

Let rental value be the criterion, graduated by different rates on, 1st, arable lands; 2d, grass lands; 3d, mowing lands; 4th, up and down, or convertible lands (*i. e.* sometimes in crop, but generally in grass); and lastly, waste-lands; and the greater part of the difficulties would vanish.

That rental is the just criterion, no one can doubt. Its justice is proved by experience. Let a parliamentary inquiry be instituted into the mode of dealing with tithes for different periods of 20 years from the year 1700, when, judging from the land-tax, the rental value of the kingdom was only 5,000,000*l.* a-year; or only from the establishment of the sinking fund, when it did not exceed 20,000,000*l.* a-year; and it will be found

that the system of taking tithes in kind, or even a composition founded on the actual value of crops, constitutes the exception, and not the rule, by which the tithe-owner—frequently too a lessee, or a sequestrator, for the benefit of a creditor or a body of creditors—has been governed.

The bill protects the clergy, by imposing the necessity of the concurrence of the incumbent, the patron, and the ordinary, to a perpetual commutation. It places a check on the clergy by providing that the rate of commutation shall be 60 per cent. on the value of produce, in case the composition has been of lower amount. It also provides that if the composition has exceeded 75 per cent. on the value of produce, it shall be reduced to that amount. Thus, between two classes, there is, without any reason, a difference of a quarter in favour of the rapacious tithe-owner over the mild, meek, charitable Divine, who has been content even with his 3s in the pound on the fair annual rental value of the land. Denying the constitutional right of parliament, consistently with established principle, to carry this bill into a law, against the will of the landed interest, there is flagrant injustice in making this distinction. Either one class is to have more, or the other class is to have less, than is a reasonable equivalent. What rule in ethics, or in politics, can support the distinction proposed to be made? It is at least an invidious one.

This very difference would of itself create a just reproach against British legislation.

It is a proof that the framers and supporters of the bill dare not, by positive enactment, make one general and universal rule for all cases, although all cases are equally open to one rule; say, if you please, the class of 75 per cent. ought not to be reduced to a lower scale, because a higher scale has been paid to them. The same principle would apply to persons who, and whose predecessors in ownership, live in districts in which the rate of tithes has been governed by rental value, and not by value of actual produce; proprietors of this, by far the larger, class will be involved, most unexpectedly, in immense loss, and many in ruin, more especially should parliament take from them, as the bill proposes to do (by the clause under which the tithe-owner may, at an early period, require a valuation,) their acknowledged and indisputable right, by a judicious and proper, as distinguished from a vindictive, management of the property, &c., by planting, or other similar means, to relieve themselves from the ruin which, in instances to the amount of many millions, infallibly awaits them.

These observations are dictated by a sense of duty; a duty to the public, flowing at the same time from a personal interest, with a very large experience on the subject.

The case of the writer is one of very peculiar hardship. Over a large tract of country his outlay of capital has already increased his actual payment for tithes in a very high degree; and the bill if carried into a law, would tax him in a still higher degree, by an assessment founded on the value of produce or crops which never would have existed could he have foreseen that the value of produce, and not rental value, would be enforced by law, without having any right of changing a mode of husbandry which, in the result, will be highly injurious, to a mode which would be profitable, and would be consistent with the law as it had existed from the first establishment of tithes, and the views and plans formed at the time of outlay.

The pressure of the bill, when a law, will be felt more severely on small farms, and on lands occupied for convenience, than on farms of an extent to be properly termed agricultural. In proportion as the farm diminishes in extent, the capital, in particular capital in the labour of the occupier and of his family, increases.

It may be assumed that the number of farms of different classes in acreable extent, as constituted of acres by 1000, 500, 300, 200, 100, 50, 30, 20, 10, give a proportion in each class, by a multiple, in favour of the farms as they graduate in the declining scale.

The like scale of gradation is to be found among the fund proprietors and the owners of realised capital in land. For one farm of 1000 acres or upwards, there are 100 under 100 acres; and in each gradation the increase in number is in favour of the smaller farms. It is a curious fact, that the number of fund proprietors and of freeholders is nearly equal.

It is notorious that as farms diminish in extent of number of acres, the acreable capital, and consequently the rateable value of produce, increases; for example, a small farm of 10 acres employs the labour of the occupier and of several members of his family: and the employment of their labour constitutes a most important and valuable substitute for capital in money. 3*l.*, 4*l.*, or 5*l.* in the value of labour abundantly compensates for capital applied on a larger farm in hiring labour.

The produce uniformly corresponds with the application of labour and manure, which are the great sinews of agriculture. Such small farms and their owners will suffer in an eminent and peculiar degree, in consequence of the increased value of produce from such extraordinary labour &c.

Does the legislature mean to affix a punishment on the individuals who, from patriotism or kindness of feeling, or even attention to their own interest, have formed and encouraged farms of this description, so useful to the community and the state?

The proposed measure will annihilate all the rental value of these cottage farms, and of lands appropriated to the allotment system.

The origin of tithes, or their original distribution, is a subject which the writer does not wish to discuss; but unquestionably if the tithe-owners insist on their right, as secured to them by strict law, parliament, and through parliament, the public has a right to inquire into the origin and original distribution of tithes, and administer justice to all parties. The clergy must be aware that their enemies are at their post, and that many are anxious to see the Church of England in a condition with the Church of Ireland; and with the great difficulty, if not impossibility, of collecting tithes from the occupiers, even at the point of the bayonet, or with the aid of the military. Every honest man and every good clergyman will be cautious how he gives encouragement to this spirit. How truly happy would the clergy of Ireland be, could they be placed on the same footing as would be readily conceded to the clergy of England—a strong argument for commutation, without more than reasonable delay; and it is the honest opinion of the writer of these observations, that the clergy are as anxious as the laity for a just commutation of tithes on terms such as would meet most cordially the views of the writer. And in every arrangement the difficulties in which the

landed proprietors of England are placed by the advantages, in respect of tithes, existing in Scotland, and of tithes as enacted, and likely to be further enacted, for Ireland, must be weighed, each country being now, by steam power, possessed of equal advantages with the English farmer in his own domestic market; and, in justice, the final arrangement of tithes for England and Ireland ought to be concurrent.

To conclude, the sum of these observations is—  
1st. A commutation of tithes on just principles is most desirable for all parties, and will be useful to the state, as promoting peace and harmony between the clergy and their parishioners.

2nd. A direct charge on land, with summary remedies, may be conceded as a fair equivalent for commutation, and with a variation governed by the price of corn.

3rd. Voluntary arrangement, and not compulsion, ought to be the principle of commutation.

4th. The terms of commutation must in general be governed by a proportion of rentable value, and not by 6-10th parts or 3-4th parts of the full value of the produce of the soil; since an estimate by such produce is unusual, and in the far larger proportion of the country would be unsatisfactory, and frequently ruinous and destructive.

RICHARD PRESTON.

FROM THE LAST EDINBURGH REVIEW.—“We showed in article 6 of No. 120, that in the opinion of men of the highest respectability and intimately acquainted with the state of agriculture, that the raw produce of England might be well nigh *doubled* without greater proportion of expence, and whoever has observed the Lothians, and other well farmed districts, and compared them with extensive tracts in the south west of England and Wales, will be satisfied this is not exaggerated. It is indeed remarkable how very backward some parts of this island are compared with others. In many, four or five horses and two men are still employed to do that which is far better done in others by two horses and one man, and in many parts drill husbandry can hardly be said to be introduced. This shows that we are possessed of vast capacities not yet brought into activity, and that the career of improvement may be continued for an almost indefinite period.”

A suggestion by eminent practical men, submitted to the consideration of Members of Parliament.

“From a general knowledge of England and Wales I have not the slightest doubt that their produce might be *DOUBLED* by the Scotch system of agriculture, which is here in course of trial on at least a million of acres, and although it would lower the price both of grain and butchers' meat, farmers would *GAIN* more by quantity than they could lose by the fall of price.”

(Signed) WM. BLACKER.

Armagh, February 15th, 1836.

Author of the prize essay on the management of landed property in Ireland, and Steward to the Earl of Gosford, Colonel Close, &c. whose tenants he enabled to pay off their arrears of rent.—(See the 27th number of the Scotch Quarterly Journal of Agriculture.)

And official inquiry confirmed the great advance made in agriculture owing to the ENLIGHTENED AND SYSTEMATIC exertions of Mr. Blacker, under the FOSTERING CARE of his employers.

Signed by order of the Poor Law Commissioners.

HAMBLETON DOWDELL, Secretary.

Dublin, September 1st, 1835.

## TITHE COMMUTATION.

The following resolutions were adopted at a meeting of the general committee of the Central Agricultural Society, held on the 18th of March, at the Crown and Anchor Tavern, Strand, London,  
RICHARD SPOONER, Esq., in the chair:—

1. That tithes are an uncertain and contingent profit, depending upon the capital and industry, and even upon the will of the occupier, in as much as he may keep the land in a highly productive state, or may so use it as to make it produce no matters liable to tithes, or may leave it wholly waste and uncultivated, and that tithes are not a charge or *lien* upon the land, but a mere *personal* demand upon the occupier.

2. That nevertheless the principle of the bill, which is to establish a perpetual commutation, founded upon the average value of the tithes payable for seven years past, very erroneously and unwarrantably assumes, that the owners are forever bound to make the land yield, for the benefit of the tithe-holder, the same quantity of titheable produce which it has yielded to the occupier for the last seven years, and converts a temporary and contingent profit, resulting from the capital and skill of the cultivation of the land, into a perpetual charge upon the land itself.

3. That although the conversion of a tax upon the capital of the occupier into a tax upon the land itself, and the consequent transfer of the burden of tithes from the occupier to the owner, seem necessarily to imply, that a reasonable proportion of the net annual value of the land to be let, would be the fair and just principle for a commutation of tithes; yet the bill, nevertheless, charges upon the landowner, for ever, the value of the tenth of the gross produce of the land for seven years past.

4. That this committee is of opinion, that any change of the nature of a title to tithes by fixing them as rent-charge upon the land itself, without any consideration for the incalculable advantage to be derived by the tithe-holder from the exchange of an uncertain and precarious income, depending on *personal* security, for a certain income, founded on the best and most eligible of all *real* securities, would be a violation of the rights of private property in land, unexampled in the history of legislation.

5. That the imposition of a perpetual rent-charge, to be estimated by the former production of the land, will be attended with the most ruinous consequences to the landowners, and especially in those numerous cases in which, owing to the depressed state of agriculture, highly cultivated lands have been, and must shortly be, thrown out of cultivation, or deteriorated in culture and value; but the bill makes no provision for the change of culture in any lands, except the very remarkable and unaccountable proviso in favour of hop-grounds, which may cease to be cultivated as hop-grounds; although gardens, orchards, and all other cultivated lands, are equally entitled to the benefit of a similar proviso.

6. That it appears to this committee, that the per centage deductions professed to be allowed by the bill in *cases of compositions*, subject to the power given to the tithe-holder to demand a valuation of the tithes in kind, without any deduction for the expenses of collection, or otherwise, are nominal and illusory; the produce of such lands having been in most instances, very greatly increased, and in many cases wholly *created* by capital expended upon the faith of an actual exemption from tithes, by means of such compositions.

7. That this committee is of opinion, that it is contrary to the principle of equal justice to give the landlord's remedy by distress and entry to the tithe-holder, and to leave to the landlord the tithe-holders' mere personal remedy against the lessee or tenant of the land; and that the power of distress and entry, so given to the tithe-holders, will materially interfere with the landlord's remedy for recovery of rent, and his right of property and sole dominion over the land; and that such conversion of land-owners into tithe-holders, will be peculiarly oppressive to those religious communities and persons, who, as in the case of Quakers, are prevented by religious and conscientious scruples from becoming the holders of tithes.

8. That the bill, contrary to all legislative precedents, contains no provision for the protection of exemptions from tithes; from which it may be reasonably inferred, that it is intended to destroy, or subject to a severe and partial inquisition, all moduses and discharges from tithes throughout the kingdom.

9. That the following, amongst other provisions of the bill, appears to this committee to be highly objectionable, viz., the appointment of tithe commissioners and valuers, in the choosing of whom the land-owners have no voice, and who may be possessed of no local knowledge, the power given to the tithe-holder to force a commutation upon the land-owner; the clause which enables the owner of three-fourths of the land, (who is himself frequently the holder of the tithes,) to make an agreement to bind the remaining land-owners; and the half-yearly payment of a rent-charge for tithes (which are only payable annually), without any deduction on account of such half-yearly payment.

10. That the committee, after the fullest consideration, is decidedly of opinion, that a compulsory commutation of tithes, based on any other principles than are contained in the foregoing resolutions, will be most injurious to the owners and occupiers of land.

11. That very great encroachments have been made in modern times upon the rights of tithe-payers, by overturning moduses and exceptions from tithes which had been enjoyed for many generations.

12. That a just and equitable revision of the law of tithes ought to precede or accompany any legislative enactment for the commutation of tithes.

13. That the bill lately brought into Parliament by the noble lord, the Secretary of State for the Home Department, for the commutation of tithes, is vicious in principle, inadequate in its provisions for the object which it professes to contemplate, and would, if carried into a law, be productive of serious injury to the best interest of the country.

14. That the above resolutions be printed and circulated amongst the members of this Society, and the Local Agricultural Associations which have subscribed to the funds of this Society.

**A DOG CHURNING MILK.**—There has been in operation for some time past on the farm of Auchyle, parish of Port, Perthshire, occupied by Mr. Peter Ferguson, an ordinary sized staff or plunge churn making the butter from 16 or 18 cows—the propelling power of which is a colley dog. The machinery necessary for the process is exceedingly simple and cheap, and as a proof of the feasibility of the plan, which must prove a considerable saving to the dairy farmers, several of Mr. Ferguson's neighbours are about to enlist into their service the same kind of animal power.

## TITHE COMMUTATION BILL.

MR. EDITOR.—I trouble you with the following observations, because I should be sorry, on private as well as public grounds, that the tithe commutation bill should be rejected, through its containing the very decidedly objectionable principle so well remarked on by you this morning.

I never could conceive why the framers of the measure departed so widely from the principle of the tithing system, as to make tithes a fixed charge on land. By the principle of the tithing system I mean, that the tithe-owner thereby takes the chance of receiving nothing, if nothing is produced, as well as of receiving more if more is produced.

Now I conceive it would be best to adhere to this principle in any new system. This would be done by making tithe a variable proportion of rent, thus altering the particular chances, but not abolishing the abstract risk of gain or loss. Under the new bill, it would be very easy to declare that the tithes, as by that bill to be ascertained, shall for ever after be the same proportions of their corresponding rents that they are now; the corresponding rents to be ascertained, either by the present actual rents, or by means similar to those to be enacted for ascertaining tithes.

The alterations hereby made in the tithe-owners' chances of gain or loss, will be best seen by attending to the following formula:—

Produce—expenditure—rent where expenditure includes profit.

Now if tithes be made to vary as rent, when produce decreases, but expenditure decreases still more, tithes will gain instead of losing as they must if tithes vary as produce. If produce increases, but expenditure does not increase so much, tithes will gain more than they would when increasing only with produce.

Here, then, is a decidedly beneficial change for the tithe-owner, and no burden or obstruction to the landowner or occupier.

Again, if produce diminishes and expenditure does not diminish so fast, tithes will lose under the new system faster than it would under the old. The chances, however, against the practical possibility in this case are immense, but it would be trespassing on your space to state them. If, however, you wish it, I will do so.

If expenditure increases without produce increasing so fast, tithes would again lose faster than at present. The chances against the happening of this case are likewise great. The principal chance against it seems to consist in this: that the same cause which leads to an increase of outlay, without a corresponding increase of produce, tends to diminish profits and to increase rents. In other words, the part of expenditure which increases is made up by that part—profit—which diminishes. In neither of these latter cases then, is there any burden upon agriculture, while the titheowner's chances of loss are likewise compensated by an improved method of collection.

I am, Sir, your obedient servant,

Monday. W. P. GASKELL.

Grass Parks are letting considerably higher this year than last—Loudoun, Lanfine, Rowallan, and Hapland, were all lately let at a considerable advance, most of them as high as 8s and 10s an acre above last year's prices.—*Kilmarnock Journal*.—(We believe the same may be stated as to this county so far as letting has yet taken place. The advance is partly attributed to the increased trade in fattening live stock for the London market, which has been hitherto a remunerating one.—*Perth Courier*.)

## OBSERVATIONS MADE BY J. II. HERPIN, D. M. P.

ON THE PRODUCTION OF A VIRULENT ULCER  
IN MAN THROUGH CONTACT WITH DIS-  
EASED SPLEENS OF SHEEP.

TRANSLATED EXPRESSLY FOR THE FARMER'S  
MAGAZINE.

*From the Annals of French Agriculture, for Jan, 1836.*

About the 16th October 1834, when the epidemic which had been ravaging our flocks seemed to lose some degree of its violence, I observed upon the back of my shepherd's left hand, a small red tumour, the summit of which was about the size of a pin's head, and black as charcoal. The man had just been engaged in opening a sheep of which the spleen appeared completely disorganized.

I questioned him respecting it, and he answered that he had torn his hand slightly against the hoops of the tub in which the corn for the fowls was kept; but he added, that it did not appear disposed to heal readily; it had been done about three days.

The idea struck me immediately that this was a genuine ulcer. However as I had not seen the ulceration from the first, as no animal on my farm had been so affected, and as the man explained the origin of it so plausibly, I desisted from my interrogations, being unwilling to cause uneasiness which might be utterly groundless; but I resolved to watch the progress of the disease most carefully. I advised him to wash the part with some vinegar and water as the animal he had been opening smelt badly.

The next morning the black spot had increased but the man did not complain much; however, on the following day, he came to me for some linen to cover it.

At this time the black speck had increased to the size of a 50 c. piece, and was surrounded by an inflamed, red, shining circle upon which appeared several vesicles, true phlyctenæ, about as large as grains of corn; from the centre of the spot issued a bloody serosity; the hand and forearm were much swelled, and the disease presented every appearance of a virulent ulcer.

I applied compresses saturated with vinegar and laudanum to the part; and advised the man to go to a skilful surgeon in the neighbourhood immediately, who would do what was requisite. The applications allaying the pain, the man thinking himself better did not proceed to the surgeon; but on the following night he was attacked with nausea and vomitings; the spot having attained the size of a crown piece; the interior was of a pale black colour; phlyctenæ as large as walnuts covered the back of the hand; the arm was swelled as high as the elbow; and the man's spirits were very low and anxious.

I sent him immediately to the surgeon, who recognizing the character of the disease, at once excised the gangrenous parts, and cauterised the wound with nitrate of mercury.

Gangrene had spread so fearfully that after the sloughing, the extensor tendons of the fingers lay bare; and for several days I was very uneasy as to the termination of the malady.

However, through good treatment, Charles recovered his strength and resumed his occupations; the wound had a healthy appearance, and was nearly closed when I left the country on Dec. 30, 1834.

This man was of a sound, robust constitution, sanguine temperament, and about thirty years of age.

## ON THE CAUSE AND REMEDY OF CURL IN POTATOES.

By MR. JOHN RANKINE, GARDENER, KILSYTH.

*(From the Report of Drummond's Agricultural Museum)*

Having cultivated the potato in garden ground for a long period of years, during which I have had the mortification of witnessing one generation after another of my very best varieties literally curled out, necessity, which generally proves the mother of invention, urged me to endeavour, by all means, to find out the cause, and, if possible, the remedy of an evil of such magnitude. The question that most naturally presented itself arose from the fact, that the potatoes of the garden are more subject to the curl than those of the field, and those of fields most under the plough than those of fields that were least under it. After examining and experimenting in a great variety of ways, I came to the conclusion that the cause of the disease, for disease it is, must be the over-working of the land. When land is too short rested or pastured, lying in lea only one, two, or at most three years, its heart becomes broken, and unable to perform its proper functions—the soil does not possess stamina or strength sufficient to nourish and bring forward the tuber, so as to fit it for producing healthy shoots when planted out next season. Light soils are more apt to go wrong in this respect than those that are heavier and retentive. Lands would require to be rested from six to eight years, in order to recover or retain their healthy and vigorous constitution. In a garden which is constantly wrought, potatoes will not preserve their healthy state above a year or two.

The remedy is, when cultivators cannot, or will not, pasture their land a sufficient length of time, they should obtain their seed potatoes from districts where soil is not so much wrought, such as muirish, high lying, retentive tracks; the encouragement there not being so great as in the lower and more fertile, to tear and exhaust the necessary quality in the soil. I have always found seed to turn out well, brought from such places where they had not been planted above once in six, or perhaps eight or ten years. Another remedy is to select from any field that had been well rested, the healthiest and most vigorous shaws, marking them while green; avoiding all those that seem at all inclined to curl, for their progeny will generally be found more confirmed in it; and when ripe let them be carefully pitted and preserved till the time of planting. In cutting these for seed take only the top set or eye, which is always the last that will curl, the eye next the root being the first that incurs the disease.

Successful practice, consequent on, and confirmatory of the views thus shortly stated, will, I trust, be deemed sufficient apology for my offering them to the notice of others. J. R.

A SECOND MILLO.—The following is an advertisement in a Hobart-town paper:—"Found on a suspicious person two remarkably fine working bullocks."—*Athenæum*.

## TO THE MARQUIS OF CHANDOS.

MY LORD,—As the great champion of the agriculturist, I address myself to you on a subject of what I conceive to be of the greatest consequence to the British farmer, and that is, that he may be fairly remunerated for his capital and industry in common with the rest of his Majesty's subjects. A great deal was said at the passing of the present Corn Bill, that it was not intended so much to benefit the revenue as to protect the cultivator of the soil. Now if that is the case, and at the same time the revenue have been benefited; that is, received considerable sums in the shape of duties upon the import of foreign grain, why not use those duties as bounties upon the exportation of corn of British growth, when the prices are so ruinously low as they have now been for a great length of time? It is my opinion that the very idea of a bounty on exportation would in some measure keep the prices buoyant, and prevent that deep distress which is now experienced. I do not know precisely what ought to be the amount of these bounties, but should suggest that, when the average of wheat is at or under 40s, a bounty of 10s might be allowed,—and for every shilling above 40s, up to 50s,—one shilling per qr additional should be added to the bounty, making 50s a bounty of 20s per qr; if with such encouragement we could in any one year be exporters of one million qrs of wheat over and above what is required for our own consumption, and which would realize to the exporter 30s per qr, the country would receive one and a half million pounds sterling for that which is entirely produced from the labour and industry of our own population. But I have no idea that one million, or even half that quantity, would ever be sent out in one year,—consequently the revenue would never be called upon for any large amount of bounties. I should suggest, also, that if any individual, not wishing to send his corn abroad, but should prefer warehousing it at home, such grain should go under lock, and be subject to the same duties, rules, and regulations, as if of foreign produce.

It may be said that the trading part of the community might find fault with any part of the revenue being employed as above; but when they recollect that parliament have granted, and are granting great privileges and conveniences in the shape of railways, &c., throughout the kingdom,—which privileges are principally for the use and benefit of trade, and in some measure to the injury of agriculture, in reducing the necessity of horses, and considerably lessening the consumption of oats, beans, hay, &c.; surely that will be a sufficient answer to such objections.

Much has been said about the currency; it is my opinion that the currency has but little to do with the price of produce. With so much capital in the country, how should it not affect the price of barley, oats, beans, wool, &c., as well as wheat? Depend upon it the demand and the supply will in all cases eventually regulate the price. I am sure there is no want of capital in the country. I remember when corn was sold in the Wakefield and Manchester markets,—and generally after giving a month's credit, was paid for in a bill at two months; now nearly the whole which you receive is in cash, for which the buyers receive a discount.

I should also recommend the introduction of poor laws into Ireland,—a small additional duty upon tallow, and also upon flax; the cultivation of the latter article is of vast importance to us,

and particularly to Ireland,—the preparation of which causes a great deal of labour. Something has been said about taking the duty off cloverseed; I object to it on the principle of its departing from a system of taxing all articles of foreign produce, whether consumed by the merchant, manufacturer, or agriculturist.—I am, my lord, your most obedient,

J. B.

March 15.

## AGRICULTURAL DISTRESS REMEDY.

The *Strathmore Journal*, in referring to this subject, has the following remarks:—

“The following distress took place last week as to the distress of the Scotch agriculturists, on the presentation of a petition from Ross-shire, by Mr. Stewart Mackenzie. We believe that the honourable member stated the best remedy for the depression of the tenantry, to consist in ‘an adjustment of the rent to the prices of produce.’ In a very few words, we have at once the ‘bane and the antidote;’ and to this reasonable arrangement, among agriculturists, landlords, and tenants, should direct their efforts. We rather think, that however accordant with commercial principles, the reduction of the duty on foreign seeds would neither be advisable nor practicable. In the first place, though the saving to the revenue would not be great, still many would suppose that some other party should be relieved in preference; and, secondly, the tax being taken off, the domestic culture of seeds might be consequently given up. Grass seeds are now cultivated to a considerable extent in this country, and we doubt not that their culture will extend, and may be not a little stimulated by the continuance of a duty on importation.”

The *Constitutional* after quoting the preceding extract, says,—

“We are not much in the habit of quoting the *Strathmore Journal* as an authority, either in accurate statement or sound reasoning—and we have therefore the greater pleasure in referring, with approbation, to the closing sentences in the above paragraph—sentences, the soundness of whose statements surprised us the more, after we had referred to the journal's file for March, 1834, &c.”

What the critic says of the theatrical stage, would seem to apply equally to the political, for when extreme parties “do agree, their unanimity is wonderful.” The singularity in this instance is not a little enhanced by the circumstance, that the unanimity is one in error, as five minutes conversation with any intelligent farmer, will at once convince them. The doctrine of protecting duties does not apply equally to clover seed as to corn; for this reason, that there is not exceeding, perhaps, a few tons of clover seed saved in Scotland annually. This is not owing to the want of protection and encouragement—for, in addition to the heavy protecting duty, the Highland Society and other local institutions, for several years, offered handsome premiums to the most successful cultivator of grass seeds; but the result of the trial served to show that the climate of this country was not favourable for the purpose, and the seed saved was not only inferior in quality, but the crop was less profitable than the usual rotation, and proved a great scourger of the soil. The well-known fact of seed grown under a favourable climate for ripening it, being always more productive than native grown, is peculiarly the case with grass seeds; and, therefore, the attempt to extend their cultivation has always met with the ill success which follows the endeavour to strive against natural difficulties. On these grounds we differ from our contemporaries, and consider that the reduction of the duty on foreign seeds would be both “advisable” and “practicable.”—*Perth Courier*.



## THE PARKS.

The observations contained in this letter are equally applicable to other parks and pleasure grounds, as to those particularly alluded to.

## THE CHIEF COMMISSIONER OF WOODS AND FORESTS.

MR. EDITOR,—Having frequently addressed you on the subject of the parks, and taking a very lively interest in these places of public resort, I venture once more to trespass on your valuable and impartial columns by requesting the insertion of a few observations, relative to these places set apart for the recreation of the people, in the earnest hope that what I am about to state may draw the attention of Lord Duncannon to this very important branch of the public property committed to his charge, and may induce him to continue and persevere in the good works of improvement, as well as embellishment, which have been commendably carried on by his predecessors. Much yet remains to be done, and I will venture unhesitatingly to say that every shilling expended in beautifying and improving the places appropriated for public recreation and amusement, so aptly termed *the lungs of the metropolis*—every shilling laid out in embellishing these delightful retreats from the noise and confusion of the crowded streets, will be an additional attraction in withdrawing the people from the gin-shops and public-houses, particularly on Sundays, and will aid, and very cogently too, in the attainment of the object Sir Andrew Agnew has been, through legislative interference, endeavouring to accomplish, by leading people to a cheerful, rational, and salutary observance of the Sabbath. After this preface I will proceed at once to my proposition, which is by the introduction of Rhododendrons, Calmias, Azaleas, and Andromedas, in very considerable numbers, to convert the three Parks and Kensington Gardens into *American pleasure grounds*. What I would suggest is to fringe the margins of *all the plantations* with these profusely-flowering shrubs, and to have a belt of them lining the gravel walk from the artificial waterfall on the Serpentine to the bridge at Kensington-gardens, opposite the Royal Humane Society's building. This will produce the rich effect of a mass of flowers interposing between the lake and the observer from the drive above either walking or riding, and from the opposite side to those in the carriages will likewise form an equally desirable feature in the landscape. The island and peninsula in St. James's-park, if covered with rhododendrons, would greatly enrich the views from the Palace windows, and would produce a most brilliant effect from every part of the park. The advantages of this class of flowering ornamental shrubs are great and numerous.

1. Their hardness and cheapness are strong recommendations. Mr. Hammond, of Bagshot, offers a number of strong plants of "rhododendron ponticum" at 33s a 100—somewhere about 16l 10s a 1,000; this price to include carriage. They are of rapid growth, and have the habit of growing and expanding *outwards* more than *upwards*, thus increasing in bulk instead of altitude, and seldom attaining a height exceeding four or five feet. They become most admirably suited for a fore-ground to all ornamental clumps of trees and young plantations.

2. The ease and facility with which all this class of plants may be transplanted and removed at any time, at any size, and at any age, and so far from

being injured by this process it is rather beneficial to them than otherwise; never requiring to be cut down to thin the plantations, or pruned, to waste, as is the case at present with the recent plantations in St. James's park.

3. The consequent increased value of the plants as they grow in size and age, and become stock, ready whenever required for making additional improvements and clumps of flowering shrubs in other parts of the Parks—any apprehension of damage by transplanting being needless.

4. The very seasonable time when this beautiful class of plants come into flower, blossoming from the middle of May, and continuing their loveliness till the end of June, the very time when London is filled, and all the world at hand to enjoy the gay display. After which the rhododendrons, being ever-greens, will be ornamental till the returning spring calls them into beauty again; and in the islands of St. James's-park they will both in winter and summer afford the very best protection for the water-fowl. Whilst when in flower the reflection on the water of such immense masses of blossoms will be of unrivalled beauty and magnificence. All these advantages combined will, I most earnestly hope and trust, induce Lord Duncannon to lend a favourable ear to this proposition. Our four Parks will thus become, and very shortly too, the most beautiful and enjoyable public grounds in Europe, and at no great expense either, for Messrs. Loddiges, of Hackney; Waterer, of Knap Hill, Surrey; and Jenkins, of Portman Nursery, have all large stocks of American plants at reasonable prices. In conclusion I will quote a passage from a recent work on ornamental planting:—

"The beauty of English park scenery is universally admitted—the constant source of fresh admiration to foreigners, and of delight to ourselves. It may, perhaps, be briefly described as the art of imitating, in small compass, the most lovely scenes of external nature. In a pursuit so fascinating, the most elegant mind may find amusement, the most active benevolence room in which to dilate, in eliciting from crude materials new forms of beauty, converting the once naked district with luxuriance, the worth of an estate (or park) is improved (and let me add,) *its enjoyable utility thrice multiplied*, health is improved, and charity the most useful dispensed. Many are the beauties in detail which may be gained by a more frequent use of foreign vegetation. In a well-ornamented park, where a judicious intermixture of foreign trees and shrubs are introduced, the interest is not confined to the picturesque effect they produce, for they remind us of the climes whence they come, and the scenes with which they are associated.—Always, Mr. Editor, your constant reader.

RUS IN URBE.

MR. EDITOR,—It was my intention some time ago to do myself the pleasure of sending you an account of the *Lolium italicum*, a species of ryegrass lately introduced from the Continent, and with which we have been making experiments at the Farm through the summer; but wishing to see how it stood the alterations of the weather through the winter, the communication was deferred until now.

It was sown on the 1st of May, and although the weather at that time was exceedingly dry, we were astonished at the rapidity of its growth. It was five inches high on the 14th, and on the 23rd

of June it had attained the height of twelve inches. It was cut on the 1st of November, and again cut in the beginning of January; producing each time heavy crops. It appears to partake more of the qualities of the natural grasses than the rye-grass, being in a great measure divested of that stickiness which characterises all the loliums. Horses, cattle, and hares prefer it to all other grass: the hares seem to have set their affections on it—disregarding alike the admonitions of trap and snare.

The *Buliten des Sciences Agricoles* says, "This plant is distinguished from the common rye-grass (*lolium perenne*) by its larger leaves, by its being of deeper green, and by the greater height to which it grows. It is usually sown in the autumn, as is the general practice in the South of Europe. If it be sown with clover or lucern it will quickly choke them, its growth being so rapid. It is softer, more juicy, of a richer foliage, and more relished by cattle than the common rye-grass." It is not yet ascertained whether it is an annual or perennial. Were we to cultivate this hybridous plant extensively, we would sow it on land under a corn crop; but not until the corn had attained a sufficient height to exclude part of the light and air—so beneficial to the growth of plants. This would, in a great measure, counteract the choking of which our Continental neighbours seem so much afraid. In my humble opinion this grass will, at no distant period, occupy a distinguished place in British husbandry.

If you think this worthy a place in your valuable paper, pray insert it.—I am, Sir, your most obedient servant,

JOHN BLACK.

*Marske Farm, March 17th, 1836.*

### IMPORTANT TO HOP MERCHANTS.

An action was tried a short time since in the Court of Common Pleas, of importance to persons ordering goods to be conveyed by sea. Messrs. Johnson and Co. hop merchants, of Aldermanbury Church-yard, the plaintiffs, sought to recover of Mr. Pattle, Grocer, of Bury, the defendant, 86l. 2s. 7d. the amount of an acceptance for ten pockets of hops, which were ordered by the defendant of the plaintiffs' traveller on the fourth of October, 1834, with directions to forward them on the following Thursday (the 9th) to the Wool Quay, on the water side, to be shipped by the next vessel for Ipswich. On the next day (the 10th) the defendant received by post an invoice of the hops, with a letter stating that they had been shipped. It appeared that a vessel "the August," sailed from that Quay on the morning of the 10th for Ipswich, and if the hops had been delivered as asserted on the 9th they would have been forwarded by that vessel, which safely arrived at Ipswich. The defendant, upon the faith of the statement made to him with the invoice, accepted the bill for the amount and returned it by post on the 10th to the plaintiffs. The defendant not having received the hops, wrote to the plaintiff on the 20th, inquiring about them, and received in answer a letter from them repeating their former assertion that they had been sent to the wharf on the 9th. It appeared, however, that they had not been sent until the following Tuesday (the 14th) when they were shipped on board "the Neptune" for Ipswich, and that vessel with all the cargo was lost at sea. The defendant, hearing of the loss, wrote to the plaintiffs either to return his acceptance or to send him ten other pockets in lieu of those which he had not received; this they refused to do, and brought this ac-

tion for the amount of the bill, contending that the loss was the defendant's. Mr. Sargeant Wilde conducted the plaintiff's case, and Mr. Kelly the defendant's. The Lord Chief Justice charged the Jury, who, after a short consultation, returned a verdict for the defendant.

HEREFORD.—*John Collard*, toll collector at one of the city gates, appeared before the magistrates under the act of the 4th Geo. 4, for having on the 4th and 7th of March instant, demanded and received from T. Tringham 1s 3d each time, as toll for three horses to which a thrashing machine was attached, instead of 4½d the usual charge.—Mr. Sill appeared for the complainant, and Mr. Humfrys attended for the toll collector.—T. Tringham was examined at great length, and proved to having paid 1s 3d in the first instance, and having his watch detained on the second, which was afterwards given up on payment of the money.—Mr. Humfrys, in a very long and eloquent address, ingeniously endeavoured to show that thrashing machines were liable to toll, and were never intended by the legislature to be exempt, as it was only by a straining of the words of the act of parliament that a thrashing machine could be considered an implement of husbandry, any more than a cider mill, or any other engine employed in agriculture. He cited a variety of authorities in support of his opinion; urging the magistrates to dismiss the case, as in the event of a conviction, there could be no appeal against their decision but to the quarter sessions; when, if the case was dismissed, persons claiming exemption of toll for thrashing machines might bring their action, and the first law authorities of the kingdom would then decide upon the case, and set the question at rest for ever. Mr. Sill, for the complainant, contended that the thrashing machine was as much an implement of husbandry as a plough or a harrow, inasmuch as it was wholly and solely for agricultural purposes. He quoted an authority to show that machine and implement were synonymous, and said that he perfectly agreed with Mr. Humfrys on the impropriety of straining the meaning of acts of parliament, and therefore, as this act of 4 Geo. 4, was framed for the peculiar benefit of the farmer, it would be indeed straining its meaning to decide that a thrashing machine—an implement now in such general use—was liable to the toll. He pressed the magistrates to convict; and said that if the defendant found himself aggrieved, he might appeal to the sessions, where the magistrates, residing as they did in an agricultural county, were quite as capable of deciding what was, or was not, an implement of husbandry, as the king's judges could be, who were living in London. The mayor said, that he and his brother magistrates were decidedly of opinion that a thrashing machine was an implement of husbandry, and was no doubt considered as such by the commissioners of the turnpike trust. He must therefore convict the defendant for enforcing the toll in this case.—Mr. Humfrys said, that whatever his own opinions were, he bowed with submission to the decision of the magistrates; but as the act of parliament was worded ambiguously, and his client had no doubt erred in consequence of considering that thrashing machines were liable, he (Mr. H.) trusted that the magistrates would mitigate the penalties.—Mr. Sill said that he was instructed by the complainant not to press for the full amount of the penalty, and also not to press the second case to a conviction.—The mayor then ordered the toll collector to pay 20s and 6s costs, which was paid.—*Hereford Times.*

## AGRICULTURAL REPORTS.

### BERKSHIRE.

Towards the end of the last month we had a great deal of rain and snow, and up to the present day the weather continues unsettled; the land, in consequence, has become so wet that the plough is stopped, except on light Down land or sandy or gravelly soils. The farmer who is silly enough now to try to get forward by cross ploughing strong or clay soils, will find to his sorrow that he has been making double work, and perhaps lose his crop into the bargain. Most of the beans and peas in this county are planted, and the land finished off exceedingly well. A considerable portion of the oats have been sown under the most favourable circumstances, but those who neglected to get in the oats on the strong land during the dry weather must now wait with patience until the weather is more suitable. Most of the barley land has been cross ploughed, and will be in a most excellent state for the reception of the seed, provided the weather is dry; but if the sowing season (now the land works so fine) should be wet, it will be a bad job, as the strong flat land would be little better than a heap of mud. Barley sowing will commence as soon as the weather will permit, as it is well known that the early-sown generally produces the finest quality, and the high tax upon malt excludes almost all other sorts from being malted, except in years when there cannot be obtained a sufficient quantity of the best quality. A pretty large breadth of the Chevalier barley will be sown this season, for on some soils, and when sown early, the quality last year was most excellent; but some farmers seem even now to be fearful of sowing any great quantity, as it certainly will not stand a wet harvest, and in some places does not yield near so well as the old sorts; we know of some few brewers who refuse to use the malt made from the same, because they say the beer made from such malt will not keep, while other brewers speak altogether so highly in its praise. The thrasher does not like the Chevalier barley at all, and complains that it both thrashes and yields far worse than any other sort. The opinion of persons respecting its merits seem to be vastly different, but still we think that most persons will try a little of it this season. We are sorry to report that the wheat is of late very much altered for the worse, and many persons begin to be seriously alarmed at the appearance of the plant, and are fearful that in some places the whole of it will die; on high hills and in exposed situations, and especially where it was sown late, and the land not in high condition, it looks nearly as bare as a fallow field, and scarcely a blade can be seen; and we hear already of many pieces being doomed to be ploughed up and sown with other grain. It appears that the frosts have so hollowed up the soil that the root has nearly, or quite, let go of the same; and the sharp cutting winds having at the same time withered the blade, the plant has been destroyed, or so materially injured, that it is fearful much of it will never recover. It was hoped that the late heavy rains would have again settled down the soil, and have enabled the plant to take a fresh hold, and in some

instances this has been the case; but much of the late sown wheat that was not pressed down firm at the time it was sown, now cuts a most deplorable figure, and the utmost anxiety and fear is entertained by the owner that he shall have a failing crop. The wheat has not for many years assumed such a blind and barren appearance in the month of March as it does at the present time, and many farmers are anxiously waiting to get the land dry enough to press it down with a heavy roller. Vetches and winter barley are both looking bad, and the continual frosty or wet nights make their appearance get worse and worse. The young grass has been also much cut up by the frost, and in some situations it has lost stock, and there will be scarcely half a crop. The trifolium in many places is completely gone, and not a blade left behind, while in some other places it seems to stand its ground pretty well. Turnip seed has become uncommonly scarce; the land being most of it sown two or three times over last season, and as there are this spring but few turnips that can be left for seed, it is fully expected that turnip seed cannot be cheap for at least another year to come. Swede seed is tolerably plentiful, but as Swedes are now become quite a favourite with the farmers, a large quantity of seed will be required. Potatoes are scarce, and good ones are selling as high as from 7s to 10s per sack. The weather of late has been very unfavourable for young lambs, and many have perished from wet and cold. The ewes in many places are very poor and short of milk, and there is little or no food for the lambs, and we seem fearful that the number bred this season will be much less than usual. There has been but few ewes die this season, and we scarcely ever hear of much loss of ewes in the lambing when they are in poor condition. The lying so much on the hot dung in the yards, because the weather has been so unfavourable, has in some places brought the scour amongst the lambs. Sheep keep is likely to be very scarce. Pigs have of late risen in price most rapidly; and young colts seem to be getting dearer. The deficiency in the crop of wheat last year has at length been discovered, and since our last report the wheat has advanced in price about 10s per qr; whether there will be any further advance will certainly depend much on the prospect of the next crop; but we shall not be at all surprised at the price getting still higher, for the following reasons:—1st. There is not the usual breadth of wheat sown this year by, it is supposed, about a fifth, the land being left for barley and oats, because these crops of late years have paid best. 2nd. Although the ricks standing about the country are numerous, yet it is certain there is not the quantity of wheat as many persons have expected, the yield out of the straw being so very bad. 3rd. The dearness and scarcity of potatoes and other vegetables cause a far greater consumption of wheat than usual, and the manufacturers being in constant employment at good wages, they have plenty of cash to purchase the same, and a great consumption seems likely to continue. 4th. The cold wet state of the land, and the backward

appearance of the plant, seem to forebode a late harvest, and a late harvest never produces a good quality, or scarcely ever a great quantity, and as the wheat is a great part of it thin on the ground, the prospect of the growing crop at the present time is far from favourable; these, and other reasons, will no doubt have some weight with the speculators, and help to change the minds of both buyers and sellers, and we shall not wonder that if even an attempt were to be made to release the foreign wheat from bond before the farmer can secure another crop, and especially if the harvest should be a backward one; but we do most sincerely hope that this will not be permitted to take place in the present distressing time, for to the poor farmer it would be a most cruel thing. We are aware there was a large stock of old wheat in hand after last harvest, but in consequence of the lowness of the price a vast deal has been given to pigs and sheep, and there is not a large quantity left to consume. It is to be hoped that the present advance in the market will not make the farmers forget their difficulties, or neglect to bring up their witnesses before the committee, so as to prove a good case, for it would be both absurd and foolish to ask for a hearing and then have nothing to say; and the Agricultural Committee, instead of proving a benefit, would be a laughing stock to the whole world. The farmers must not by any means leave a stone unturned, or the least shrink or relaxation in their exertions to prove a complete case, so that no eloquence or sophistry of their opponents can get over or set aside their statements.—March 7.

#### GLAMORGANSHIRE.

The weather has for the last month or six weeks been remarkably wet and changeable; cold rain and sleet in the low lands, and in the hilly districts, it generally came down in snow, which remained some time on the ground. Heavy showers of hail of unusual size we have also experienced, and a long succession of windy boisterous weather. Hitherto there is little prospect of any "March dust," and whatever benefits it may possess we shall not enjoy them this season. For all farming operation this weather has been most unpropitious; the land having been so much saturated with wet is unfit for ploughing, and this operation is very backward; at least two-thirds of the barley fallows are yet to be cross ploughed. The latter end of February and beginning of March being the lambing season in this county has proved this year most unfavourable, and a great many losses has taken place. Turnips being a deficient crop, the flocks generally are in low condition. The wheat continued to assume a good colour, although not thick until the middle of last month, but the repeated drenchings it has received, accompanied by cold cutting winds, has made it look bare, and the blade is withered. In wet and retentive soils, we suspect a portion of the plant is destroyed. The state of the land has prevented the crop from being yet hoed, which operation has only just been commenced. The young grass seeds are not a regular plant, and we cannot report favourably of the trifolium incarnatum. A great portion of the plants are destroyed, and those remaining are weak and withered. We suspect that September and October is rather late for sowing to secure a crop in all seasons.

Our spring fairs for live stock have produced better prices, with a good demand for cattle and sheep. Mutton is very scarce, and is worth 7d, and prime beef 6d per lb sinking the offal. Pigs have also improved in price; the quantity of pork in market has been less in the last winter by at least a third than

in the two preceding winters. Potatoes are worth 5s a sack, and good hay 3l a ton. The wheat market has improved since Christmas about 1s a bushel, and we expect will improve another 1s a bushel early in the summer, which will then be less than the cost of producing it. There may be the usual quantity on the straw at this season of the year, but it will be found that the breadth sown is greatly diminished, and should the season prove unfavourable a great deficiency may arise.

The parliamentary committees now sitting are not likely to recommend the adoption of any measures which will produce an immediate advance in the price of wheat, but we trust they will be able to suggest measures which may prevent a recurrence of the ruinous prices we have recently experienced, as well as a more equal distribution of those burdens which are now borne almost exclusively by the occupiers of land, and also that the English and Irish growers should be placed on a more equal footing in the same market.—March 17.

#### DURHAM.

The weather throughout the winter has been a series of perpetual transition from frost to thaw twice and thrice in twenty-four hours, with frequent intermediate storms of wind and rain, and seldom or never continuing the same for forty-eight hours. The effect has been severe, as may be supposed, upon the young wheat, which, from being put into the ground under inauspicious circumstances, was ill-calculated to bear hardship; when we say inauspicious, we assert that we never remember to have seen wheat podged, in so unhusbanlike a manner as last season. The great breadth of wheat is grown upon the poorest clayey soils which will grow nothing else, and this description of land is occupied principally by farmers of little capital, which capital of late years has been diminishing, and the land of course worse cultivated, and instead of the fallows getting fine ploughings and harrowings, and otherwise well cleaned, manure and lime applied, as it formerly did, three-fifths of this description of land only gets three ploughings, little harrowing, and no hand gathering, and as little manure and lime applied. What is to be expected from hand cultivated thus? The wheat sown upon such land in a wet season, when the furrow was running together after the plough, what is to be expected but deterioration, retrogradation, and bad crops? But to this there is this year added to the above a more powerful cause—an unfavourable winter and spring; never did we see wheat look so badly, there are thousands of acres on which a blade of corn cannot be discerned, and there are again, thousands of acres that are lying yet unsown, and which ought to have been sown in the autumn, but which now cannot possibly be sown.

Wheat has improved a little in price of late, but is still below par.

Fat cattle, owing to the very flourishing state of our manufactories in Lancashire and the West Riding, is in great demand, and at good prices, say beef from 5s 6d to 6s 6d per stone, and mutton from 6d to 7d per lb, sinking offal.

Wool is also in urgent demand at various prices.—March 18.

#### PERTHSHIRE.

Throughout the month of February the weather continued to exhibit frequent variations of frost, fresh, snow, sleet, rain, and high and boisterous winds. Towards the end of the month, the soil on the lower districts had become tolerably dry, and some spring wheat was got in on a dry bed; a few beans, too, were sown under favourable circum-

stances, but an early spring seed-time was prevented by a heavy fall of snow in the higher districts, and of rain in the southern and lower parts of the county on the first day of March, and from that time rain and sleet have been so frequent, as to have completely saturated the soil, which will for some time to come retard the progress of sowing spring seeds. Wheat was for the most part late in sowing last autumn, and the young and tender plants have suffered considerably by the alternating frosts and rains, since our last. The general appearance is at present by no means flattering. Clover plants stand out better. Turnips have been longer in running to flower stem than usual, they are now nearly off the ground. In the corn market prices are rather improving. Wheat has much room to rise, and in that article a considerable rise is anticipated. The season for the barley market is nearly over, and there is little on hand. Oats are much in request and are advancing in price. Potatoes bring higher prices than usual, but there are not many on hand. Fat cattle are rather scarce, and prices begin to look up. Milch cows are not yet much inquired after. Good first-rate horses improve in price, inferior descriptions are plenty, and low prices are offered.—March 7.

### GENERAL AGRICULTURAL REPORT FOR MARCH.

The weather, which we consider to be the most powerful ruler of agricultural operations and productions, and, for these reasons, generally make it the principal or leading theme of our report, was, from the commencement till 18th of the month, rather turbulent and sloppy, as well as detrimental, in many exposed situations, to the thatch of out-buildings, hay and corn stacks, and some few dwelling houses, consequently was not very favourable to ploughing, sowing, or any other kind of out-door farm labour; nor was it during that period more vegetative, if so much so, as that of February. As, however, the fine dry, and comparatively mild weather of that month enabled farmers to proceed with ploughing and sowing of oats, and other Lent grain, to a much greater extent than usual, field labour is at this time by no means out of its place; though, as was observed a few days ago, by a somewhat eccentric Sussex farmer, with whom we have had fully a forty years' acquaintance, that "March had been quite as windy and sloppy, and that I myself I, member of parliament for Birmingham, and they silly men who call themselves members of the centre" (we suppose central) "committee, have been talking as much nonsense about farming as need be!"

But, as further relates to vegetation, since the 18th, the subsequent mild night air, and almost summer-like sunny days have given to the growing wheat and all other growing crops; to early budding and blooming shrubs, fruit and forest trees, and in brief, the whole vegetable face of nature, a most lively, spring-like, animated, and otherwise inviting complexion. It has been a general remark with the farmers we have seen in the course of the present week, that they do not recollect to have witnessed so sudden and pleasing a change in the complexion of the rural scenery by which they are surrounded, and which they have in the course of their last week's travels passed, for some years. The poor land wheat crops are, however, represented as exhibiting a sickly appearance; but the flocks, herds, and every other description of live farm stock, as generally healthy, and though, in some instances, rather low in condition, doing, in

the whole, tolerably well, without the depastured part of it having laid very heavy hay stack contributions; yet, there are still almost general complaints of fat sheep and beasts not being so fat, consequently not weighing so heavy, or carrying so much internal fat as in the corresponding season of some past years. The lambing season of the Southdown flocks, which is, in most of them, from old to new Lady-tide, is said to have partially commenced, by flock-masters, who wish to become experimentalists about the middle of the month, and to have so far been productive of fine strong lambs.

As to the primary cause of the existing agricultural misery, there is no intelligent farmer fifty years old, at this time living, who does not know it was caused by the establishment and numerous increase of country banks. As early as the year 1797, these agricultural and commercial pestilences began to rapidly accommodate; and by the commencement of the present century had begun to purchase, or enable others to purchase, farms, or to greatly enlarge those they were already occupying by hiring those of small farmers over, as it is termed, their occupant's head. The enormous advance on the tithes has greatly contributed to agricultural distress, and for which no committee, or other legislative means, except as we intimated in our last month's report, an entire abolition, or very wholesome commutation, to which the bishops seem disposed unwillingly to submit, and mutual good feeling between landlord and tenant, can give relief. As, however, there seems to be a considerable number of landlords and tenants who seemed disposed to an equitable, amicable, or live-and-let-live system, we, with a view of endeavouring to promote their united interests, extract the following passages for their perusal, from the Rev. A. Dickson's Agriculture of the Ancients, who, speaking of Columellas' instructions to the Roman landlords, advises them "to retain upon their lands the same industrious farmers that have been bred upon them, declaring, upon the authority of L. Volusus, that that estate is most advantageous that is cultivated by them; men, with their education," he adds "naturally imbibe attachments; they acquire a love to the place where they were born and brought up, and they continue to honour a family which, from their infancy, they have been taught to admire. Tenants, therefore," he proceeds, "that have been brought up on the lands which they farm, must have an attachment to them, and a respect for the landlord. On these accounts," continues the Rev. Author, "they are certainly preferable to strangers; for, with their attachments, having no thoughts of being removed, they do justice both to the land and landlord; whereas, strangers, having no attachments, and expecting a removal, endeavour to make the most of both, and this they often have in their power, in spite of all restrictions. But, if rents are raised," he further adds, "till farmers are obliged to renounce all the enjoyments of life, it is certain that bad consequences must follow; the farmers become dispirited, agriculture declines, and the rent and value of lands fall."

Farmers signify that it appears to them, from the vacillating manner of Lord John Russell, that his Lordship scarcely knows what to be at; though we conceive that, if he pay proper attention to the precepts of Columella, contained in the foregoing extracts, and gives their equitable weight, in his political balance, he has exceedingly little to do.

Here follows our Smithfield retrospect, in reference to supplies, prices, &c., from the 26th of Feb. to the 21st of March inclusive. On the first Friday of the month, much inquiry was excited, by a two-

years old Herefordshire Bull, denominated Young Constitution, bred by Wm. Hewer, Esq., of North Leach, Gloucestershire; sketched, by Mr. Davis, of Church Street, Great Chelsea; and sent by Messrs. Gurrier and Giblett, salesmen of Smithfield, to a friend of theirs, in Aberdeenshire. The symmetry of the bull was remarkably fine, and his countenance as placid, mild, and tranquil, as that of the most mild complexioned, and otherwise beautiful, lamb! The circumstance of his going to Scotland, has given rise, in Smithfield, to the suppositions that crosses between him, and both the Fife and Aberdeenshire Scots, are contemplated.

SUPPLIES.

	Beasts.	Sheep.	Lambs.	Calves.	Pigs.
Feb. 26	320	2200	250	235	370
29	2576	19700	400	240	430
Mar. 4	300	2040	300	200	210
7	2395	15820	400	210	385
11	440	2300	200	250	580
14	2742	16150	500	240	410
18	420	2000	300	210	380
21	2857	14880	500	220	412
Total	12040	75170	2850	1805	3177

PRICES.

	Feb. 26.		March 21.	
	s. d.	s. d.	s. d.	s. d.
Inferior Beef	2 4	to 4 8	2 4	to 2 6
Ditto Mutton	2 8	to 3 0	3 2	to 3 6
Middling Beef	2 10	to 3 2	2 10	to 3 6
Ditto Mutton	3 6	to 3 10	4 2	to 4 8
Prime Beef	4 2	to 4 8	4 4	to 4 6
Ditto Mutton	4 6	to 5 0	5 2	to 5 8
Lamb	5 4	to 6 4	5 6	to 6 6
Veal	4 2	to 5 2	4 4	to 5 4
Pork	3 6	to 4 8	3 6	to 4 8

During the above-mentioned period, about 1080 of the beasts came from our northern districts, via., Lincolnshire, Leicestershire, Northamptonshire, &c, up the Great North, or St. Alban's road; about 1070 from our other northern districts; about 5750 from Norfolk, Suffolk, Essex, and Cambridgeshire, but principally from the former county; about 800 from the western and midland districts; about 690 from Scotland, by steam vessels; about 530 from Kent, Sussex, and Surrey; and the remainder from the stall-feeders, cow-keepers, &c., in the vicinity of London.

A full moiety of the above beasts—as is usual from the commencement of February to the coming into season of the grass fattened beasts—were chiefly Scots; the remainder, in about equal numbers of short-horns, Devons, Herefords, and Welsh runts, with, in the course of the month, about 300 Sussex beasts, 150 Townsend cows, and a few Irish beasts—the latter becoming scarce, and much out of favour.

The sheep and lambs, as we intimated in our last month's report, have come in irregular droves from all sides of London, but, if Norfolk be excepted, very few of them from our distant grazing districts. The sheep have chiefly consisted of New Leicesters, South Downs, Kents, Kentish half-breds, and polled Norfolk; with a few Old Leicesters, and Lincolns; horned Dorsets and Somersets; horned and polled Scotch and Welsh sheep, &c. The lambs have hitherto consisted of about equal numbers of South-Downs, New Leicesters, and Dorsets. The calves and porkers are chiefly from Middlesex, Essex and Surrey.

There has been, in the course of the month, a great deal of slaughtered meat, by sea, from Scot-

land, and several of our northern and western districts.

A statement and comparison of supplies and prices of fat stock, exhibited and sold in Smithfield market, on Monday, March the 23d 1835, and Monday, March 21st 1836.

At per 8lbs sinking the Offals.

	March, 23, 1835.		March, 21, 1836.	
	s. d.	s. d.	s. d.	s. d.
Coarse and inferior beasts	2 0	to 2 2	2 4	to 2 6
Second quality do	2 6	to 2 10	2 10	to 3 6
Prime large oxen	3 6	to 3 8	4 0	to 4 2
Prime Scots, &c.	3 10	to 4 0	4 4	to 4 6
Coarse and inferior sheep	2 2	to 2 4	3 2	to 3 6
Second quality do	2 8	to 3 0	4 2	to 4 8
Prime coarse-wooled sheep	3 6	to 3 8	5 2	to 5 4
Prime South Downs do	3 10	to 4 0	5 6	to 5 8
Lambs	5 4	to 6 2	5 6	to 6 6
Large coarse calves	3 6	to 4 8	4 4	to 4 10
Prime small do.	4 10	to 5 0	5 0	to 5 4
Large hogs	3 0	to 3 8	3 6	to 4 2
Neat small porkers	3 10	to 4 0	4 4	to 4 8
Suckling calves (each)	14 0	to 34 0	12 0	to 30 0
Quarter old store pigs (each)	10 0	to 14 0	10 0	to 14 0

SUPPLIES.

Beasts	2,488	2,857
Sheep and lambs	22,490	15,380
Calves	81	220
Pigs	510	412

It will be seen, by the foregoing statement, that mutton was from 1s to 1s 8d; beef, 4d to 6d; veal, 4d to 6d; lamb, 2d to 4d, and pork, 6d to 8d per 8lbs dearer, on the 21st of March 1836, than on the 23d of that month in 1835.

The following are the numbers of cattle exhibited, in Smithfield, in the course of the month, ending on the 21st instant.

Beasts.	Sheep.	Lambs.	Calves.	Pigs.
12,040	75,170	2,850	1,805	3,177

Supply of preceding month.	12,511	96,210	300	1,795	2,275
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From which it appears, the supply of the present month embraced 471 beasts, and 21,040 sheep less; 2,550 lambs, 10 calves, and 902 pigs more than that of last month.

As further relates to the value of farm produce, both in the metropolitan and provincial markets, the prices of each kind of meat, of most kinds of corn, wool, hay, straw, poultry, and dairy produce, have exceeded their preceding month's currency; but have been occasionally somewhat vacillating; whilst those of hops—though, at this time, a little drooping—have been, in the whole, with milch cows, store pigs, and horses, about stationary.

SPRING CLOTHING.—The advent of the month of April reminds us of the necessity of throwing aside our Winter habiliments, and donning, as they say in some places, lighter species of clothing. To those who are about to adopt that step, we strongly recommend a visit to Messrs. Doudney's "City Clothing Establishment," Lombard-street, whose immense stock enables them to render articles of the very first quality upon terms highly advantageous to the purchaser. (See our Advertising Sheet.)

WOODHOUSE'S ESSENCE OF GINGER.—The eminent patronage which this essence experiences, is in itself a recommendation far outweighing anything which we can say in its favor. We beg, however, to add our testimony in further proof of its invaluable qualities in all cases of indigestion, flatulency, or disordered state of the stomach. The price with a full description of the mode of use, &c. will be found in our advertising pages.

## AGRICULTURAL INTELLIGENCE, FAIRS, &c.

**DERBY CATTLE FAIR.**—There was a larger shew of cattle of different descriptions than has appeared for several years; very little was done however, except in those of prime quality; those sold, fetched a fair price, but not an extravagant one. Few good horses were exhibited; an excellent waggon colt sold for a great price.

**DERBY CHEESE FAIR.**—The supply of cheese was not so large as usual; prices ranged from 60s to 63s per cwt. A few superior dairies realized, for their latter make, three and four shillings more money. Prices rather declined at the latter end of the day, although nearly all was sold.

At **BISHOP'S CASTLE**, there was not the usual supply of bullocks, and they sold at high prices; fat cows 5½d to 6½d per lb.

At **ROSS** there was a small show of fat cattle, and the number of stores was also smaller than usual—the former sold from 6d to 6½d per lb; and the latter were in demand, and went at rather advanced prices. Fat sheep were in great request, and commanded from 7d to 7½d and 8d per lb.

At **LEOMINSTER** the supply of cattle was very good, both as to quality and numbers, and the sale brisk at about the same prices as at Ross. Sheep, pigs, and horses were in demand, and sold well.

At **GRANTHAM FAIR** there was a good supply of beasts of almost every description, and which appeared to sell very freely. The supply of sheep was moderate, and the sale brisk. The horse fair was, as usual, very small. Pigs were in demand, and fetched good prices.

**HORNCASTLE STOCK MART.**—Stock of all descriptions sold readily at an advance in price. More Sheep were penned this year than on any former Mart, and nearly every pen exchanged hands. There was also a considerable increase in the number of horned cattle, which were eagerly purchased at high prices. The show of horses was small and not much business done. Pigs sold well. This Mart, which has now been established six years, is the first Spring Stock Mart, and bids fair for being the largest in the county.

**NEWARK CARING FAIR.**—There was a better show of valuable horses than we have been accustomed to witness, particularly cart horses, which fetched high prices; meat beasts were from 7s to 8s per stone, stores fetched a good price; there was but a small quantity of sheep, but hogs of a superior kind was sold as high as 43s each; in fact, stock of all kinds seems to be advancing in price.

At **NORTHAMPTON FAIR** there was a good show of store beasts, the greater part of which were disposed of at an advance of 2l in 15l compared with the prices at this fair last year. A very indifferent show of fat beasts, which went off at about the prices given at our last fair. There were a few good milking beasts, which were sold at good prices. Good mutton, in the wool, fetched from 5s to 5s 4d per stone. There were few really good cart horses, but a great number of harness horses, in which there seemed a pretty brisk trade.

**COWBRIDGE FAIR** was considered by many respectable farmers a good one. Fat cattle sold 20 per cent. higher than they did this time last year. Wool being on the advance, keeps up the price of sheep, which were sold at this fair at 7d per lb., and oxen at 5d and 6d per lb. The cattle exhibited were fewer than usual.

At **WELLINGTON FAIR** there was a fine show of fat oxen which sold readily at 9s 6d to 10s per score. Lean stock were full 10 per cent dearer than it has been sold at the neighbouring fairs; fat sheep fetched 7d per lb in the wool; it was what the farmers term a selling fair.

**RETTFORD FAIR.**—The show of horned cattle was not large, but realized good prices—there were plenty

of buyers, and every person might have sold if they had felt so disposed. Fat stock were much inquired after, and realized 7s to 7s 6d, and in some instances 7s 9d per stone. Good drapes sold for from 11l to 14l per head, and lean stock from 8l to 13l each. Incalvers were not so well sold. The show of horses was not numerous, but both tolerably good ones and those of an indifferent kind were sold well. The quantity of sheep penned was small. Hogs fetched 50s to 55s per head, averaging in weight from 18lb to 13lb per qr.; ewes, from 38s to 44s each; fat ones fetched full 7d per lb. The show of pigs was meagre; store pigs, even small ones, were from 25s to 35s each, and sucklings were from 13s to 16s a piece. The cheese fair was but thinly supplied, and nearly the whole was quickly disposed of; old milk 46s to 57s; new 58s to 65s per cwt.

### MONTHLY REPORT OF THE WOOLLEN TRADE.

February is known in the Woollen Trade as a dull month; for once, however, it has proved the reverse, on the principle, we presume, that the exception establishes the rule. We think it would be difficult to name the corresponding month in any year, backwards to 1820, which approached to it, in the amount of business done in low woollens. In the halls and warehouses alike, goods of all colours, under 12s per yard, have been readily and even eagerly bought; and the stock of such goods is now, perhaps, smaller than at any time during the last eight or ten years. Of the destination of the goods sold in the finished state we can only speak with hesitation; since the rules by which we can form an opinion are, on the one hand—the known general character of the trade transacted by those houses, which have exhibited the greatest activity during the past month; and, on the other hand, the proportionate amount of purchases made by the buyers, who have visited the town from various markets at home and abroad. Perhaps we shall not be very wide of the truth, if we say that the larger proportion has been bought by London houses, much of which may be intended for the foreign trade, but the great bulk, doubtless, for the home market. No inconsiderable quantity of goods has been shipped to the United States; and, we believe, looking to the character of the shippers, as *bona fide* sales; or, if on consignment, not that particular mode of consignment which renders all prudent calculation of the relative proportion of supply and demand, almost impossible; and which deprives the consignee and owner of all control over the selling price; we allude to the ruinous system of consignment on advances. To other foreign markets less than the usual amount of goods has been sent.

In the fine qualities of woollen cloths, the trade of February has exhibited less activity. In this respect, the past month assimilates to the two or three immediately preceding; in all of which fine cloths were dull and very heavy of sale, and, we are decidedly convinced, unusually so. We are somewhat at a loss to account for this fact. It is true these qualities are principally needed in the spring months; and that it is yet too early for the wholesale houses to lay in stocks; but, admitting this, we cannot but think that the very evident shyness of the buyers with reference to fine woollens, indicates one or both of two things—either that there has been a smaller demand than usual during the last four months for such qualities, or that the stocks in the manufacturers' and merchants' hands are believed to be so considerable, that no great variation of price, or scarcity of particular kinds, need be apprehended, even should the spring demand be a full one. Certain

it is, whether the one or the other be the true hypothesis, or both in part true, there has been no anxiety to purchase fine woollens, at all approximating to that manifested in the inquiry for the lower kinds.

Such being the state of the woollen trade during February, an advance on the lower qualities of wool was unavoidable. The precise amount of that advance is very differently estimated; suffice it, that it is quite enough to render the position of the manufacturer and the merchant both difficult and hazardous. In our estimation indeed, there has not been a crisis in the trade, since the conclusion of the autumn of 1833, (and there have been many very puzzling conjunctures in that brief period) of more perplexing character or more difficult solution, nor one which involved more important consequences, than we apprehend will arise from the evolution of this. We shall brave the imputation of presumption, in offering our view of the facts of the case, and in suggesting one or two plain rules of conduct, for the calm consideration of the trade.

First, as to the facts of the case—its diagnosis, as our medical friends would say. In few words they are these:—all descriptions of low woollen cloths, whether in the balk or finished state, are scarce. Similar qualities in preparation cannot be laid in at the same price, as those now selling. Wool, of a quality suitable to manufacture such cloths, is deficient in quantity to meet the demand for the remaining months of the wool year. Second, as to the conduct to be pursued. It is clear that the price of wool must advance, and there are two principal parties interested in that advance—the holders of wool, and the consumers; understanding by the latter designation, specially in this instance, the manufacturer and the merchant. We offer no advice to the former—they will get what they can; to the latter it is a grave question how much they may give without producing reaction and stagnation. It is a rule now universally understood and admitted, that the price of a particular article is regulated by the degree of the demand for it. It is equally well understood that there is a point in the price beyond which a rise checks consumption, and leads to a sure and frequently rapid retrogression. The history of the wool and woollen trade since 1833, strikingly illustrates these two positions. The price of the raw material in 1834, as compared with the average of 1827 to 1830, may be roundly stated at 45 per cent. higher; and when after a ruinous struggle it fell at the conclusion of 1834, it still maintained, and has done since, an advance of not less than 30 per cent. At the latter advance, wool more than remunerates the grower; it is therefore evident that price may be sustained considerably above the point of remuneration, by an intense demand. The demand is *now intense*, and is becoming more so. The price will rise in consequence. Can it be sustained at the advance? or will it recede as

in 1834? These two questions resolve themselves into a very plain one;—will the advance check consumption? This question cannot be answered by a mere reference to former exigencies of a similar kind. It does not follow, that because wool fell in 1834, it will do so in June next, if in the mean time it should rise to the highest limit of that year. The demand may be greater now than during 1834—it may be growing in June next; the supply may at present be under some special circumstances of limitation. It is not our intention to obtrude a detailed statement of our views, either as to one or the other of these two great points of the case, nor yet (admitting that we have formed one) a definite answer to our own queries. Why then put them? Our reasons are simple, and we think sufficient. To put the case fully before those interested—to direct and limit inquiry specially to those facts of the case which have the same relation to a question of price, that the force of gravitation and the resistance of friction have to a question of practical mechanics. We have another reason for putting our queries. We wish to impress very strongly on the minds of the manufacturers, a corollary from the principle that the relative proportions of supply and demand regulate price, viz. *that as a rise of price is equal to a contraction of the demand, the production of goods ought to diminish in the ratio of the advance of price—if the rate of profit is to be kept up.* We shall not illustrate this corollary at length; to us it appears sufficiently clear and simple—but we will apply it. Wool is rising in price, and it will rise still higher before the clip. Goods must rise with it; but the rise of goods will meet with no inconsiderable resistance, and in all probability will fall short of the rise of the cost. If wool rises in price at the German fairs, as compared with 1835, the stocks of goods then on hand will produce a profit; if not, they will entail a loss on the holders. A rise of wool at the clip is so much a question of probability, a mere problem in the doctrine of chances—that it will be extremely unsafe to speculate on it; it is therefore incumbent on the manufacturers to diminish the production of woollens as the price of the raw material advances. By so doing they will preserve that equality of proportion betwixt the demand and the supply which ensures a profit; and will avoid any undue excess of stock on which to lose, should wool only realise at the clip the prices of last year. There are certain latitudes in which skilful seamen careful and scrupulously sail under close reefs; our good friends the manufacturers may be assured they are sailing in such a latitude; and the sooner they take in their spare canvass and make all snug, the better. They may else be taken aback, or carry the masts overboard, ere they have time to hand the sails, or “to pipe all hands on deck.”

Leeds, March 1.

## REVIEW OF THE CORN TRADE DURING THE MONTH OF MARCH.

The present and consequent effects of the weather have during the month of March occupied much of the interest and attention of the farmer. The cold weather previously experienced, had checked the growth of winter-sown corn, and the aspect of the wheats was far from flattering, the plant looking thin and stunted, and in many instances deprived of that rich and healthy green, the certain index of vigorous growth; rain having likewise set in, little progress was made in sowing for the first fortnight, and prospects generally were much less animating than had been accustomed to be witnessed for the four or five last seasons; a sudden change, however, was experienced, and which appeared to have an almost magic influence on vegetation, and a considerable breadth of Lent corn has been deposited in the

earth; the land for the most part being in excellent condition to receive the seed, and facilitate its early germination. The advanced prices of wheat have been fully maintained, and barley has also improved in value: thus far the present condition of the agriculturist affords a favourable view; but as regards their ultimate condition *radically speaking*, their *political* friends have not been yet enabled much to brighten their prospects. The currency remains unaltered, the barrier, amongst certain empirics, against all improvement, and even the late enhancement in the quotations, is attributed by these *worthies* to a trifling increased circulation on the part of some of the joint-stock banks. The examination of witnesses is proceeding before the committees of the Houses of Lords and Commons, and no doubt a mass



of evidence is being collected, which will be of more interest as a subject of reference and information, than conducive to any practical and beneficial result. The commutation of tithes still remains under the consideration of parliament; the principal clauses of the bill have excited a general feeling of dissatisfaction on the part of the landed proprietors, and several deputations have had conferences with Lord John Russell, representing the injustice of the measure. The objections, which are well founded, may be briefly stated to arise principally from that fact, and not based on any cavilling or factious opposition.

Tithe, as at present constituted, depends on the seasons, and on the capital and industry of the cultivator, and adapts itself in a measure to current circumstances; it is now proposed to commute this to a perpetual rent-charge on the estate, estimated on an average of the last seven years' gross produce of the soil, but deducting 25 per cent from the customary demand of the tithe-owner. The injustice of this proposition may be readily exemplified in the case of 1000 acres of land, of the same character and properties, cultivated in equal proportions by two individuals. One farmer possesses capital, practical knowledge, and personal industry, and brings forth the powers of the land in yielding a fertile produce; the other lays down his land in pasturage, or has little capital, and is negligent of his interest, and though he keeps the ground arable yet his crops are scanty and inferior, and do not realize within half or two-fifths of those of his more diligent neighbour, whose 500 acres are to be burthened for ever with a tax, originating entirely from his own money and labour, and double in amount to the charge levied on the other moiety of the ground;—“*this is too bad.*” The tithe ought justly to fluctuate with the annual value of corn; or at all events to be charged on the gross rent of the land, as it is almost impossible to ascertain the intrinsic value of the soil, which next to corn tithes is the most equitable mode of adjusting this complicated measure: the clauses regarding hop plantations, garden grounds, &c., are liable likewise to much objection;—in fact the clauses of this bill appear to have been framed without a due regard, or with a very superficial knowledge of their operation in detail, and reflect little credit on the parties engaged in drawing up the bill, who, either from actual, or wilful ignorance, would have sacrificed the agricultural, in favour of the ecclesiastical interests. The deduction of 25 per cent. from the usual demand of tithes is purely nominal, and will not affect the clergy, who have been accustomed to this outlay, and even more, in the expenses attendant on the collection of their tithes, and therefore the present bill would secure to them in perpetuity the full extent, and in some instances an increase of their previous income; a measure, one would have imagined, not contemplated by the present ministry; but the truth of which may be illustrated by the fact that not a single petition has been presented on the part of the church against the measure: strong presumptive evidence that there is no just cause of complaint, on the part of the receivers of tithes, however it may militate against the payers.

The supplies of wheat at the port of London during the past month have exceeded those of February by a few hundred quarters, but as speculation in favour of the article again revived towards the close of March, the advanced currencies previously noticed have been further enhanced 1s to 2s per qr. The inclemency of the weather and retarded state of vegetation, has had the effect of exciting an increased

speculative feeling, which at the beginning of the month had become languid. During the first ten days prices receded 2s to 3s per qr, the millers having become the only purchasers, and speculators being unwilling to follow up the advanced quotations; but about the middle of the month the receipt of orders from Ireland, Liverpool, the north and west of England, as well as Scotland, had the effect of encouraging holders to demand higher terms, and which in many instances were acceded to, as the granaried parcels were withdrawn from the market, and the supplies proved inadequate to meet the demand, the general currencies in consequence, towards the close of the month, were rendered 1s to 2s per qr higher than at the similar period of February. The prices also at many of the shipping ports on the eastern coast, maintained fully their top quotations, owing to the transmission of orders from some of the districts for which purchases were being made in the London market, and which communicated a firmness to the prevailing prices in Mark Lane, not likely at present to be shaken, unless a succession of large arrivals should come to land; the advance in the price of wheat from the lowest point of the past year, has however, been considerable; the minimum quotations during 1835 were, the weeks ending the 7th, 14th, and 21st of September, when the top currencies noted were 37s to 38s for Essex, Kent, and Suffolk red wheat, and 42s to 44s for white, and last week for prime red wheat from the same counties, 46s to 48s was obtained, and for white, 52s, 54s, to 56s, and even 57s for extra fine qualities; exhibiting an improvement of 10s per qr on red wheat, and 10s to 12s on white.

At the close of February and commencement of the past month, several orders were transmitted abroad, principally to Danzig, with the view, it is to be imagined, of holding the wheat in granary on the spot, the charges being so much lower, and either realizing a profit by the resale in loco, by those speculators who were early in the market, or as the stocks of the better qualities of bonded wheat are much reduced in England, to be enabled to replace them, on the approach of any demand for the home consumption, as the foreign prices, ruling extremely low, are liable to be materially influenced by the continued advances of our markets, which to foreigners, who have not the advantage of intimate local information, may hold forth the probability of reaction taking place to a greater extent than is at present likely to be experienced. Throughout the month the article has continued to attract attention; at first the inquiries were entirely actuated by the intention of shipment either to the United States of America or New South Wales; but of late some speculative feeling is being directed towards the finer qualities of Danzig, and selected parcels of Lower Baltic red wheats, with the view of retaining them. Prices have, in consequence, advanced 2s to 3s per qr; fine high-mixed Danzig being held at 32s to 35s; Baltic red at 28s; and for inferior sorts 24s to 26s being paid. The exports during the month have been about 2,700 qrs to Sydney, 1,000 qrs to Van Diemen's Land, 400 qrs to Halifax, 1,000 qrs to St. John's, New Brunswick, 2,900 qrs to Quebec, 1,210 qrs to Baltimore, 850 qrs to New York, and 500 qrs to the Mauritius.

The receipts of flour have been 2,695 sacks less than during February. The trade during the first fortnight of March ruled dull, and the top quotations of Town-made qualities were almost nominal; as many of the bakers having been in stock, the demand from the millers was consequently more limited, more particularly as they were reluctant to

comply with the advanced quotations; but, on the other hand, ship qualities were not likely to experience much depression in value, as the prices in London and the neighbouring eastern markets have been lower this season than in the northern and western parts of the country, and as the consumption is carried on in such an extended ratio, owing to the activity prevailing in the manufacturing districts, an accumulation of stock in the millers' hands was not likely to occur; besides Town millers, in some instances, have found it cheaper to purchase ship flour, than manufacture the article themselves. Bonded flour has been in constant demand, but the limited arrivals from abroad and short stocks on hand preventing any extent of business from being transacted, prices have remained firm, and the principal exports, exclusive of some hundred cwts to the West Indies, have comprised about 700 cwts to Van Diemen's Land, 2,000 cwts to Pernambuco, and 800 cwts to the Mauritius.

The advance in the price of wheat throughout England has materially affected the averages, and the duty on wheat has, in consequence, declined 4s per qr, being now 4s 8d. The duties also have receded 1s 6d per qr on Barley, a similar amount on oats and beans, and 4s 6d on rye, peas remaining stationary.

The supplies of barley have been limited, and nearly 10,000 qrs less than the arrivals during February. The demand on the part of distillers, as well as for grinding qualities has been free, and prices have advanced fully 2s per qr. Irish samples participating in the improvement. Malting descriptions have moved more slowly off hand, and though the rates must be noted 1s to 2s higher, yet the trade on the part of Malsters has evinced little animation; fine Chevalier for seed has been in request, and obtained as high as 40s per qr. A considerable diminution has been made in the stock of bonded barley, which at the beginning of March amounted only to 9,801 qrs, since then 1,700 qrs have been entered for export to Oporto, 700 qrs to Lisbon, 500 qrs to Quebec, 210 qrs to New York, and 2,500 qrs to Philadelphia; the general prices paid have been, 13s 6d to 15s per qr. as in quality.

The malt trade in the early part of the month was extremely heavy, and even the best descriptions were with difficulty disposed of, unless at a reduction in price, but the improvement in barley communicated a similar result to malt, and the best samples are fully 1s per qr dearer.

The importations of oats at the close of February, were nearly 30,000 qrs less than during January; in the course of March the receipts have been upwards of 7,000 qrs less than February; and comparing the arrivals of the present season since harvest, with those in 1834-35, there appears a diminution this year altogether of more than 200,000 qrs. The trade has been generally languid, and though the show of samples has continued limited, yet prices have receded, English qualities being fully 6d per qr. lower, and Irish and Scotch, 6d to 1s; and the rates even at this decline have been with difficulty supported, which is in some degree caused by several of the larger consumers having entered into contracts for future delivery, and their wants being covered, they are kept entirely off the market. When, however, the arrivals do increase, it is to be anticipated that they will rather cause an influx of purchasers than influence a further depression in the currencies, as all the buyers who have now so long held back must be bare of stock. In Ireland, though the stocks are unusually large for the season of the year, and in

some instances three-fifths more than held at a similar period of 1835, the Irish markets are scantily supplied, and prices have in consequence further advanced, the accommodation afforded to the smaller farmer by the Agricultural Banks, enabling the farmers still to withhold their grain from market, until they can, it may be supposed, form some estimation as to the probable return of the new crops. Several free-on-board sales have been effected. Oats on the north-west Coast, weighing 41lbs., have obtained 11s 3d to 11s 6d per barrel; at Limerick, 12s; Waterford, 11s 6d to 12s; Wexford, fine, 12s to 12s 4d; Derry, 11s 6d to 12s; in Galway 9s 7d has been paid for unprepared qualities, equal to 10s 6d prepared, without commission. Several small parcels of bonded oats have been exported to the West Indies, besides about 1,000 qrs to Sydney, 1,200 qrs to New York, 500 qrs to Baltimore, and 1,600 qrs to Boston; stale Russian have been sold as low as 9s, but Danish, Swedish, &c., in good condition, have obtained 11s to 12s, and Friesland 12s to 14s, fine brew being worth 15s.

The sale of beans has been rather heavy, and prices have receded about 1s per qr, but the article became firm at this decline towards the close of the month.

The demand for white peas has much increased, in consequence of the article being taken for the feeding of lambs, and prices of the best descriptions have advanced 3s to 4s per qr, and the stocks extremely limited. Grey and maple have also improved 1s per qr.

During the month of March the following quantities of grain and flour have arrived in the port of London:—

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats. qrs.
English .....	28,301	26,528	24,199	16,109
Scotch .....	74	985	454	8,220
Irish .....	...	...	...	24,825
Total in March	28,375	27,513	24,674	49,154
Total in Feb...	27,564	37,428	23,616	56,597
Total in Jan...	32,183	44,949	33,792	86,142
Foreign in Mar. ...	...	...	...	500
	Beans. qrs.	Peas. qrs.	Linseed. qrs.	Flour. sacks.
English .....	5,300	2,938	261	27,461
Scotch .....	18	7	...	210
Irish .....	...	...	...	36
Total in March	5,318	2,945	261	27,707
Total in Feb. .	8,679	3,889	39	30,412
Total in Jan...	8,514	6,584	16	35,507
Foreign in Mar. ...	...	5	2,552	brls. 530

In France the prices of wheat remain extremely firm, particularly of the finer descriptions, as the millers are complaining of the quality and weight of many of the stacked wheats, a circumstance, which is attributed to the want of straw at the commencement of the harvest to thatch the ricks, by which means the grain became exposed to the rains which set in the early part of September; prices also of rye and oats are steady. Wheat continues to meet demand for shipment to the southern ports, where the currencies, comparatively, are ranging high; at Marseille, wheats from Normandy are realising 4s to 4s 3s; lower Loire qualities 4s 6s to 4s 8s; at Lyon 3s 8s 2d to 4s 1s 7d; at Toulouse, the best descriptions obtain 4s 3s 10d to 4s 7s; at Bordeaux, 4s 5d to 4s 6s, and at Paris the range of quotations is from 2s 8d to 3s 6s; and though the unfavourable reports respecting the crops, appear to have been

premature, the rains having proved beneficial in softening the ground, and in invigorating, and giving new life to the plants, yet should it ultimately turn out, that they had sustained any material injury from the severity of the cold, a considerable rise in the markets must ensue, as the exhaustion of the stocks in some departments requiring extensive supplies from others, is having the effect of more than equalizing the surplus quantities in more favoured districts, and causing generally the supply to become limited, requisite to meet the current demand. The wet is impeding the sowing of summer grain, and the next harvest is therefore likely to be protracted. The rape plant is reported to have suffered serious injury from the alternate thaws and frosts, and in some places the plant has in consequence totally failed. Linseed has also been injured from similar causes. At Marseille bonded wheats were more inquired after, and higher prices realized, it being rumoured that the foreign wheat in store was about to be freighted in French vessels to the more northern departments, where the duties, owing to the high range of averages, were much lower, say three francs, 37 centimes per hectolitre, and would be there entered for the consumption, as the duties in France, though operated upon by the averages as in England, vary in their amount, according to the range of certain specified departments, the kingdom being divided into four classes, and the duties of each class being regulated by a different maximum price.

In the Italian and Mediterranean markets little variation had been experienced in the demand or currencies: at Naples reports were circulated that the appearance of the crops of wheat in Puglia were unfavourable, and Barletta wheat on delivery was held at 22s. 4d per qr. The Neapolitan government had also remonstrated with France on the late legislative enactment, prohibiting the manufacture of bonded Barletta wheat into flour for export to the colonies. At Leghorn the business had been rather extensive in wheat, for the consumptive demand; white Tuscan qualities being noted at 45s 2d, and red at 39s 6d; Odessa 28s 3d to 32s. Roman beans 26s 6d; New Egyptian 20s 7d per qr. At Trieste the demand for grain being confined to the local wants, prices had sustained little variation, Italian, Banato, and Odessa wheat being quoted at 25s 7d to 30s 10d.

In the Black Sea prices of wheat have improved; and at Odessa, wheat was held at 20s 4d to 24s 3d, for the finest samples of hard; but for delivery in May and June, when the supplies from the interior would be coming to hand, the article could be obtained at 18s 6d with all the money advanced.

From New South Wales the advices at the commencement of the month continued unfavourable, from the causes specified in our last review, and prices still advanced, quotations being noted at 14s to 16s per bushel, and extra fine as high as 20s, and flour 42s per 100lbs: these tempting prices induced speculators in this country to persevere in their shipments, not bearing in mind that the consumptive demand of Sydney and neighbourhood was comparatively limited, and that the shipments already effected from this country would in all probability force the prices to a much lower range, exclusive of the wheat and flour which would be shipped from the East Indies and other ports, the voyage from whence was considerably shorter than from England. At the close of the month advices have been received dated the 14th November, which, as we anticipated, note a material decline in the currencies, occasioned by rains, supplies, and holders

bringing forward part of their stocks. Wheat was not realizing more than 6s to 9s per bushel, and very superior in small quantities, 9s 6d, but oats were still ranging high, say 5s 6d to 6s per bushel. In Van Diemen's Land wheat was held at 8s to 9s per bushel; flour, 27s to 30s per 100lbs; oats, 4s 3d to 4s 6d per bushel.

In Canada little alteration has occurred in either price or demand of wheat and flour; the former article was firm at 5s to 5s 6d per minot for lower Canada red; inferior 3s 2d; superfine flour, 32s 6d; fine 30s per barrel.

The grain and flour market in the United States of America, has experienced a further improvement in price; at New York, the best brands of Western Canal were held at 35s 6d per barrel, being fully 1s 6d per barrel dearer than our last report. Several arrivals of wheat had arrived from England, and a few from Holland, and by the last advices, dated the 2d of March, there were about 35,000 bushels of European wheat afloat; but the severity of the weather had been so intense, that the usual communication with the mills in the vicinity was interrupted, and no sales had been reported; the last quotation given was that of Western wheat at 45s 10d to 47s 8d. About 4,000 bushels of barley had been received from London, which remained unsold. Rye on delivery was selling at 36s 8d. Ryemeal scarce at 24s 9d per barrel. At Philadelphia some supplies of European wheat had been received and obtained remunerating prices. Samples of native growth were in very short supply, and had obtained 55s. At Baltimore wheat was firm, and the top quotation 53s 2d. Howard Street flour 30s 11d. Cloverseed generally dull, and declining in value at all the leading markets.

The quotations of Linseed in the Russian markets remain unaltered, and as the prices of Kubanka and Courland Wheat range too high to attract any speculative attention in England, the grain trade at present in this part of the world possesses little interest; Kubanka quality is noted at 31s 4d to 32s 8d, and Courland at 28s per qr. At Riga, Linseed had been in request, and best crushing qualities realized 42s 4d, but the demand had abated; middling descriptions had obtained 39s 11d to 40s 1d. At St. Petersburg, Morschansky samples deliverable in July and August, had brought 42s 9d, and a few parcels on hand in granary as high 47s 4d; good machined seed was offering at 40s 5d, and some had been purchased at 40s 1d. At Danzig the improvement in the English Wheat trade had communicated some degree of animation and spirit to the market, and holders were demanding 32s, 33s, 34s, and even 35s per qr. for the top qualities, which are comparatively very scarce. Purchasers, however, have refrained from acceding to these terms, even for limited parcels, fearful by these means to establish a high range of currency; the highest price paid was 31s to 32s for a few hundred quarters of fine, though 27s to 29s has been given for good and high mixed samples.

In Mecklenburg, prices of Wheat have advanced, and best samples not to be obtained under 23s to 24s per qr. at Rostock, owing to the demand for shipment principally to England, Jersey, &c. In Holstein nearly the same rates were being obtained, owing to the improved currencies in England and shipments to the United States. At Copenhagen, holders of wheat were firm at 22s 6d. The trade at Hamburg for the finer qualities of Upper Elbe wheat was steady, purchases being made for the consumption, for grinding and for export to America, Portugal, &c.; but the inferior qualities were difficult of

disposal. Marks, Magdeburg, and Saale wheats sold at 23s 3d to 25s. Beans dull, and in peas little doing. Rapeseed was held at 31l 10s to 32l per last.

**CURRENCY PER IMPERIAL MEASURE.**

	BRITISH.		MARCH 1.		APRIL 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk	38	46	39	48		
White	42	52	42	54		
Norfolk, Lincolnshire and Yorkshire	37	44	37	46		
White, do. do.	40	49	40	52		
West Country Red	36	42	36	44		
White, ditto	33	47	33	50		
Northumberland and Berwickshire Red	35	40	35	42		
White, ditto	36	45	37	48		
Irish Red	—	—	—	—		
Ditto White	—	—	—	—		
Barley, Malting, new	29	33	31	34		
Chevalier, new	32	34	34	37		
Distilling	24	27	26	30		
Grinding	21	26	24	28		
Irish	21	24	21	27		
Malt, Brown	40	48	40	49		
Ditto, Chevalier	58	60	58	61		
Ditto, Norfolk and Suffolk Pale	46	53	46	56		
Ditto Ware	58	60	58	61		
Peas, Hog and Grey	28	31	30	32		
Maple	30	32	31	33		
White Boilers	32	37	34	41		
Beans, small	35	43	34	42		
Harrow	30	41	30	40		
Ticks	29	40	29	39		
Mazagan	30	32	30	32		
Oats, ENGLISH feed.	18	23	18	22s 6d		
Short small	21	25	21	24s 6d		
Poland	21	26	21	25s 6d		
Scotch, Common	18	26	18	25		
Berwick, &c.	21	28	21	28		
Potatoc, &c.	21	29	21	29		
Irish, Feed	16s 6d to 19s 6d		16s 0d to 19s 0d			
Ditto Potatoc	19s 6d 23s 0d		19s 6d 22s 6d			
Ditto Black	16s 6d 20s 6d		16s 6d 20s 0d			

**PRICES OF FLOUR,**

Per Sack of 280 lbs. MARCH 1. APRIL 1.

	MARCH 1.		APRIL 1.	
	s.	s.	s.	s.
Town-made	36	42	36	42
Norfolk, Suffolk, Kent, and Essex	30	34	30	34
Sussex and Hampshire	29	33	29	33
Superfine	34	—	34	—
Lincolnshire, Yorkshire, and Stockton	29	32	29	32
Northumberland, Berwick, and Scotch	29	32	29	32
Irish	29	32	29	32
Extra	—	—	—	—

**IMPERIAL AVERAGES.**

Weekending	Wheat	Barley	Oats	Rye	Beans	Peas
	12th Feb.	39 7	29 0	19 8	27 6	34 7
19th "	40 7	28 11	20 3	27 4	34 2	34 0
26th "	42 6	29 0	21 2	28 0	34 9	34 1
4th March	44 7	29 4	21 2	28 1	34 10	33 5
11th "	45 0	29 4	21 5	28 3	35 5	33 11
18th "	44 2	29 8	21 2	28 0	34 7	33 11
Aggregate Average of the six weeks which regulates the duty	42 9	29 3	20 10	29 1	34 9	33 9
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London	44 8	18 4	16 9	25 9	18 3	19 9
Do, on grain from British possessions out of Europe	5 0	2 6	2 6	3 0	3 0	3 0
Foreign Flour, 28s 8d per 196lbs. British Possessions do. 3s per 196 lbs.						

**STOCK OF GRAIN AND CLOVERSEED IN BOND IN THE PORT OF LONDON ON THE 5TH MARCH.**

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Cloversd.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
229,872	9,801	74,130	1,147	3,659	38,837	35,613

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th March, 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat. bush.	Barley. qrs.	Oats. qrs.	Rye. qrs.
Quantity imported	7	..	..	..
Do. entered for home consumption	1,277	..	24	..
Do. remaining in warehouse	579,215	47,217	228,714	1,484
	Peas. qrs.	Beans. qrs.	Maize. qrs.	Flour. cwts.
Quantity imported	44	408	2	3,204
Do. entered for consumption	4	2	37	3,088
Do. remaining in warehouse	7,884	3,894	822	213,824

**BOROUGH AND SPITALFIELDS MARKETS.**

	MARCH 1.		APRIL 1.	
	£ s.	£ s.	£ s.	£ s.
Ware, Scotch reds	4 0	4 10	4 0	4 10
Marsh Champions	3 10	4 0	3 10	4 0
Common reds	3 10	4 0	3 10	4 0
London whites	3 5	3 15	3 5	3 15
Shaws	3 5	3 10	3 5	3 10
Middlings, Scotch reds	3 10	3 15	3 10	3 15
Marsh Champions	2 15	3 5	2 15	3 3
Common reds	2 15	3 5	2 15	3 3
London whites	2 5	3 0	2 5	3 0
Shaws	1 15	2 5	1 15	2 5

**PRICES OF HOPS IN THE BOROUGH.**

	MARCH 1.		APRIL 1.	
	£ s.	£ s.	£ s.	£ s.
East Kent Pockets	5 15	7 5	5 15	7 0
Mid-Kent Pockets	4 10	5 5	4 10	5 5
Weald of Kent Pockets	0 0	0 0	0 0	0 0
Sussex Pockets	3 15	4 12	3 10	4 0
Yearlings, Bags	0 0	0 0	3 15	4 10
Old Olds	0 0	0 0	0 0	0 0

**WOOL MARKETS.**

**BRITISH.**

	MARCH 1.		APRIL 1.	
	s. d.	s. d.	s. d.	s. d.
Down Tegs	1 8	1 9	1 10	1 11
Half-bred do.	1 9	1 10	1 10	1 11
Ewes and Wethers	1 4	1 5	1 8	1 9
Leicester Hogs	1 6	1 7	1 4	1 5
Do. Wethers	1 2	1 3	1 6	1 7
Blanket Wool	0 8	1 3	1 0	1 6
Flannel	1 3	1 6	1 3	1 9
Skin Combing	1 1	1 3	1 4	1 6

**SCOTCH.**

Per Stone of 24 lbs.

	MARCH 1.		APRIL 1.	
	s. d.	s. d.	s. d.	s. d.
Laid Highland Wool, from	12	0 to 12 6	12	6 to 13 0
White Do. Do.	none.		15	6 to 16 0
Laid Crossed Do.	15	6 to 16 6	15	6 to 16 6
Washed Do. Do.	16	6 to 17 6	17	0 to 18 0
Laid Cheviots	18	6 to 20 6	19	0 to 21 0
Washed Do.	24	0 to 26 6	24	0 to 26 0
White Do.	30	0 to 32 6	30	0 to 32 0

**FOREIGN.**

APRIL 1.

Electoral Saxony Wool, from 4s 6d to 5s 8d; first Austrian, Bohemian, and other German Wools, 4s to 4s 6d; second do, 2s 6d to 3s 9d; inferior do, in locks and pieces, 2s 2d to 2s 6d; do lamb's do, 3s to 4s; Hungarian sheep's do, 2s 4d to 2s 8d; Leonese sheep's do, 2s 6d to 4s 6d; Segovia do, 2s 8d to 3s 4d; Soria do, 2s 4d to 3s 2d; Cacaris do, 2s 2d to 2s 8d; Spanish lamb's wool, 1s 6d to 3s; German and Spanish cross do, 1s 10d to 3s 2d; Portugal sheep's do, 1s 6d to 2s 6d; do lamb's do, 1s 4d to 2s 6d; Australian, fine crossed do, 2s 10d to 4s 10d; do native sheep's do, 1s 8d to 2s 8d; and Van Diemen's Land, native sheep's do, 1s 8d to 3s per lb.

# THE POLITICAL COMPANION

TO

## THE FARMER'S MAGAZINE.

[Our object in appending a Political Companion to the Farmer's Magazine, was to put our readers in possession of the opinions of the most talented journalists of the day, on both sides of any important question which might come under discussion. We trust, therefore, that in giving insertion to articles, which seem opposed to the agricultural interest, we shall not be considered as acquiescing in the doctrines therein advanced, our sole purpose being to enable our readers to estimate the truth or detect the fallacies of the arguments advanced.—ED. FARMER'S MAGAZINE.]

### TITHE COMMUTATION BILL.

(From the Morning Chronicle.)

Although we remain sensible of the necessity of effecting a permanent commutation of tithes, we have with reluctance arrived at the conclusion that the compulsory clauses of Lord John Russell's bill cannot be brought into operation in their present shape, without great injustice to the owners and occupiers of land, and great mischief, direct and indirect, to the community.

Under the bill, tithes are to be commuted for a perpetual rent-charge, secured by powers of distress and entry and perception of profits (of which a word by-and-by,) and the principle of the compulsory clauses is, that the amount of the rent-charge which is to be paid henceforth and for ever on each particular farm or field, is to be determined by the net value of the land—not even by its capability, if it may be so termed, of yielding gross produce—not even by the actual gross produce during any long period of time; but by the amount of the gross produce which, during the short period of seven years, in pasture or in tillage cultivation, under good husbandry or bad husbandry, great expenditure or little expenditure, and all the accidents of cultivation or cropping the land to be charged may have happened to yield; and the tithe-owner may compel a rent to be so fixed on any land he may choose.

If a landlord, therefore, during the last seven years, happens to have been cursed with a good tenant (for a curse the bill makes him,) or if, being himself an occupier, he has been afflicted with industry and capital, or, still more, with the mania of improvement, his gross produce will have been high in proportion to the gross produce of his neighbour's farm. He may not, it is true, have received profit in proportion to his expenditure or to his gross returns; but this accident, to which many ingenious cultivators are liable, will not excuse him. The parson is to be invited to pounce on him, and our improver and his heirs are to be punished in perpetuity for the offence of having grown two ears of corn where one grew before. He is to be made subject to a perpetual rent-charge, higher than his indolent neighbour's, nicely adjusted in proportion to the superior productiveness of his farming.

A penal rent, an increased or new rent to be payable on account of specified acts of waste or bad husbandry, are familiar to those who are acquainted with leases. Lawyers are generally considerate enough to limit the term of this penalty by the continuance of the offence, and even the charge of tithes now continues only so long as the productiveness of

the capital expended remains unexhausted. But the mercy of the legislature is to allow the parson to charge with a penal rent in perpetuity any landlord who by himself or his tenant is caught in the fact of productive cultivation.

The working of the principle in its effect on the industrious, as compared with the negligent cultivator, is objectionable and repulsive enough, and would alone, when the measure began to be felt, excite great and just complaint. But the more general and all pervading objection to the principle is the heavy perpetual charge which it fixes on that land which happens, during the last seven years, to have been under the plough, as compared with that which, during the same time, has been in pasture. We have before us an estimate of the value of the gross produce (one year with another) of a farm in one of the eastern counties, about one-third being meadow and pasture, and two-thirds under tillage, in what is called the four shift husbandry. As we know that the estimate was formed by an experienced man, and without any reference to such a catastrophe as the compulsory clauses would bring upon tillage farms, we prefer it as an illustration of the working of the bill to any supposed cases.

Estimate of the produce of a farm of 155½ acres in:—

25 acres in wheat, at 7 combs (3½ qrs.)			
per acre, at 25s .....	£245	0	0
24 do. barley, 10 combs per acre, at			
16s .....	194	0	0
25 do. turnips, &c .....	175	0	0*
25 do. clover .....	100	0	0

Gross produce of 99 acres arable £714 0 0

44½ meadow and pasture .....	89	0	0
12 rough pasture .....	18	0	0

155½

Gross produce of 56½ acres of meadow and pasture.....£107 0 0

It will be seen that the value of the gross produce of the arable land is about 714s per acre, the value of the gross produce of the meadow and pasture is about 117s per acre, though the land under the plough and that not under the plough are, as nearly as may be, of the same quality, and would yield about the

\* We confess this appears too high. But any reasonable deduction from this item will not materially affect the conclusion, and in many arable districts the bean crops substituted for turnips are very productive.

same rent. The gross tithe, after making a reduction of 25 per cent. according to clause 29 of the bill, would be represented by a perpetual rent-charge of 10s 9d per acre on the arable, and about 2s 9d per acre on the pasture (subject to a variation common to both rents according to the average prices of corn.) The difference between the charge on the different lands of the farm is, of course, of no consequence; but when we consider that different classes of landowners in England are represented by the 99 acres which are to be charged in perpetuity at 10s 9d, and the 50½ acres which are to be charged at 2s 9d, how intolerable will the injustice appear? Although the owner of the 99 acres may now pay a tithe equal to the amount of the threatened rent-charge, yet, when it suits his altered circumstances, or the altered circumstances of the country, that his land be laid into grass, he escapes the heavy burden. But when he has once become subject to a perpetual rent-charge, this escape is not open to him. He may, indeed, as before, lay his land under grass, but he will be subject to a rent three or four times as high as that charged on grass land of similar quality.

His misfortunes will not end here. Those who have had farms under pasture (the owners of the 50½ acres,) not having any longer the fear of tithe in kind before their eyes, will be enabled, by breaking up their lands, to come into competition with the owners of the land already under tillage. The latter will be crushed not only by their own burden, but by their not crowding the market of their more lightly burdened neighbours.

We have not sought for or stated an extreme case. In many places tracts of down land or poor pasture have been broken up, which it is now generally considered that it would have been good policy never to have disturbed, and which, wherever it is possible ought again to be returned to their former state. In these cases the tithe taken in kind is often not less than the rent, and the rent-charge fixed on such lands caught under cultivation, will make the parson the landlord.

Let us suppose a rent-charge of 7s or even 5s an acre fixed on the poor land on the top of the chalk hills, which at great expense is continued under cultivation, and which in many parishes even within thirty miles of London scarcely yields a rent. What possibility would there be under a continued reduction of the price of grain of continuing them under tillage? They must perforce be allowed to fall into a state of nature. But the rent-charge remains in unabated vigour, and with it the *trinidad necessitas* of the Bill, the powers of distress, entry, and perception of profits.

The first remedy which the tithe owner will resort to is distress; and as everything moveable will soon be exhausted, the power of entry will be brought into immediate operation, and the tithe owner is to take "the rents and profits to his own use until he shall be fully paid and satisfied the said rent-charge and all arrears thereof due at the time of such entry or during the time of his being in possession or in receipt of the rents." It is quite certain that under this provision large tracts of such poor land as we have mentioned must fall into the actual possession of the parson; who, as he has no temptation to improve it, must continue in possession so long as the patience of the country will allow. The Bill, indeed, in its mercy exempts the person of the landlord from any charge. But even this will be, in many cases, scarcely a benefit; for as few landlords are exempt from some other charge, when the land has been taken by the tithe-owner, the person of the landlord will be impounded by the mortgagee, until he shall walk

out under the Insolvent Act "as free as nature first made man," a striking example of the perfection of agricultural relief.

There is one other case (if it be worth while to enter into particular illustrations of the general effect of the measure) of very striking hardship. In many parishes, in the pauperised counties, there has been a forced cultivation during the last seven years under *labour rates*—an increased quantity of labour being employed, not for profit, or in expectation of profit, but for the temporary purpose of keeping a surplus population out of mischief, and (wisely or unwisely) under the sanction of an Act of Parliament. The employment of surplus labour of course increased the gross though it diminished the *net* returns. On this increase the Bill will attack; and the landowner will for ever pay an increased tithe-rent to the parson, on account of efforts (stimulated by the Legislature) to lighten the burdens of pauperism.

The injustice of the principle is acknowledged by the Bill itself, in the case of hops—for it appears to have become evident to the framers of the Bill, that it would be monstrous to allow a hop tithe-rent to be levied on lands after they had been returned to the plough or to pasture. But the difference between the operation of the Bill on hop land (had it not been specially provided for) and arable land, is in degree only; nor is the difference even in degree between the least expensive hop lands and the most expensive kinds of tillage so great as might be at first sight imagined. Between the hop grounds and many market gardens there is practically no difference even in degree, though even market gardens are not excepted in the Bill. On the case of these gardens we do not, however, dwell: for we feel convinced that the dullest sense of justice must be roused by the mere statement of the gardeners around London of the hardship of their case, and that they must be excepted in the same manner as the hop planters.

We must say a word of the effect on what is called "agricultural distress;" in which we do not include the case of the landlords we have described, who, being relieved of their estates, will be effectually discharged from all cares connected with agriculture.

The forced commutation effected in the manner proposed, odious to the landlord, will be followed by a louder and juster cry of agricultural distress than we have yet heard.

We have often dwelt on the fact, and it now begins to be acknowledged, that a great part of the distress of the anciently cultivated parts of England arises from the increased competition, through increased facilities of communication, of the more remote and more lightly burdened districts of the kingdom. The heavily burdened districts of the east and south of England will, after having been saddled with a new and perpetual charge, be exposed to the new class of competitors whom we have described—the owners of pasture lands of the remote counties, who will turn themselves to the supply of grain for the London market. The change of the course of tillage or industry, even when occasioned by the natural progress of society, and drawing with it an improvement in the quantity and quality of produce, is attended, like other changes, with much local inconvenience and suffering; but changes arising from the artificial inequalities of burdens, produce the inconvenience and suffering without the ample compensation of a public benefit.

We have exceeded our space. But what, too, must be the effect of the proposed system on the hopes of any relief from the Corn Laws? The pro-

spect held out to the landlord on a free admission of foreign corn, is a conversion of the land to pasture. But how can the legislature hold out to him this prospect of relief to the owner of arable land, when he is charged with a perpetual rent only tolerable so long as the present extent of tillage land suffers no diminution?

We entreat, therefore, the Ministers to pause before they press forward such a Bill, under which the only hope left for the owner and occupier would be, that the tithewoman would in his kindness forbear to use the powers which the Legislature should be absurd enough to grant.

## THE STATE OF AGRICULTURE.

(From the *Life Herald*)

We have much pleasure in referring our readers to a report of the proceedings of the half-yearly meeting of the Kirkcaldy Agricultural Association. The speeches which were delivered, it will be seen, are very far from being of the ordinary jejune description, and contain a great deal of good sense, founded on just and tolerably comprehensive views of the present position and future prospects of the profession of agriculture in this country. It is an old saying, that the knowledge of a disease is half the cure; and we have not the smallest doubt but that, when once the great body of our agriculturists shall have come to see clearly the nature of the evils which unfortunately beset their path, a very considerable progress, indeed, will have been made towards their removal. It seems abundantly evident that there are but three ways by which farmers can possibly escape from their present difficulties; either they must augment their produce through the medium of a more skilful mode of husbandry—obtain better prices for it when brought to market, or force their landlords to entertain less extravagant notions on the subject of rent. It behooves the farmer, then, not only to consider well what there is a reasonable prospect of effecting in each of these ways for his immediate advantage, but what are the great principles under the all-controlling power of circumstances which determine these points, in order that, as much as possible he may be possessed of data to regulate him in entering upon future engagements. As to the benefits derivable from improved culture, it is scarcely necessary to do more than simply allude to them. They have proved of great moment, and, no doubt, will continue to do so; they constitute a species of advantage appreciated and reckoned upon by every body. There is this peculiarity, however, attendant upon the gains arising to agriculturists from the introduction of superior plans of cultivation, that by augmenting the produce of the country, they directly tend to lower its market value; and, in this, we have an example of that community of welfare which not unfrequently, under the wisely arranged operation of natural causes, binds together the interests of the various classes of society. It is thus that with every improvement that takes place, whether in agriculture, machinery, or any thing else, the gain is not limited to the immediate agent, but ultimately flows onwards in order to augment the happiness of the community at large. The second channel by which at first sight it may be considered possible for agriculturists to escape from their present embarrassments, has reference to a general rise, independent of temporary or fluctuating causes in the market price of farm produce. But how is this to be obtained? By no other means certainly than through an increase of commercial prosperity. Any such wild project as another action on the circulating medium of the country, we

should think, must now be generally abandoned as at least impracticable; and, if so, it is clear that there is no other possible method by which prices of any sort can be raised and upheld, than either by diminishing the production of the article or by augmenting its consumption. Any attempt to diminish the amount of agricultural produce, however, by stepping backwards to an inferior mode of cultivation, would, generally speaking, be but making bad worse, and is a mode of procedure that would only be resorted to under the pressure of the most adverse circumstances. Barring bad harvests and deficient crops then, it is to an extension of our manufactures and commerce, which the agriculturalist must look as the real source from which an improved state of the market is to take its rise. With a thriving trade the power of consumption of agricultural produce on the part of society rapidly extends itself; and, under such circumstances, however quick may be the rate of agricultural improvement, there is much less risk that the increase of population will fall behind, than unduly stretch itself beyond, the proportionate stage of advancement. Here, we again see the identity of interest which obtains between commerce and agriculture. If agriculture, is the back bone of our national prosperity, it is commerce, which supplies the hands and the feet, the muscles and the nerves, which impart to it motion and vitality. Admitting this identity of interest then, between agriculture and commerce—which shows that there is in reality no such thing as sectional interests in the country—that under a proper system of government there is not a separate interest for agriculture and a separate interest for commerce, as the Tories would have us believe, but that the whole becomes merged into one general interest—the national interest,—the question immediately arises, what is the course of policy most promotive of this common interest? Now, this question has been settled long ago. Since the days of Adam Smith, only one answer with any show of reason has been given to it, and that is, that all trammels and fetters imposed by government upon trade are essentially pernicious. But trammels and fetters, notwithstanding, have constituted a most prominent feature of our national policy, and even yet the wheels of commerce continue bound down at the instance of agricultural cupidity. We trust that the farmers of *Life* will at length permit themselves to look dispassionately upon this great question in its true light. What interest has the farmer in retarding the well-being of the nation, by lending his aid in upholding such a monstrous cheat upon the general interests of the community as the iniquitous Corn-laws? Is it imagined that restraints upon commerce will lessen the competition for farms? The fact is, every other means except an increase of commercial prosperity which can be thought of for such a purpose must necessarily prove abortive. Farms cannot be multiplied like living beings; and, unless those branches of industry which admit of almost unlimited expansion are allowed the freest development, so as to provide the means of profitable employment for the rising generation there cannot be the smallest doubt, whatever may be said on the subject of landlords fixing their rents and choosing their tenants, that rack-rents will be the rule, and that leases upon Mr. Ainslie's principle of "thriving and growing rich" will continue the rare—the very rare exception. We now come, in the last place, to the topic of rent. However desirable grain-rents may be, and their adoption ought by all means to be encouraged, still they will be found to fall greatly short of the removal of the evil, which nothing but a great increase of national prosperity, in order to the draw-

ing off from agriculture the surplus competitors for farms, can effectually remove. But there is no partial remedy more immediately at hand than the abolition of the Corn-laws, or, at least, the imposition of a fixed in place of the present complicated system of fluctuating duties, which can be of service to the farmer? Yes, there is one law which operates most ruinously against the agricultural profession in favour of the personal interests of the landlord, and which ought immediately to be abolished—we mean the law of hypothec. It is through the unjust preference which the landlord possesses over other creditors in consequence of it, that he is mainly enabled to screw up the tenant to the last farthing. Deprive him of this instrument of power, and the profits of capital employed in agriculture will soon rise to the level of the general rate of profit of the country.

### THE DOVER RAILROAD.

(From the Maidstone Gazette.)

Let us first examine its probable effects on Maidstone, locally. If any munificent person were to appropriate a large yearly sum for ever, to defraying half the expense of carriage of all the goods that passed between London and Maidstone, he would be viewed as the greatest benefactor that this or any other county had ever known, and very probably a marble monument would be raised to his honour in some conspicuous part of Maidstone. We believe that the advantages, that are now offered by this railroad, are at least adequate to such a boon, and we hope that before our readers have risen from the perusal of these remarks, they will concur in that opinion. It is not necessary for us to say more about the south-eastern railroad, on the advantages of which an able letter will be found elsewhere, than that it will be ruinous to the prosperity of Maidstone. Nobody can blame the inhabitants of the Weald, who have as great a right to improve their position as the people of Maidstone,—but we hope to be able to prove that the inhabitants of the Weald will be almost as much benefited through Maidstone, by the Gravesend line, as by their own, and that too without injuring Maidstone. It is not improbable that Maidstone will become the hop-mart of the kingdom, where from the facility of getting hops to London at a short notice, the whole produce of the county will be warehoused, instead of being kept in the high-rented warehouses of Southwark. In that case it would become the residence of many hop-merchants, who would have the advantages of purchasing at the first hand, of founding their speculations on the progress of the growth, and of enjoying a delightful country residence, almost within reach of their offices in Southwark. Nobody will contend that an increase of respectable residents will not be beneficial to Maidstone. They may have some of their shop-goods from London, but it is very improbable that they will employ London butchers, bakers, carpenters, &c. The visitors who leave London for a day's recreation, and now resort to Greenwich, would infinitely prefer a gypsy party to the Boxley Hills, and the name of our old friend Kit's Coty would be as familiar in the mouths of young cockneys, as "run-tree-hill" and the "hob-serivatory." Let us now inquire into its effects on the farmers along the line. The case of the farmers has been so ably discussed by the correspondent of a Gravesend paper, that we make no scruple to extract it.

"It is a curious fact, that in almost every instance farmers are peculiarly alive to supposed injuries which

railways may inflict on them, whilst few are proportionably acute in discovering the benefits that must infallibly arise from them. For instance, close to London the market gardeners and dairy men exclaim that the railway will bring milk and vegetables from a distance of twenty miles as early as he can send them five. This is no doubt the fact; but the farmer twenty miles off, instead of looking to the advantage he would thereby attain, immediately cries out, that he supplies London with butter, and calves, and lambs, and that the railway will bring them up sixty or seventy miles as easily as he could send them twenty. Then at sixty or seventy miles from London, the farmer perhaps will tell you that he is a breeder of horses, or supplies stage-coach masters with oats and beans, and that as the railway will put down the stage coaches, he shall find no market for his produce. Now the truth is, that though each and every of these persons may be to a certain extent right, in the particular apprehension which he entertains, still there is no one injury which the railway inflicts, for which it does not provide more than an equivalent. They who have most cause to complain are the occupiers of land immediately round London, because at present they enjoy from their position a lucrative monopoly. The land which is let as dairy land round London is known to fetch a most enormous rent, and the business of a suburban cow-keeper is also well known to be more profitable than that of a country farmer. If, therefore, the railway places the farmers fifteen to thirty miles from London, in a condition to compete successfully in the supply of milk with the cow-keeper in the immediate neighbourhood of London, can it be doubted that the value of his land will be increased, and his own condition bettered by turning cow-keeper instead of suckling calves, and rearing lambs? That the railway will place him in that position must be admitted, because twenty miles will be traversed by it as quickly as five by a cart on the common roads, and moreover the motion of a railway carriage is so easy that the milk and cream will not suffer from jolting which might injure it in so long a journey."

The writer might have added that the oats and beans may be applied to the fattening of bullocks, instead of the feeding of horses. The advantage of being able to procure gypsum, bone-dust, and other species of manure, (particularly salt from Bristol and Droitwich, which will probably in a few years supersede every other manure,) and of being able to send agricultural produce, beasts, sheep, &c., to market, from some parts of the country which are now almost inaccessible in winter,—will be incalculable and will of course proportionably raise the value of the land, and benefit the cultivator.

### SOAP AND TALLOW DUTIES.

Extract from the Debate upon Mr. Handley's Motion on the 15th of March.

Mr. HANDLEY then moved a resolution to the effect that it was expedient to repeal the excise duty on soap and to augment the custom duties on foreign tallow. He said he could not act upon the suggestion of the right hon. gentleman, and the reason why he could not was, because the disposal of so large a portion of revenue would not meet with the approbation of those whom he represented. The parties in whose behalf he now appeared, were unfortunately too often excluded from the financial operations of the Chancellor of the Exchequer, from whatever side of the House he might come. (*A laugh.*) His Majesty in his gracious speech from the throne, called on the House to direct a special inquiry into whatever measures might alleviate the distress of the agricultural districts. The existence of



great agricultural distress was well known, and its character was not mitigated up to last year. He believed that the manufacturers and operatives had come to the opinion that prices might be too low when accompanied by the distress of the agricultural classes. From 1810 to 1820 the average price of tallow was 73s per cwt; from 1820 to 1830 it had fallen to 42s. Independent of having to contend with a low duty on tallow, and a large foreign supply, the soap-manufacturer, who was perhaps their best customer, had to contend against a system of excise which nothing but necessity would justify. What would be thought of that system which debarred manufacturers from availing themselves of the improvements which chemical research and discovery presented to them? The soap-manufacturers had long been restricted from making use of such discoveries: they were even now subject to the same restrictions as were imposed in the reign of Queen Anne. And what was the result? There was smuggling to a great extent. Owing to there being no duty in Ireland, the smuggling from that country was considerable; the home manufacturer was unable to compete with the foreign producer; and there was no export trade. He should now refer to the report of the Excise Commissioners as to this subject; but before he opened that Pandora box, he would mention that the first recommendation of the commissioners was, that the duty should be extended to Ireland, and the regulations be the same in both countries. He congratulated the hon. and learned gentleman for Dublin that even-handed justice was about, at length, to be dealt out to the sister kingdom. (*Laughter and Opposition cheers.*) He trusted that he should have the hon. and learned gentleman's support. Either the hon. and learned gentleman must vote for his motion, this night, or he must submit to see his fair land trodden by a formidable phalanx of soap-duty-collecting excisemen. (*A laugh.*) He supposed he was upon this occasion to be opposed by the right hon. the President of the Board of Trade, whom he observed taking notes; but it was to be remembered that that right hon. gentleman had proposed taking the duty off printed calicoes and putting it on cotton. In opposition to what he had heard proposed, he was conscious that it might no doubt be said, that it would be found a great inconvenience to Russia if they imposed a greater duty upon tallow than what there was at this moment upon the article: that in fact Russia would not like to see a greater duty imposed. Now he would say that, so far as Russia was concerned, we took three times the amount of value from Russia that she took from us. (*Hear, hear.*) Russia imposed a duty of 12½ per cent. upon all our goods, and excluded altogether our refined sugars. (*Hear, hear, hear.*) It seemed from the discussion of the other evening that nothing was to be done with regard to the spirit licences, and that evening they found the right hon. the Chancellor of the Exchequer had bespoken a large portion of the revenue. He very much doubted that so large a portion was allocated in a manner quite congenial to the feelings of the moral population of the country. (*Hear, and cheers from the Opposition.*) Unquestionably what had been proposed that evening, did not appear to him to be of much benefit to those solely interested in the land, nor to bear out the recommendations which had been made upon this subject by their gracious Sovereign; nor could he see how it was calculated to meet any recommendation of the agricultural committee, when, at a later period of the present session, it should suggest for the agriculturists any particular mode of relief. (*Hear.*) They would have other disadvantages still to contend against—their position would be still worse, unless there was from that House a strong recommendation to the right hon. the Chancellor of the Exchequer to take this subject into consideration. The tax now, with costs of collection, was 600,000*l.* By imposing upon Russian tallow a duty of 10*l.* a ton, they would be able to raise 320,000*l.* leaving 280,000*l.* to come out of the surplus. He was aware that what he proposed was calculated to raise the price of candles. That was the difficulty in this case, and the only one, he believed, against which he had to contend. A penny a pound had been taken off candles recently, and the amount of the duty that

would now be imposed would not be the half of that; but seeing that candles and soap were consumed by the same persons, and the diminution in soap being four times as great as the amount that would be imposed upon candles, the public must therefore be greatly benefited by the bargain. He should now conclude by moving, in the terms of his motion, "That it is expedient to repeal the excise duty on soap, and to augment the customs' duties on foreign tallow." After the motion had been read from the chair, the hon. member changed it for one to the effect, that the House should resolve itself into a committee upon customs and excise, for the purpose of considering the propriety of lowering the duty on soap, and augmenting the customs' duty on foreign tallow.—Mr. HALFORD seconded the motion, and in doing so declared that the clear and lucid manner in which the hon. gentleman had submitted his motion to the House, rendered it unnecessary for him to say more than a very few words in supporting it. The proposal of the hon. gentleman, in his opinion, was calculated to benefit the agricultural interests, and not only their interests, but, in his opinion, that of every other class of the community. He knew very well that they would hear of the impolicy of imposing a tax upon the raw material. He took such an argument as rather serving to show that, under the present circumstances, if they were to admit foreign articles of common necessity to the home producer, there was also a scale of duties which afforded no protection to the British producers, and robbed them of that fair remuneration to which they were entitled. It was his opinion that free trade and political economy did not apply to such a subject as this. He had no doubt that the small increase of duty which was now sought for on the foreign article would increase the value of land about 30s per acre—there would be an advance in the price to that amount. He would say for himself that he was bound up with the manufacturing interest, and was the representative of a manufacturing as well as an agricultural district. It was clear that any injury done to the manufacturers would immediately be recoiled upon the land. In the district that he represented this was felt to be the case. Leicestershire was a county in which the manufacturers exceeded the agriculturists—there 139,303*l.* 6s was levied in one year for poor and county rates, and in that contribution paid by mills and factories liable to the assessments was but 783*l.* The cost of a candle, which gave light in the cottage of a Leicestershire weaver, was to be deducted from his scanty earnings. Such an individual would feel the increased cost; but the proposal of his hon. friend comprised a reduction in an article which was equally necessary. That proposal he rejoiced in as of great importance, and he was prepared to give it his unqualified support. On the financial part of the subject he had very little to say, but if he were competent to do so, he should ask them whether they would choose between cheap newspapers and cheap soap?—which was most conducive to the comfort of the labouring part of the community? (*Hear, and cheers from the Opposition.*)—Mr. POULLETT THOMSON stated, that it was not upon the relative merits of his hon. friend's proposition, as compared with the repeal of the tax upon newspapers, that he should wish to argue this question (*hear, and cheers from the Opposition*); but he was prepared to argue this question upon the simple proposition of his hon. friend, and to say, that if the revenue were in a condition to spare the amount which his hon. friend proposed to claim, this was not the mode in which he should be inclined to appropriate it; because he believed that the proposition of his hon. friend would not be conducive either to the general advantage of the country, or to the particular advantage of a class whose interests he advocated; and because, above all, he was satisfied that it was entirely opposed to the whole course of legislation which had been followed up for years by successive governments, beginning with the government in 1820 under Lord Liverpool; by the government of the Duke of Wellington; by the government of Lord Grey; by the government of the right hon. gentleman opposite, and by the government at present existing. (*Hear, hear.*) He did not believe that the proposition

of his hon. friend had been correctly stated as to its bearings by him. His hon. friend, so far as he understood him, proposed to transfer the duty to this extent; he wished to get rid of the excise duty, and he proposed to make up for the loss of this duty, by the imposition of a fresh tax; that was a duty of 10*l* per ton. His hon. friend stated as the result, a loss of 250,000*l* to the revenue; and as he understood his hon. friend, the gain to the consumer would be 300,000*l*. Now, if the House would indulge him for a few minutes, he would, from his calculations, undertake to show that the consumer would not be benefited, that the landed proprietor would not be benefited, and that the country generally would lose a great deal. (*Hear, hear.*) The consumption of tallow in this country was 155,000 tons; of these 55,000 tons were foreign tallow which were imported, and there were 100,000 tons home produce. Take then the revenue on the plan of his hon. friend, supposing his plan to be carried into effect, and that 55,000 tons was the quantity at present imported; suppose that so much should continue to be imported (and he was prepared to show afterwards that such would not be the case), but supposing the same quantity should still come into the home market the duty upon that would be 550,000*l*. From that they should deduct the amount of the duty at present imposed, 171,000*l*, and there remained then the sum of 379,000*l*, as to probable revenue. His hon. friend has proposed the repeal of the soap duty, which he said was about 600,000*l*. That was the duty in 1834; but the net amount of the duty, deducting the drawback, was 736,000*l*. His hon. friend had added a charge for collection; but they all knew from experience that where the excise existed for certain purposes, the reduction of officers would be nothing like the large amount or equal to the difference which his hon. friend had stated. (*Hear.*) Deducting then 379,000*l* from 736,000*l*, the loss to the revenue would be 355,000*l* according to his hon. friend's plan. But according to that statement he supposed that there would be no falling off in the import of the article; but he was not right in assuming that; on the contrary, the natural result would be of imposing where there was 3*l* a ton duty, an additional 7*l* a ton, adding to the price of the article 20 per cent. There was every reason for calculating, when that was done, that there would be a falling off of 15,000 or 20,000 tons. That would reduce the revenue still further—it would increase the loss of the revenue, as stated by his hon. friend, 250,000*l*; but by him 350,000*l*. This was to be regarded as a question of revenue—and as a loss to the revenue of such a sum they had to look to it. But he now came to another part of the argument of his hon. friend, namely, the gain to the consumer, which had been stated at 300,000*l*. His hon. friend had admitted, indeed, that some disadvantage would perhaps arise from the increased price of candles. That increased sum was to be paid by the consumer; and there was also an increased sum to be paid by those using machinery. But really his hon. friend had passed by this part of the subject, as if it were of very little importance. That such a course should be taken by his hon. friend greatly astonished him. (*Hear, hear.*) There were 200,000 tons of home tallow, and of foreign 55,000 tons. How then did they come into consumption? According to facts and calculations which could be made, it appeared that the amount of tallow consumed in soap was 25,000 tons. He could give his hon. friend the calculations, and he would find that the total amount of soap charged was 67,000 tons. It was calculated that there was about 11 cwt. of tallow to a ton of soap. There were, then, 96,000 tons of tallow for the consumption of soap. What was the quantity used in machinery? Possibly 15,0 tons; and thus they had one hundred and thirty thousand tons of tallow on which his hon. friend proposed an additional tax, and 25,000 tons from which he proposed to take off the duty. (*Hear, hear.*) He had made this calculation, and he supposed that the 130,000 tons, on which his hon. friend proposed to increase the duty by the amount of 6*l* 16*s* (the present duty being 3*l* 4*s* added to it, would make it 10*l* the ton), that would amount to 884,000*l*. He added, of course to this sum, the 25,000 tons used on soap, the amount on which

would be 170,000*l*, that would make a total of 1,024,000*l* according to his estimate; therefore, if they took 736,000*l* from the 1,024,000*l*, they would have the remaining sum lost. There would be this loss instead of the gain to the consumer. (*Hear, hear.*) The only mode proposed for securing the revenue was by raising the amount of duty 6*l* 16*s* a ton, that was supposing the amount imported as at present should continue; it was the only mode by which they could secure the revenue. But when the duty was raised so much a ton, and the impost was found to fail, they would be obliged to go as high as 20*l* a ton to have any chance of saving the revenue from loss. His hon. friend had said, that according to their own principles he could show that they had acted in a manner similar to what he now proposed, and gave as an instance the article of wax. His hon. friend, with his acuteness, should have seen the difference between the two subjects. It has been said "there is a river at Macedon and a river in Monmouth," and there was no more analogy between the two questions, than between those two points. There was but a small quantity of foreign wax imported; and when the excise duty upon candles was wholly repealed, it was not considered advisable to continue all the labour, trouble, and vexation of inspecting the import of such articles for a duty which was trifling in amount. He came now to the article of cottons. The duty was calculated at 2,600,000*l* sterling; but there was received from it at the Exchequer but 500,000*l*, all the rest went in drawbacks; and under all these considerations they came to this—whether for 500,000*l* they would undergo all the annoyance and trouble imposed, as well as placing impediments in the way of trade, and that for collecting the excise duty on an article calculated to bring to the Exchequer 2,000,000*l*, but of which the real amount was only 500,000*l*. What was their duty then? It was some indication what was likely to be the consequences, that to induce the House to agree to the motion, it was expressly and distinctly stated that it could be but temporary. (*Hear.*) The tax upon cotton was admitted to be a bad one. Two years afterwards it was found to be so bad, that his noble friend and himself had the satisfaction of coming down to that House and declaring that they would get rid of the obnoxious tax—and they now felt the full advantage of its certain repeal. (*Hear.*) But what benefit for the agriculturists did his hon. friend propose in the imposition of a duty of 10*l* upon foreign tallow for a year or two, to raise expectations which could not be realised? Those hopes would be disappointed, and those who were now urging on the present question would call loudly for the repeal of a tax so very obnoxious as a tax upon a raw material important and useful to a large number of the manufacturers of this country. (*Hear, hear, hear.*) He must observe, on the whole view of the case, that a more extraordinary proposal he had never heard of than that of his hon. friend, which would in effect be to raise the duty on exported soap to 10*l*, whilst it was well known that it could not now be exported at a duty of 3*l*. (*Hear, hear.*) In conclusion, he would intreat the House not to be induced, under the pretence, an honest pretence, he believed, of transferring the burden of one tax to another commodity, to break in upon the system which had been matured and acted upon with such good effect for a long series of years. As to the duty on soap, he would remind the House that that had already been reduced by one-half from what it was, a circumstance which, he thought, gave it the less claim to immediate consideration with a view to further reduction; as for his own part, he was inclined to believe the amount might be better applied to the relief of the agriculturist than by a remission of this particular tax. (*Hear, hear.*) It was on these grounds that he was prepared to resist the proposal of his hon. friend, a course in which he trusted he should be supported by the House.—Mr. HANDLEY replied, he only asked the House to do that for the agricultural interest which the right hon. gentleman the Chancellor of the Exchequer had that evening announced he intended to do with respect to the stamp duties on newspapers.—The House then divided, when there appeared—For the resolution, 125, against it, 195; majority for Ministers, 70.

## TURF INTELLIGENCE.

The avocations of the sportsman may be said to constitute a circle of the most interesting amusement; as, no sooner does he cease to pursue the fox, than the operations of the race course are placed before his eyes; and, therefore, with a view to assist his prospective calculation, as far, at least, as reference is concerned, he will find appended to this article the nominations for the principal stakes throughout the kingdom.

We had supposed it was intended by Mr. Theobald that Rockingham should not again appear on the course; but, it seems, he is named for the Ascot cup, in which also Touchstone makes his appearance; so that, although the formal challenge of the latter was not accepted, which we thought it ought to have been by Rockingham, these horses, both winners of the Doncaster St. Leger, and both consequently possessing superior pretensions, will be brought against each other as fairly as possible. They will "*lie by*" for the contest, and an extraordinary race may be expected.

At the period when the Marquis of Westminster promulgated his challenge for Touchstone, we stated it as our opinion that no racer was able to meet him, at least with a prospect of success, except Rockingham; supposing at the time that Plenipo would never appear again on the theatre of competition, being also aware that Queen of Trumps could not accept the challenge in question on account of its conditions. It is true, Touchstone has been beaten by General Chasse; but there is much reason to believe the success of the latter was owing to the former not being in the best possible condition. We always considered Touchstone as superior to General Chasse, both in speed and powers of endurance, to say nothing of the unruly disinclination to start occasionally manifested by the latter. However, on the other hand, it should be recollected, that the fore legs of a greedy feeder are very liable to "*go*," and, on this account, implicit reliance cannot be placed upon Touchstone. The powers of Touchstone are much inferior to those of Plenipo and Queen of Trumps, particularly the former. Whatever mystery may envelope the turf operations of Plenipo, it has always been our decided conviction, that Mr. Batson never lent his countenance to the swindling transaction at Doncaster; and, as to the Ascot cup affair, it amounts to this, Mr. Batson did not choose to let his horse start for it, and gave notice of his altered intention on the morning of the previous day on which the event was to be decided. Such a circumstance might affect the Book-Man in regard to double events, and p. p. bets, but that circumstance could not be considered an indispensable calculation with the owner of Plenipo. Further, this gentleman declined answering some impertinent questions put to him by an inflated literary

coxcomb, whose mawkish nonsense appears in a dingily-spurious cotemporary; he also rendered himself inaccessible to the weasel-like squeaking of the *soi-disant* "Sporting Reporter;" and, hence may be traced the sources of vituperative abuse with which it has been attempted to bespatter him through the medium of the press. At all events, whatever construction may be put on the racing career of Plenipo, no doubt can be entertained that he is the best horse which has appeared for the last fifty years; we are, indeed, of opinion that he is superior to all his predecessors. He has left the turf (or, at least, so we suppose, from not observing his name in any list which has fallen under our cognizance,) with a sound constitution, altogether free, we believe, from blemish; and therefore, when his form, his mode of going, and his performances, are duly considered, he must appear invaluable as a stallion.

Steeple racing has, of late, been the order of the day, from one end of the kingdom to the other. Up to the present time, there appeared something defective and unsatisfactory in this species of amusement, because the pedestrian spectators could only catch a partial or transitory glimpse of the emulative contest: they might watch the start, or observe the coming in; they might station themselves so as to witness the central exertions for the prize; yet neither the one nor the other gave that sort of satisfaction which is experienced from witnessing a contest on the race course. However, the difficulty has at length been surmounted; and, amongst the obligations for which the racing world is indebted to Liverpool, is what may be called the improvement, if not completion, of the steeple race. At the steeple races, which came off at Liverpool, on the 29th of February, it was so contrived, that the horses should start opposite the grand stand on the race course, and after describing an ill-defined serpentine-sort of a circle (if such an expression be allowable) return to the race course, the last half mile of which (perfectly straight) forming the run in, upon which hurdles were placed, in order to render the business as characteristic and as complete as possible; the horses never being out of sight during the whole race.

Viscount Molyneux was the umpire of the Liverpool steeple races, the grand stand was filled with rank and fashion, the arrangements altogether were admirable; yet, as if to show the fallibility of all human institutions, the first race was tainted with suspicion,—well-founded suspicion of sinister interference and unfair play. Sir T. Stanley's Laurie Todd became the favourite the moment he was named for the stake; and, as no pains were spared in training him for the purpose, as the day of trial approached, he was freely booked to win. He was known to possess

superior speed from his performances on the race course, from which, however, he was withdrawn, owing to his restive disposition. He had been hunted for several seasons with the fox hounds of his owner, generally ridden by Joe Howard, the first whipper-in: his vicious disposition had therefore been in a great degree neutralized, he had become a tolerable fencer, while, on the score of speed, he was able to distance all his competitors—with ease. Such was the state of the case, when the horses came to the post.

All went on very well for some time—till, in fact, the horses approached the race course on their return, when Laurie Todd appeared in front, looking like a winner. The business had been so contrived that the horses should pass through a gate place, situated near Blue Anchor Bridge, both on going out and returning; and for that purpose the gate had been chained securely back or open. Cockahoop was known to be an extraordinary jumper, and it was thought by a person, who stood to win on him, that the gate, if shut, would prove an insurmountable obstacle to Laurie Todd, whom he alone dreaded; he had placed himself for the purpose, and on the approach of the horses, knocked out the staple which held back the gate with a stone, and closed it—as he thought unobserved. As Laurie Todd had passed through the gate place on running out, he made for it naturally enough on his return. Laurie Todd had lost an eye, and so resolutely did he rush for the gate place that his rider could scarcely twist him from it; in fact, owing to this unlooked-for and awkward circumstance, the horse made a sort of swerve at the adjoining fence, came down, unhorsed his rider, and before Mr. Powell had time to remount, Cockahoop run against him, by which he was slightly hurt, and by which the success of Laurie Todd was rendered impossible. Cockahoop was thus much impeded in his progress, and Captain Beecher enable to win on The Duke, without difficulty. The sinister meddler is well known, and the finger of scorn must for ever point to the dealer in *coculus indicus*, *mandragora*, and other drowsy syrups!

The Queen of Trumps has accepted for the trade cup in Liverpool Craven Meeting, and is to carry 8st 11lb—enough, in all conscience, for a four-year-old to labour under for two miles and a half, the latter part of which is very distressing, being a straight half mile, with a gradual ascent; a very short period of dry weather renders the Liverpool course as hard as a Macadamised road; and therefore, under all the circumstances of the case, we cannot divest ourselves of fears for the safety of the Cambrian Queen's suspicious fore feet; she possesses uncommon power as well as extraordinary speed (the one resulting principally from the other) and we should be inclined to book her to win, even against General Chasse upon his favourite course, *could she be insured from "breaking down"*—of which, however, looking at her

family, particularly at her sire (*Velocipede*) as well as at her age, we cannot help entertaining doubts. She has sustained no severe public race, because she could so very easily outstrip all her competitors, which is greatly in her favour; but then she carried weight for age; now, however, that she has been handicapped, and an extra weight allotted her, we cannot help regarding her as an uncertain animal to back. General Chasse (five years old) has no ordinary weight to carry, 9st 4lb, which must surely bring him below several inferior horses which appear as his opponents; for instance, Sir J. Gerard's *Billinge* (a five-year old), if he be not "as slow as a top," ought to run well home with 7st 10lbs. Or, what should prevent Jupiter from winning, seeing that he carries 16lbs less than the General, and 9lb less than Queen of Trumps?

For the Trade Cup in the Liverpool July Meeting Queen of Trumps does not appear; in which, however, General Chasse shews himself, with the same weight as in the Craven Meeting; he is met, amongst the rest, by Red Rover, the present favourite for the Chester Cup, carrying 8lb less (8st 10lb) which ought to make him a formidable rival. The General and Red Rover are each five years old, 5lb are equal to a distance, or 240 yards, and therefore if Red Rover can support his present pretensions, he cannot fail to beat the General. Time will show. Where the powers of the competitors are weighed as finely as gold, as in handicaps, for instance, predictions upon the event become very uncertain.

Hitherto we have been speaking of events of the first consideration in the provinces, but which excite little interest amongst the metropolitan turfites (if at least we except the Ascot Cup) whose semi-hebdomadal disquisitions at Hyde Park Corner are principally directed to the prospective contemplation, at the present moment, of the Riddlesworth, the Portland Handicap, the Derby, and the Oaks; on the two former of which considerable business has been transacted; while the Derby presents a formidable array of figures upon paper, which amounts to little as far as money transactions are concerned; in the language of the school, no "blow has been struck," though the fine weather (which commenced on the 18th ult.) by dissipating, in some degree, the hitherto impervious cloud which enveloped the mystery of the training stable, will unquestionably infuse into the betting circle an energetic vigour, of which, throughout the winter, it has been utterly destitute. The Oaks has been characterised by a state of vapid inanition throughout the last month, or at least from its commencement up to the period when these manuscript remarks were placed in the hands of that most valuable member of society, that instructive luminary of the mental world, the compositor.





A HERFORD OX,  
THE PROPERTY OF T. SENYOR, ESQ. AYLESBURY;  
Exhibited at the Smithfield Show, 1855  
Engraved & Published by J. B. G. & Co. 41, Fleet Street, London.

# THE FARMER'S MAGAZINE.

MAY, 1836.

No. 5.]

[VOL. IV.

## THE PLATE.

The subject of the Plate is a Four Years and Two Months old Ox, of the pure Hereford breed ; bred by the REV. J. SMYTHES, of Lynch Court, near Leominster, Herefordshire, and fed by J. T. SENIOR, Esq., of Aylesbury, Bucks. This animal was exhibited at the last Smithfield Show, when a premium of Twenty Sovereigns was awarded to the Feeder and a Silver Medal to the Breeder. This Ox was much admired, and considered a perfect specimen of the true Hereford stock.

## ORIGINAL LETTERS.

No. XXIII.

### TO THE EDITOR OF THE FARMER'S MAGAZINE.

"It is incalculable what is gained by substituting division of labour for division of land."—HARRIET MARTINEAU.

SIR,—An extract lately given in the "Times" from Mr. Gleig's new work, the "Chronicles of Waltham," has induced me to revert to a subject on which I addressed a letter to you about two years ago, viz., the remedy of small farms as the favourite panacea of some writers for agricultural distress. On the occasion to which I have referred some of your correspondents, in alluding to my letter, expressed an entirely different opinion on this principle and very fairly attempted to show that my views on the subject were fallacious. It was not from the want of respect to the opinions of other men, neither was it from any conviction wrought on my mind from the letters of your subscribers, that induced me to decline to answer their objections to my arguments. The truth is, that when I have committed an opinion to your pages, I conceive you and your readers to be the legitimate judges of its correctness, and, consequently, unless I am misconstrued or misunderstood, I feel all I have to do is to remain quiet on the subject.

I know but little of the fashionable reading of the day, and therefore I am not likely to form any very correct estimate of the influence of this new production of Mr. Gleig's on society. I know he is an author of some repute, and it also appears to me, from the extract I have mentioned, that he has adopted a plan for conveying his opinions very likely to secure him the attention of a numerous class of readers, who, although they may view political economy as an interesting science as a whole, still may be possessed of very little taste for the consideration of the subject in a matter of fact form of detail.

Now, Mr. Gleig's plan is to leap over this latter difficulty by giving the interest of a novel in advocating his opinions of Political Economy. It may be prejudice, perhaps, but I confess I do not like this flippant manner of attempting to instil an abstruse and difficult, but, at the same time, a most useful and necessary science. Whenever I meet with a harmonious or romantic writer of statistics it always reminds me of the Fable of the Ass attempting the frolics of the lap dog, or of a grave Chancery Barrister divested of his "Wig of Wisdom" having a game of trap-ball with some half-dozen boarding school heroes, happy in their Midsummer holidays. Fortunately for me I can avail myself of the universal proverb, "that the exception forms the rule," and so except the pamphlets of Miss Martineau from the above observations—just as *some persons* choose to except Scott's novels from the objections usually attached to fiction and romance.

That small farms under certain circumstances and certain situations may be adopted with advantage does not appear to me to admit of any question ; but the very fact of the extensive incorporation of small farms into large farms under the peculiar circumstances of this country during the last 50 years, appears to me to be of itself a conclusive testimony of the policy of the proceeding. The wants and necessities of man teach him wisdom, sagacity, and prudence: this was a mercy especially granted by our Maker when he passed the curse of sin on our first parents, and this blessing has gradually developed itself from the beginning according to the events of each succeeding generation. How wonderfully this wise dispensation appears to have operated in this kingdom during the last half century you have clearly illustrated in an article published in your March number, and taken from the Edinburgh Review, on the "State of Agriculture." Here we have the tremendous fact recalled to our minds that from the year 1790 to 1830, a period of only 40 years,

the population of this country increased from between eight and nine millions of souls to nearly fourteen millions of souls, and that the quantity of the produce of the land has increased in an equal degree to the increase of the population. Now, in the face of these strong and authenticated facts persons are to be found, and Mr. Gleig appears to be among the number who are ready to assert, that during this progressive and astonishing increase of the means of sustaining human life, we have been pursuing a course directly opposed, and indeed fatal to the interests of the people in the means adopted to produce this necessary increase of food. This is truly a difficult doctrine to bring one's mind to.

The soundest basis on which a theory can be supported is by reference to the past as experience for the future; but here we have an outcry against extensive farming, although it is undoubtedly shown that the increase of the produce of the soil has kept due pace with the increased extent of farms throughout the country. The author of the "Chronicles of Waltham," in order, I suppose, to give an interest to his reasoning, would have his readers believe that the throwing together of small farms—in order to make large ones—was effected by the most heartless and unjust conduct on the part of landed proprietors towards small occupiers, by ejecting them from their farms and homesteads, to make room for the larger farmers or yeomen; in fact, Mr. Gleig represents the conduct of the English landlords in this respect to have been somewhat as ruthless and inconsiderate towards their humble tenants, during the period of agricultural prosperity, as the Irish landlords of modern days are supposed to be unfeeling towards their dependants. It is from a false impression on this matter which causes Mr. Gleig to fall into a long string of errors. It was not the landlords that drove off the small farmers at that period, but it was the advancing system of agriculture; the extensive employment of capital in the improvement and cultivation of the land, which it was quite incompetent for the small farmers to undertake, and which rendered it impossible for them to compete with their richer neighbours in the market for land. Human nature, as far as I can understand, was formed of about the same materials in the year 1800 that we find it to be in 1836, and the consequence was, that landlords had the very natural predilection to high rents and responsible tenants in preference to low rents exacted from pauper occupiers. This was the real cause of the union of this class of persons, a cause severe in its effects towards those on whom it bore heavily, but fraught with consequences to the community too vast in its nature to attempt a delineation, and too vast in its effect in increasing the produce of the land to leave a doubt in the opinion of any reasonable set of men who possess a moderate share of knowledge of rural affairs; but that the mind of man, under the blessing of Providence, in this difficulty, adopted the only remedy within its reach, in order to obtain a sufficient increased production of food to support the wonderful increased population of the country. The present depressed state of the landed interest does not offer, that I am aware of, any feature of a *suicidal nature*, but, on the contrary, I think it must be a general impression, that if enterprise, skill, and capital could at all times and under all difficulties ensure success to its possessors, the landed interest at this time would not be hastening to destruction. No, this depression is not brought about by the changing of small farms into large farms, neither does it owe its existence to any profuse manner of living or habits of life peculiar to those depending on the land, but it

is to be attributed entirely to those unfortunate measures of Parliament commonly known as Pitt's Bank Restriction Act of 1797—Peel's Bill of 1819—and that odious, wicked, and demoralizing impost the Malt Tax. The Bank Restriction was the Parent Demon, and Peel's Bill the Offspring. Let me now take you for a few minutes to the first chapter of the first book of Smith's *Wealth of Nations*, and we shall find that "Division of Labour" is the subject this great man is dealing with; and here we are told, "the impossibility of making so complete and entire a separation of all the different branches employed in agriculture is, perhaps, the reason why the improvement of the productive powers of labour in this art do not always keep pace with the improvements in manufactures. The most opulent nations indeed generally excel all their neighbours in agriculture, as well as in manufactures; but they are commonly more distinguished by their superiority in the latter than in the former." Adam Smith wrote his profound work about the year 1773, at which period the population of England was not less than eight millions. The extensive system of farming was not then generally adopted. Now, at that time had this acute philosopher been told that within the next succeeding fifty or sixty years there was to be an increase of five or six millions of people, would it not have been immediately obvious to his comprehensive mind that the necessity thus brought about for an increased production of food would have the effect of improving the art of agriculture in an astonishing degree?

Now, with such of us as have had the benefit of subsequent experience there *can be* but one opinion on this subject. The improvement of British agriculture during the last half century has been truly astounding; and now let us inquire how the great principle of the "*Division of Labour*" has been assisting to this end. Adam Smith tells us, that with the exception of the separate occupation of a shepherd it was not competent to the farmer of his day to avail himself of the great benefit of the division of labour of which so effective an example was afforded him by artisans and manufacturers. This observation strictly applied to the existing circumstances of the time at which he wrote. The Hill or Flock Farms of that period were almost exclusively appropriated to the keeping of sheep. But little was then known of a succession of green and corn crops, and consequently but a small part of the arable land was kept in tilth, the far greater portion being in old grass lays for sheep feed. For such a system of farming it required but a trifling extent either of manual or horse labour, and so it was necessary, as Adam Smith describes, for the agricultural labourer to be Jack of all Trades, carter, hedger, thrasher, &c., &c., just as the season of the year required. The fertile corn lands and rich lowland pastures were at this time divided into small occupations; the expense attendant on cultivating this description of soil had the effect of rendering it impossible for the capital of the farmer of those days to command any thing like an extensive holding. With such a cramped state of things it was found possible to support eight millions of persons from the produce of the earth; but, when these eight millions had added one-third more to their numbers, and far more than a proportion of one-third to their individual wants, in the comforts and necessities of life, the facility and means of production available by the "*Division of Labour*" soon began to unfold its secrets to the cultivators of the soil. The Hill or Flock Farms which had heretofore been used almost exclusively for the keeping of sheep now



began to assume a very different system of management. By a judicious outlay of capital and by a happy combination of the growth of corn, with the feeding of stock, not only was there a great increase of the produce of the white crops from this description of land, but the means of keeping many more sheep was found to be the result of these improved arable resources; and now it was no longer difficult, as Adam Smith describes it to have been in 1775, to adopt a division of labour in the economy of the management of a farm. On the same Hill farm, where the needy occupier of 1775 employed perhaps only a shepherd and one or two other men, did the whole of the work of the farm with a team of four horses, and whose flock of sheep did not exceed two or three hundred ewes, was now to be found under the management of a man of capital employing a shepherd, an under-shepherd, two or three carters, an ox-man, hedgers, thrashers, and a host of helpers in the different pursuits of the modern method of farming. Now, the occasion for horse labour had increased from four to ten or twelve, independent of an ox team, and the flock of sheep of the last century, miserable both as to character and number, was found to be astonishingly improved in the former, and equally increased in the latter of these deficiencies. In the lowlands and rich arable vales too it now became obvious that by the division of labour superseding the division of land, the means of a great increase of produce as well as a great increased demand for labour was immediately the consequence. It was now discovered, on land which had been esteemed *too good* to apply to the keeping of stock, that by a judicious provision of esculent food, not only was a considerable profit derived from this resource, but that at the same time this system of farming had the effect of increasing the produce of the corn crops. Thus, under these circumstances, the character and habits of the tenantry of this country underwent a complete change. The rental of the land was naturally enough increased by the improved system of agriculture, or in other words by the newly-discovered capabilities of the productiveness of land; but, as these resources were only within the reach of the capitalist, he alone could afford to give the increased rental value, and the man whose only capital was labour felt it more to his advantage and comfort to exchange his labour for the money of a master than to embark it in the uncertain speculation of producing a small crop for the market, and where he must have contended, with manifest disadvantage in company with the larger occupier; he found, that labour separated from capital was divested of half its advantages; the yeoman felt, that capital embarked in labour was its most profitable employment. The theorist advocate for small farms may here ask, with all these acknowledged advantages, why then these complaints of agricultural distress? and what is far more obvious to the understanding than complaint—why the repeated ruin to large farmers that we see every day, and how arises the constant advertisements for sale of rural mansions and estates? how, with all the improvements you have described as effected by the division of labour of land, comes it to pass that these difficulties are really in existence?

These questions would be, I think, best answered by asking another question, and it is this, if small small farming would have avoided all these evils, why is it at the present moment that the small occupiers (for there are many yet to be found) are even in greater difficulties than the extensive occupiers? That the small farmer adds in a greater degree to the difficulties of the community at large there can, I think, be no doubt, for it is proverbial a far more ex-

tensive proportion of labour is employed by the large than by the small holder of land, and *with a surplus population* the employment of labour forms no very trifling feature in the commonwealth.

If then both suffer, it must be from some *common cause*, and not from any peculiar arrangement of letting the land in large or small occupations. The prevailing custom in this respect in any particular soil or locality, or under peculiar circumstances, will be a self-acting test of the wisdom of the method; and I think we may safely assure ourselves of the fact, that when we find some inconsiderable portion of the community attempting to advance a doctrine, built only on the foundation of a visionary theory, in opposition to the results of practice, that we must not look with much hope of relief to such a quarter. In my last letter I wrote, labour gives a *rest* to the senses, and not labour gives a *rest* to the senses.—I am, Sir, your obedient and very humble servant,  
Sussex, April, 1836. AGRICULTOR.

## No. XXIV.

## TO THE EDITOR OF "THE FARMER'S MAGAZINE."

SIR,—That the general cry of distress which has been raised by the agriculturists must have a just foundation, cannot reasonably be doubted. Indeed, whoever considers the low prices of corn, more especially of wheat, which is lower than it has been for a generation, can hardly be of any other opinion. It is therefore, somewhat surprising that a contrary notion has been lately advanced in a popular journal, the *Morning Chronicle*.

In that paper of the 12th January, the prices of wheat at Mark Lane were quoted at from 32s to 43s per qr, being on the average 37s 6d, equal to 4s 8d per imperial bushel nearly. Yet in the same paper the very next day, appeared an article headed "Flourishing State of Agriculture." This is indeed a "flourish" which could hardly have been expected. It did not however originate with the *Morning Chronicle*, but was copied from an Edinburgh paper, the *Weekly Chronicle*. The writer of the article accounts for the cheapness of corn by saying it is simply owing to abundance (which indeed is true), and the abundance to the recent improvements in agriculture *here* (that is in Scotland, particularly the Lothians), and in *Ireland*; amongst which improvements he enumerates draining, and the use of rape-cake as a manure. These however, are rather improvements of the land than in modes of agriculture, especially the former, and require an outlay of capital. No doubt draining, where necessary, and the purchase of manure, will make land yield greater crops,—that is no new discovery; the question is, will they repay the expense at the present prices of corn? We are not to take this for granted—and the fact of increased production is no conclusive proof of it. This writer mentions other improvements which have of late been introduced, as the Chevalier barley, and thrashing by steam; and then in conclusion he indulges in a sneer at the lazy Lawrences of the South, who walk about with their hands in their pockets, and then complain of want; but, says he, it is from the South that the cry of agricultural distress has chiefly proceeded; that is, from those who resolutely and firmly adhere to the imperfect and expensive customs of their forefathers, and refuse to adopt the most self-evident improvements; who still continue to employ from three to five horses at one plough, and thresh their grain with a couple of sticks cut from the nearest plantation. "It is ridiculous," he adds, "to hear

such men complain of distress." He then alludes to the improvements in manufactures, by which various manufactured articles have been rendered cheaper to the consumer, at the same time that the manufacturers are doing well; whence he would have us conclude that the case is the same with the farmers who conduct their business properly.

Now, though it may be true at present that the manufacturing interest is flourishing, it is not very long since there were great complaints, in the cotton branch more especially, that the masters were doing very ill, and the workmen starving. The case was similar in the iron trade, the lead trade, the salt trade, the coal trade, shipping concerns, and other branches of business, which were all much depressed. It was the superabundant capital of the country, no longer wanted for war loans, seeking employment in every way, which produced an over-much supply, and led to a ruinous competition, and a general fall of prices beyond what the restriction of the currency could have occasioned, though this also had a great effect. The evil indeed cured itself, partly by diminished supply, partly by a more extended trade, but much capital was sunk and lost. It may, and probably will, be the same with agriculture; in the mean time, however, there must be much present suffering and loss.

It may be observed, further, on this writer's sentiment in regard to the neglect of agricultural improvements in the South, if by that term he means England in general, that though there may be some parts to which his remarks apply, there are large districts of this country cultivated in a manner which the boasted farming of Scotland does not surpass; and he offers no sufficient proof that the present prices of corn will pay the grower anything; for, as already observed, the mere fact of increased production does not of itself prove it.

If Scotch farming be so superior that wheat can be grown in the Lothians to pay the grower at 4s 8d or 5s per bushel, let an actual farmer of respectable character come forward in his proper person and say so, and we shall be bound to believe him; but let us not take the fact from the mere assumption of an anonymous writer in an Edinburgh paper. Some years ago, the writer of this was in company with a gentleman of Berwickshire, where the same husbandry prevails, and the land is of as good a quality as in the Lothians. He was a large occupier of land, partly as owner, partly as tenant. Corn was at that time very low, though not so low as at present, and in conversation on the subject, he observed that 7s to 8s per bushel for wheat would pay him very well, but 6s would not do; and if 6s would not do then, it is inconceivable that 5s will do now.

When the shipowners, some years ago, were loud in their complaints of distress, which they attributed to Mr. Huskisson's commercial arrangements, commonly called the reciprocity treaties, he in answer shewed by official documents that there had been a very considerable increase in British registered tonnage, and that the tonnage of foreign vessels trading to this country had not increased in the same proportion. The argument was good as far as it rested on the comparative amount of British and foreign tonnage, but it did not prove the non-existence of the distress. On the contrary, the increase of the tonnage of British vessels shewed the cause of that distress, and its remedy; it shewed that it was owing to excessive competition, and more between British shipowners themselves, than between them and foreigners. So, in like manner, over-production may be considered as the cause of the existing agricultural distress; which cannot be referred in any degree, as

in the case of the shipowners, to foreign competition, for the farming interest have had the home market entirely to themselves for about four years, and yet the price of corn has got lower and lower, though no foreign corn has come in, and the competition has been confined entirely to the farmers of the United Kingdom, including Canada, the supply from which colony is not considerable.

There is a clever article on this subject in the last number of the Edinburgh Review, in which the amazing increase of the productive powers of the soil is fully made out, and satisfactorily proved; whence it clearly appears that great as the increase of population has been of late years, the increase of production, contrary to Mr. Malthus's theory, has been still greater. But the Reviewer does not draw the natural conclusion that it has been too great. He takes rather the same view of the question as the writer in the Edinburgh paper before mentioned, only he is more moderate in his censure of English farming, and does not harshly pronounce that while such and such methods prevail, it is ridiculous to talk of distress.

It may be asked, if the farmers, as is alleged, have been going backwards for years, where did they get the capital for increased outlay upon the land? Perhaps the country bankers can answer the question. At all events it must have been got from some quarter and laid out upon the land; for it does not appear that improved modes of cultivation merely without increased expense, or even a succession of favourable seasons, are sufficient to account for the amazing increase and superabundance of the products of the soil, though they may, and doubtless have, occasioned it in part.

The same causes, whatever they may be, which have occasioned the depreciation here, have been in operation on the continent of Europe, where corn, low as it is in this country, is still lower; so that even in Holland, which has always been held up as an example of the good effects of a free trade in corn, the government have lately been obliged to pass a corn law, for the protection of Dutch agriculture, similar in principle to our English corn law.

It is surely desirable at this juncture that some notice should be taken of these attempts to persuade the public that the farmers are prospering, or, if they are not, that it is their own fault; and thus to deprive them even of sympathy in misfortune. How far these observations may be successful in combating the notions upon which these attempts are entirely founded, that increased production is of itself a proof of prosperity, you will judge. If you consider them deserving of attention, you will perhaps afford them a place in your magazine, and in that case some remarks on the means of relief from the existing pressure may be the subject of a future letter. T. F.

8th Feb. 1836.

No. XXV.

## THE DEVON HEIFER.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—Your having, in December last, presented your readers with a Plate of Mr. Quartly's celebrated Devon Heifer, *Curiosity*, induces me to forward you some further particulars respecting that beautiful creature, especially as I am now enabled to state, that her carcase was as extraordinarily and equally fat, as the figure of the living animal was perfect to the eye of the connoisseur.

Another reason for my sending this communication

is the unfortunately incorrect and detracting representation which your artist gave of his model,—the portrait conveying, I assure you, no idea whatever of the beauty of the original. You may be incredulous of this assertion; to convince you of its truth, let me lay before you the animal's proportions, as taken by Mr. Quartly, and given me by himself,—proportions for which Renton's Grazier's Ready Reckoner contains no calculated weight, so immense was her girth in comparison with her length and height. These were her dimensions:—Length, from the head to the extremity of the rump, 6 ft. 6 in.; height, at the top of the shoulder, 4 ft. 1½ in.; girth, 7 ft. 10 in. I hope this will convince you how inadequately the animal was represented in the Farmer's Magazine. I do not write this as blame; I am aware that errors cannot entirely be excluded, even from a work so ably conducted as your valuable periodical; but the wrong impression which your print must leave, I wish removed, and that Mr. Quartly may receive at your hands the justice of a correct representation.

The Heifer was slaughtered at Southmolton, by Messrs. Cole and Dunn, for the market of Saturday, the 2nd instant, and her carcase was declared by all observers, to be the fattest they ever saw exhibited in the neighbourhood. Were I to particularize one part of it for praise, I should do injustice to the remainder. Suffice it to say, then, and let the public judge, that with a height of only 4 ft. 1½ in. and a frame, when lean, of twenty-eight score, her weight was upwards of fifty score pounds.

Trusting you will insert this in your next publication, I have the honour, Sir, to be your most obedient servant,  
A DEVONIAN.

Southmolton, 15th April, 1836.

[The sketch of the heifer was taken by an artist at Exeter, who was represented as fully competent. We never saw the animal, and therefore had no opportunity of estimating its correctness.—ED. F. MAG.]

No. XXVI.

## TO THE EDITOR OF THE FARMER'S MAGAZINE.

Shropshire, April 13.

MR. EDITOR—I have no enmity to the Church, all I desire is as much good as can be obtained from it at a less public cost. It appears that the net average income of the Bishops is 5,930*l.*, but the Archbishop of Canterbury has an income of 32,000*l.*, according to the statement of Dr. Lushington, and the Bishop of London an income of 15,000*l.*, according to his own admission. In France, an Archbishop has only 1,041*l.* per annum, and a Bishop 625*l.* A Cardinal at Rome, next in dignity to the Pope, has between four and 500*l.* per annum, these latter sums are enough for Christian pastors. The great Founder of our religion said, “The birds of the air have nests, and the foxes have holes, but the Son of Man has not where to lay his head.”

The English Bishops have not, I suspect, included in their returns the annual value of their parks and palaces. The gross revenue of the Deans and Chapters is 350,861*l.* They were deemed superfluous in the times of Henry VIII. Cromwell said, a prebendary is neither a learner nor a teacher, but a good viander, who wastes his substance in good belly cheer. The net average

income of rectories and vicarages is 385*l.* per annum. If there were as many incumbents as benefices, and each received only this stipend, there would be no complaint that the clergy were overpaid; but the waste and injustice consist in the disproportion between the number of livings and the individuals among whom they are shared.

From authentic returns it appears that the number of incumbents in England and Wales, among whom the 10,498 benefices are divided, is under 7,000, so that some fortunate persons, with good connexions, have two, three, and four livings, besides dignities in cathedrals, preacher-ships, chaplainships, and other tit-bits of preferments, too numerous to mention.

CURATES.—From the income of these we may form an estimate of the expense really necessary for the maintenance of an efficient clergy. It is notorious that the curates, and poor clergy who are unable to bear the charge of curates, form nearly the whole of the working bees. There are 5,282, it seems, who have on an average a salary of 80*l.*, amounting for the whole to 424,796*l.*, so that for about double that sum an efficient clergy, adequate to the discharge of all practical offices of the national worship, may be obtained. The fairest and most equitable mode of proceeding would be for Government to appoint proper land valuers to go over all the church lands throughout the United Kingdom of England, Ireland, and Wales, and put a fair value upon it, according to other property of the same description, taking correct accounts of all the estimates, so as they can conscientiously take their oaths upon them if required; and let every pew-proprietor make a sacrifice, by giving up his pew, and paying a certain rent annually for it, and let the pew-rents go to the general fund for the support of the clergy; then abolish all tithes; and, at the same time, take off the malt tax, reduce the county rates, and all other local payments which press so heavily on the farmer. I think these things would go far to relieve us. Some say these could not be done; the government could not do without the malt tax. Let them reduce their expenses; begin at home, first, by doing away with unmerited pensions and sinecures. But another says, you would only confer a benefit upon the landlord, instead of the public. I would at the same time repeal the corn laws; thus, I think, the whole nation would reap the benefit, instead of one particular class. It would be madness to attempt to repeal the corn laws, while the farmer has to labour under all his present burdens, and those who assert otherwise are mere theorists instead of practical men. I would give no Bishop more than 1,000*l.* per annum, and do away with Deans, Chapters, and Prebendaries; and allow every parish priest, according to his family, not less than 150*l.* per annum, nor more than 300*l.* salary, with a suitable house, and small quantity of glebe sufficient for a cow and horse for private use. As I have no more room, and shall be trespassing upon you too much, if you think these few hints worthy of a place in your valuable Magazine, after your correction, you will be at liberty to insert them, and oblige your's, &c.  
A CONSTANT READER.

No. XXVII.

## TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—Having in a former letter shown, as is

hoped, sufficiently, in answer to the Edinburgh Weekly Chronicle, that increased production is not in itself a proof of a flourishing state of agriculture, but rather the chief cause of the distress which is generally acknowledged to exist, we proceed to consider what prospect there is of the evil being remedied, and what can be done towards its cure.

In the first place let the present corn law be steadily maintained; as being far preferable to a modification of it by the imposition of a fixed duty, in compliance with the ideas of some persons who argue that this would be better, both for the corn growers and the public. But the agriculturists should take care not to be cajoled by any such representations; for they may depend upon it, that when the prices of corn are low, both here and on the Continent, as they are at present, foreign corn would not be kept out by any fixed duty that could be thought of. And on the other hand, if prices in consequence of any very material failure of crops, were very high, indicating scarcity, and threatening famine, the duty could not be maintained; for the people must, at all events, be fed, and when the British and Irish farmers most wanted protection, they would be deprived of it inevitably. On this subject it was well observed by an intelligent corn merchant, Mr. Joseph Sanders of Liverpool, in his examination before a former parliamentary committee, that the measure would fail at both ends; and it is only fair if in a bad season the duty must be withdrawn, to encourage importation, that in a good season, when the home produce is plentiful, and prices low, the farmer should have the home market secured to himself by high or prohibitory duties. Corn may indeed be commercially considered as an article *sui generis*. It being so precarious, and dependent on seasons, so fluctuating in price, and at the same time of the first necessity, the object of the legislature should be to secure as far as possible a sufficient supply at all times, and as much steadiness of price as the vicissitudes of the seasons will permit. This is the principle of the present law; it encourages importation when prices are high, and represses it when they are low, thus tending towards a medium.

Some have thought that a fixed duty would answer the purpose better, but how they make this out is not clearly explained, nor is it very easy to discover.

The most considerable objection against the present law seems to be its rapid effect in reducing prices, so as to render importation unsafe to the merchant; for if corn has to be brought from any great distance, as even from Danzig the greatest corn port, it may happen that before it can arrive prices will be so much reduced in the home market, and the duty so much raised, that it cannot be sold but at a loss greatly aggravated by this double operation; and though the article may be warehoused, this is but a poor dependence, for we have seen that the home market may be in fact closed against it for years, and exportation can scarcely ever take place without loss. Whether a bounty on the exportation of foreign corn so circumstanced, when the duty had suddenly risen, so as to be in a manner prohibitory, might be allowed for a certain time, in order to facilitate the exportation, is a thing which perhaps deserves to be considered. This would be a protection to the importer, without injury to the home grower, or, indeed, to the public; for when the ports opened the duties received on the importation of corn would

more than pay any bounties that would be likely to be claimed on exportation, so that there would be only a return of a portion of the duties actually in hand. Be this as it may, let the landed interest stick to the present law, and leave the question of a bounty, under the circumstances before-mentioned, to the corn merchants, and the Government.

It has indeed been argued that our corn law has not hindered prices from falling ruinously low, and therefore that it has done the farmers no good. But that does not follow. For low as prices are they would have been still lower if there had been a free importation, as is evident from the comparative prices in England and on the Continent,\* and there cannot be a doubt that if corn could now come in free, or even at a moderate duty, it would be largely imported, and meet British corn in our already over-stocked markets. There is good reason then to say to the farmers of this United Kingdom—stick to the corn law, which was devised by one of the best informed statesmen of the age, the late Mr. Huskisson. His plan was somewhat modified indeed in its details by the influence of the Duke of Wellington, but not very materially; in its principle not at all. Under this law the home grower has at present the monopoly of the home market, and it does not appear how protection can be carried further, unless by a bounty on exportation of home grown corn which, though such a thing did exist formerly, would hardly be tolerated now.

Several plans of relief have been suggested, to most of which there are objections, as inefficient or impracticable, or in some view inadvisable; though, perhaps, some of them may be found practicable, and in a degree useful. The committees of the two houses of parliament now engaged in the investigation of this subject may be able to throw some new light upon it; though, as was observed with reference to it, by a noble lord well informed as to matters of trade,† a great deal cannot be expected from their labours.

But if over-production be the source of the evil, of which there seems no doubt, one remedy is obvious—namely to plough less—to grow no more corn than can be sold at a reasonable and remunerating price. Then the corn law would be found an adequate and sufficient protection.

It may be asked how is this to be done? A practical farmer would be best able to answer the question, and a speculative writer, in his closet, can only offer a suggestion or two. But suppose that on light lands, where the Norfolk husbandry prevails, a part were suffered to remain three years in grass instead of two; and on stronger soils the ancient fallow were resorted to, instead of the modern practice of growing potatoes or turnips before wheat, a very prevalent husbandry in the populous parts of the country, by these means less corn would be grown, and there would be no greater provision for cattle than before. So that corn would rise and cattle and their products milk butter and cheese, would not fall—and the expenses

\* Comparative prices of wheat, barley, and oats in England and France from the Morning Chronicle of 21st Jan. 1836.

	England.	France.	Difference.
Wheat per quarter	£2 4s	£1 13s	11s.
Barley do.	1 12s	0 15s 9d	16s 3d.
Oats do.	1 1s	0 14s 6d	6s 6d.

† Lord Ashburton.

of cultivation would be reduced. It might be difficult, or rather impossible, to get such a multifarious body as the farmers of the United Kingdom to agree upon such a plan, but a sense of their own interest will most probably induce many to adopt some plan of this kind; and necessity may compel many more to do the same. For with a diminished capital, and injured credit, they will not be able to provide the outlay necessary to keep up the same system of cultivation, and draw as much from the land as they have done. So that if produce does not persuade, necessity will oblige them to pursue a different course; that is to have less arable and more pasture land. Thus it is that the evil will cure itself in time, though it is to be feared not without much suffering to many deserving individuals, who will not be able to struggle through their difficulties. This is what has happened over and over again in the commercial and manufacturing departments, and is in fact the natural, though but occasional result of free competition. In other branches, it is true, relief has also been found in the increase of foreign trade, which in agriculture cannot be the case—for on the Continent of Europe, we have seen, the corn markets are lower than they are here; and if they were not, there are duties and prohibitions in the way in almost every country. In the United States of America the prices are higher than with us, and corn might be sent thither with advantage if there were no duty to prevent it; but there is a duty in that country also, on the importation of foreign corn, which amounts to a prohibition. In short the clamourers for a free trade in corn should be told, if they do not know it, or do not consider it, that it is a thing which scarcely exists. As long as these high prices continue in the United States, the British West India Colonies may be supplied from the brother country, instead of drawing their supplies from those States as they have been in the habit of doing; and this seems to be the only channel of exportation to which the British farmer can look for relief; and to that probably for no long period. But great hopes may be entertained from the flourishing state of trade and manufactures, and an increasing population, that the home consumption will be extended, and if this be met by a diminished supply, a more effectual relief may be afforded than any Parliamentary enactments that can be at all contemplated, can possibly give. Already indeed there seems to be a reaction; prices are looking up, and it may be hoped that the farmer has seen the worst of it. Still whatever can be done by parliament, consistently with justice to other classes of the community, and the general benefit, ought to be done.

Throughout these observations it is taken for granted that the agriculture of the country has a fair claim to protection. Those who maintain that the trade in corn should be altogether free, take a very partial view of the question. When the manufacturing, and the commercial interests generally, are protected by duties and regulations against foreign competition, surely the agricultural, which, including Ireland, is the most important interest of all, cannot in common justice be left without any. None but men blinded by avarice and selfishness, or bigots to a system, will say so. The political economists in parliament and elsewhere, when they advocate a free trade in corn, should be met with this argument. "Let it be so when every other trade is equally free: then, and not till then." This argument has lately been taken up by the friends of the agricultural inter-

est; and they will do well to enforce it on all needful occasions. There was a petition presented some time ago to parliament from Dundee in Scotland, a principal seat of the linen manufacture, in favour of a free importation of corn. This might have been met very properly on the part of the agricultural interest by a proposition from some county member for a repeal of the duty on foreign linens. It is, indeed, unanswerable.

Feb. 24, 1836.

T. F.

Comparison of foreign grain with the English market from the *Times* of 18th January. The mean or average of the prices of wheat of the first quality at Hamburg, Amsterdam, Antwerp, and Stettin is 28s 1d the quarter, and the mean price of wheat of the first quality in London, being 44s 6d the quarter, it follows that the mean prices in London is 58½ per cent higher than at the four above-mentioned places.

### UNION AGRICULTURAL SOCIETY'S ANNUAL SHOW OF STOCK, &c. AND SALE OF SHORT-HORNS.

This Great Agricultural Exhibition took place at Coldstream, on Tuesday the 5th April; and in respect to the quality of the stock brought forward, was certainly never exceeded by any similar exhibition in the kingdom, and in point of numbers the Highland Society has alone surpassed it. The place of exhibition was a large field of old pasture, conveniently situated at a short distance from Coldstream, granted for the purpose, by Mr. Wm. Bell, as acting for Sir John Marjoribanks; and proper arrangements having been made by the Stewards, assisted by the Secretary, for the reception of the stock, the short-horned bulls and other animals of that class were, by 11 o'clock, the hour appointed for the show-yard being opened to the public, all stationed and ready for the examination of the Judges. Forty bulls had been regularly entered, and 17 more came upon the ground, making together the extraordinary number of 57 pure short-horns, for the premiums, or for sale. The show of cows, queys, and steers, was much more limited; but most of them were very fine animals. At 12 o'clock the judges commenced their arduous task. This duty was undertaken by Mr. Wilson, Cockburn, Mr. Turnbull, Crooks, and Mr. Hogarth, Akeld; and most assiduously and ably performed. The award of the premiums delivered in by them to the Secretary was as follows, viz.

#### CLASS FIRST.—BULLS.

1. For the best Bull, to Mr. Cockburn, Sisterpath, Berwickshire, for his bull Favourite, No. 4 of the list, Fifteen Pounds.
2. For the second best ditto, to Mr. Bell, Linton, Roxburghshire, for his white bull, No. 14 of the list, Ten Pounds.
3. For the best Cow of any age, to Mr. Carnegie, Edrom Newton, Berwickshire, for his cow Duchess, No. 4 of the list, Five Pounds.
4. For the second best ditto, to Mr. Thompson, Pawson, Northumberland, for his Roan Cow, No. 1 of the list, Three Pounds.
5. For the best Quey, two years old, not awarded.
6. For the best ditto, one year old, to Mr. Hall, St. Helens, Berwickshire, Three Pounds.
7. For the two best Steers, three years old, to Mr. Taitt, of Langrigg, Three Pounds.

8. For the two best ditto, two years old, to Mr. Hall, St. Helens, Three Pounds.

The Judges beg to express their utmost satisfaction with the exhibition of the Short-horned Stock, particularly of Bulls, the number of superior animals exhibited at one time being quite unprecedented in the district.

#### CLASS SECOND.—HORSES.

Premium 1st and 2d. For the two best Draught Stallions as under.

No. 1. To Mr. Cossar, Dunse, for his Black Stallion, Sampson, Twenty Pounds.

No. 2. To Mr. George Aitchison, Abbey St. Bathans, for his Bay Stallion, Traveller, Twenty Pounds.

The Judges experienced great difficulty in deciding these premiums, the show of Draught Stallions being particularly good, both as to number and quality.

3. For the best Hunting or Riding like Colt or Filly, for premium offered by D. Robertson, Esq. of Ladykirk, to Mr. Sprott of Riddell, for his two year old Colt, by Mac Orville, No. 4 of the list, Ten Guineas.

#### CLASS THIRD.—SWINE.

Prem. 1. For the best Boar, no competition.

2. For the best Sow, to Mr. Curry, Cornhill, Two Pounds.

There was also a Sweepstakes of One Sovereign each, for the best Sow, between Mr. Curry and Mr. Fulton, Hatchetize, which was gained by Mr. Curry.

#### IMPLEMENTS OF HUSBANDRY.

To Mr. Veitch, Inchbonny, for his improved Turnip Machine (to pay expenses) One Pound.

To Mr. Robert Brown, Wooler, for his Turnip Sowing Machine (also to pay expenses) One Pound.

To Mr. Nisbit of Lambden, for an improved Turnip Cutter, one Pound.

At an early hour the show ground displayed a great attendance of noblemen and gentlemen, together with most of the eminent breeders and farmers of the surrounding districts; and also a numerous and very gratifying attendance of strangers, not only from some of the English counties, but also from the Lothians, and several of the northern counties of Scotland. There were likewise several gentlemen from the United States and from Canada. Amongst the number were—Duke of Buccleuch, Marquis of Lothian, Marquis of Tweeddale, Earl of Kintore, Mr. Swinton of Swinton, Mr. Wilson of Cumledge, Mr. Morrison of Auchentoul, Mr. Burn Callander, Mr. Sprott of Riddell, Mr. Grey of West Ord, Mr. Macbraire of Broadmeadows, Mr. Renton of Mordington, Mr. Wilkie of Foulden, Mr. Dickson of Belchester, Mr. Baillie yr. of Jerviswoode, Mr. Tod of Drygrange, Mr. Geddes, Morayshire, &c. &c.

**SHORT HORNS.**—That the public may duly appreciate the character of the Society's exhibitions, it may be proper to state, that after having established, by the exertions of many years, and by giving very high premiums, a capital breed of short-horned stock, &c. its premiums have for some years past been somewhat restricted in amount, yet kept sufficiently high to induce the principal breeders on both sides of the Border to bring forward their best stock at the annual exhibitions. In addition to which the Society has used every possible means to make its "Show-yard" a market, where those desirous of establishing the breed of short-horns elsewhere, might procure in the easiest and cheapest way, excellent stock of the pure breed;—and consequently,

at least half of the stock exhibited is generally for sale; and the attendance of strangers, as purchasers, is yearly becoming more and more numerous.

The result of this last mentioned branch of the exhibition, being of considerable public importance, ought to be particularly noticed. Among the many eminent breeders, Mr. Chrisp of Doddington, Northumberland, turned out the greatest number for sale. Of twelve yearling bulls, shewn by him, eight were disposed of on the ground, at from 20*l* to 30*l* each; (occasionally in such bargains a discount is allowed) and the rest were likely to be disposed of afterwards. Among the other gentlemen who exposed bulls for sale were Mr. Oliver of Blakelaw; Mr. Thomas Chrisp, Hawkhill; Mr. Laidler, St. Cuthberts; Mr. Jopling, Castlelaw; Mr. Turnbull, Crooks; Mr. Boag, Kilham, &c. &c., and so far as could be ascertained amidst the bustle of the day, about thirty bulls of different ages were sold. Yearlings at from 18*l* and 20*l*, to 30*l*, and those of other ages at from 20*l* to 40*l*. Many of the purchasers were from the northern counties of Scotland. It is a remarkable fact, in reference to those prices, that the Society gave, less than twenty years ago, one hundred pounds for the hire of a bull, the property of Mr. Mason of Chilton, for a season.

**COWS AND QUEYS.**—Comparatively few were shown; but several of them, particularly Mr. Carnegie's, and Mr. Thomson's, Pawson, were very superior animals. Few breeders, it is understood, will part with their best cows, on almost any terms, and it is said no sales were made.

**STEERS.**—The steers were much admired. Mr. Taitt's attracted great notice; and were sold at 30*l* a head—to be forwarded by one of the Leith or Lothian steamers to the London market!

**THE STALLIONS.**—Thirty of this class were regularly entered for the exhibition; many others, however, having been delayed on the road were brought upon the ground though not entered; and altogether there were upwards of forty horses. But between one and two o'clock, when they were ordered to be brought out, it unfortunately came on to rain so heavily as to create considerable difficulty in conducting this part of the show to a satisfactory close; and many of the spectators were forced to leave the ground and get under cover. The display of so many fine animals was extremely imposing.

The competition for the premium given by David Robertson, Esq. excited much interest. There were nine competitors; and there can be little doubt of a considerable increase of competition in succeeding years.

The thorough-bred stallion Contest, and the Cleveland horse Competitor, brought out by Mr. Miller of Sunlavs Mauns, (a description of horse said to be wanted) were much noticed.

Two short-horned cows, each with a calf, shewn by Mr. Jopling, were also much admired.

Of the Implements of Husbandry, an improved Turnip Cutter, exhibited by Mr. Nisbit of Lambden, appeared to give great satisfaction; however, as it did not arrive till near the end of the show, sufficient attention could not be paid to it. But as it is likely when fully known, to come into general use, another opportunity will be taken to give a full description of it.

The business of the exhibition closed shortly after three o'clock, having evidently given entire satisfaction to all who attended it.

## AGRICULTURAL DISTRESS.

SIR,—Those who are on the stretch to find an unnatural cause for what is called AGRICULTURAL DISTRESS, would wish to persuade themselves and others that there is something monstrous and unaccountable in it; yet, they will probably soon discover that it is produced by the same cause as every other kind of commercial distress, viz., the relative proportions between the means of production and the market of consumption; or, in other words, it is regulated on the laws of supply and demand, in the same way as every other description of goods which is brought into the market of consumption.

In the case in question, I should think it will be found out that the consumption of agricultural produce was never so great as at the present moment; but it will at the same time be discovered, that, notwithstanding the great increase in consumption, the increase of production is still in a greater proportion, making the supply greater than the demand.

The common question is, that while every person has good wages and is actively employed, how comes it that the price of grain remains distressingly low? The reply is, that there is more grain in the market than there are mouths to eat it.

It has been most unfortunately the opinion of our rulers and law givers, of all parties in politics, that when corn was low and there was a superabundance of population, which meant a population for which there was no work,—that inducements were to be held out to them to go into other countries as fast as possible,—“Emigrate, Emigrate,”—was the constant cry,—let us above all things encourage Emigration. These gentlemen never considered that every person who Emigrates carries a stomach with him, and that stomachs are the consumers of food. Every person thus sent abroad was a lost consumer to England, and a consumer produced to the country to which he was sent. The effect in taking one away to be given to a rival, is equal to multiplying by two,—and those countries to which we sent our emigrants, were benefited by every individual, while we lost in the same proportion. The result of this is that America has got rid of her agricultural distress, and she is now in a most flourishing agricultural condition; she has got our stomachs to digest her superfluous corn, while our corn remains on hand uneaten. Ah! but say the emigration committee, they were mere paupers who went abroad. This, however, will not serve their purpose,—for every nine out of ten who went abroad were people of some capital—artisans, whose very industry and ingenuity were the best capital of the country,—men who were tax-payers as well as corn-eaters, and who, in fact, were the pith and sinew of our industry. So long as this system is encouraged, agricultural distress must of necessity prevail.

Let any agriculturist ask himself the question,—who are our customers? His answer will immediately be—our great manufacturing population. His next question will be,—ought we to diminish that population? Common sense answers no,—increase it. How may it be increased? By making it to flourish. How may that be effected? By giving it an untaxed raw material, and by taking off other direct taxes which bear upon industry. What are these taxes? The tax on cotton, silk, and flax; the taxes on paper, soap, tea, and other necessaries. What would be the result of the taking off such taxes? The result would be that the working population who always endeavour to sell their labour in the best market, would remain at home, as they would be enabled to live with less money; they also get better wages, as the tax on the raw material is always a

tax on wages—the manufactured article being required to be produced as cheap for re-sale as it can be produced in other countries where the raw material is not taxed. Would this have the effect of stopping emigration? Undoubtedly. How would this affect agriculture? It would keep the stomachs at home to be employed in the profitable digestion of corn. Ah! but cry out the agriculturists—that increases pauperism. The reply is that it increases wealth in a threefold ratio, and pauperism, where there is prosperity, is a mere bugbear. In fact to encourage employment by making production cheap, that is by taking the taxes off the necessaries of life, is the very best antidote to pauperism.

There are, no doubt, various other reasons for corn having fallen below the price of production. First, steam navigation, which has brought large tracts of country, which formerly lay comparatively waste, in Ireland, Scotland, and England, into competition with old estates, and these have increased in value, while the ancient lands have perhaps fallen in proportion, making a kind of equalization. Secondly,—Rail-roads have produced a similar effect. Thirdly, improvement in cultivation has increased production to a great extent, even on old lands. In many cases where draining has been used, the increase in production is not less than 30 per cent. The bone manure, the facility of obtaining manure, the increase of green crop, have all greatly added to the increase of production. Had the increase of consumption been kept to go on in a parallel line with that of production, the prices would undoubtedly have kept pace with the supply. But while impolitic duties and taxes are permitted to remain on the raw material and on the necessaries of life, the tide of emigration will continue to flow to those countries where similar articles are not taxed.

Had we had one million more people in England manufacturing for other countries, in place of their having gone into other countries to manufacture there—to teach the natives to become our opponents, we should have had one million more consumers than we have; this would have made agriculture prosperous; we should also have had one million more tax-payers, which would have enabled Ministers to take off the very taxes which have goaded the artisans from their homes.

The answer will be—why, is not the manufactures now flourishing? What would you have? My reply is that such has been the case only since one half the duty was taken off the raw material, and since a considerable proportion of the taxes have been taken off the necessaries of life.

If our legislators will work out that principle, they will find that manufactures will improve yet more. This will relieve the agricultural pauperism, which has so long prevailed, and get the whole country into action. This system of itself, and nothing but this system can, by increasing an industrious population, dispel the cloud of agricultural distress, but by following a contrary policy, agricultural distress will still prevail.

There is one fact self-evident, and therefore undeniable, on which the whole question of agricultural prosperity depends, and that fact is the extent and comfort of the labouring and manufacturing population. By increasing the comforts and means of subsistence of that class, their prosperity will be promoted,—emigration stayed and population thereby rapidly increased. I think that it will not be denied that the increase of consumption is the first remedy of low prices, and surely that being obtained in agricultural produce, distress will gradually vanish. I should, in conclusion, with all deference, submit that

the first enquiry of our legislature should be that of making investigation how far they can safely remove taxes from the first necessities of life, and from that which is a tax upon labour—viz., all duties paid upon the raw material used in our manufactories.

A CUMBERLAND WEAVER.

THE TITHE COMMUTATION BILL.

TO THE EDITOR OF THE KENTISH OBSERVER.

SIR,—In perusing your valuable paper of Thursday last, the 7th instant, my attention was drawn to an extract from the *Farmers's Magazine* on the "Tithe Commutation Bill" now before parliament. Although I dissent from some of the observations which have been made by the writer, yet the good sense, and practical knowledge, which, for the most part, distinguish that publication, entitle it to much respect, and induces me to suppose that one of the statements has arisen rather from inadvertency than from want of information, and from not having gone into the details necessary to ascertain how far it is supported either by figures or by facts.

The statement to which I allude is as follows:—"The deduction of 25 per cent. from the usual demand of tithes is *purely nominal*, and will not affect the clergy, who have been accustomed to this outlay, and *even more*, in the expenses attendant on the collection of tithes." To this point I will confine myself in the present letter, and will endeavour to shew that, so far as regards the collection of rectorial tithes, the grounds upon which this estimate are made are untenable. Although not distinctly expressed, I presume that "the collection" is intended to embrace not only the cost of collecting, but all the subsequent expenses incident to the conversion of the tithes into money, and upon that supposition I will proceed to an examination of the different items of the account.

In the letter which I addressed to the Editor of the *Morning Herald*, on the 21st of March, and which he kindly inserted in his paper of the 26th of that month, I publicly offered "to enter into a contract with the rector of Murston, and the lay impropriators of Bapchild and Tonge, (three parishes immediately contiguous to my own,) not only to collect all the rectorial tithes due to them in their respective parishes, but to pay the threshers, they might think proper to employ, the whole expense of threshing, to find a barn or barns for the reception of their produce, and to carry out that produce, when threshed, to any mart, or private customer, (the distance not to exceed 4 miles,) for the straw and horsemeat only." I now renew this offer through the medium of your valuable paper (not with any hope of its being accepted), and will endeavour to shew that the collection of the rectorial tithes of a parish, so far from being a source of loss, is one of considerable profit to the party entitled to collect them. In illustration of this part of the subject, I will first take the article of wheat, and assume that the tithes of 100 acres of wheat are to be collected: and I will further suppose (for, during a series of years, I have grown, upon an average, more than that quantity myself,) that the produce of those 100 acres will amount, *communibus annis*, to 40 shocks per acre. On the 10 acres due to the tithe proprietor there will, on this calculation, be 400 shocks of wheat; in fertile years, these 400

shocks will produce 400 bushels of wheat, or 50 quarters, which, at 50s per quarter, will amount to 125*l*, and the straw arising from them, and the horsemeat produced by the operation of threshing, added to the amount of the wheat, will constitute the aggregate value of the gross produce.

With the view of ascertaining the weight of straw contained in 10 sheaves of wheat, taken indiscriminately from the stack (and provincially termed a shock), I directed my bailiff to have that quantity threshed, and immediately weighed. The weight was 84½lbs. Four hundred shocks of wheat, therefore, will produce 33,800lbs of straw, which reduced into London loads of 36 trusses, each truss weighing 36lbs, will amount to 26 loads, and 104lbs. The price of straw in the London markets fluctuating, for the most part, from 30s to 42s per load, would average 36s. At the present time, it might be stated at 34s. I will, therefore, take this price, and apply it in the first instance, to those districts which are within reach of the London markets, or of great towns, in which the price will be nearly the same.

£. s. d.		Per Contra.	£. s. d.	
26 loads of straw				
at 34s. ....	42 0 0	Carrying 10A.		
100 baskets of		of wheat with		
horsemeat, 8d. 3 6 8		8 horses in 4		
		waggons, at		
	£45 6 8	25s per team		
Ded. expenses 27 6 0		of 4 horses		
		and 2 men... 2 10 0		
Balance in favor		4 additional la-		
of collector £18 0 8		borers, at 5s. 1 0 0		
		Threshing 50qs		
		at 4s ..... 10 0 0		
		Binding 26 loads		
		of straw, at 1s 1 6 0		
		1 team 10 days in		
		carrying straw		
		to market... 10 0 0		
		Carrying out		
		50qs at 1s... 2 10 0		
				£27 6 0

I will next take the price of straw sold in the country (distance 4 miles) at 25s per load.

£. s. d.		Per Contra.
26 loads of straw		Expenses the same, except that in carrying out the straw, from the team being able to make two journeys per day, the labor will be completed in 5 days instead of 10, and £5 must, therefore, be deducted, which will leave the account £226s.
at 25s ....	32 10 0	
Horsemeat as before .....	3 6 8	
	£35 16 8	
Ded. expenses. 22 6 0		
Balance in favor of collector... 13 10 8		

Lastly, I will consider the straw and horsemeat when consumed on the premises, and will then estimate the price of the former at only 18s per load.

£. s. d.		Expenses the same as in the second case, except that as there will be no charge for binding, nor for carrying out the straw, a deduction of £6 6s must be made, which will leave the account £16.
26 loads of straw		
at 18s. ....	23 3 0	
Horsemeat as before .....	3 6 8	
	£26 14 8	
Deduct... 16 0 0		

Balance in favor of collector... £10 14 8



I will now endeavour to shew what is the real per centage on these estimates in the three several cases :

1st Case.	£.	s.	d.	
50qrs wheat at 50s...	125	0	0	
Straw and horsemeat	45	6	8	
	170	6	8	
25 per cent would be	42	11	8	
Actual expenses...	27	6	0	or something more than 16 per cent.
2nd Case.	£.	s.	d.	
Wheat.....	125	0	0	
Straw and horsemeat	35	16	0	
	160	16	0	
25 per cent would be	40	4	2	
Actual expenses...	22	6	0	or less than 14 per ct.
3d Case.	£.	s.	d.	
Wheat.....	125	0	0	
Straw and horsemeat	26	14	8	
	151	14	8	
25 per cent would be	37	18	8	
Expenses.....	16	0	0	or less than 11 per ct.

In the 2nd and 3d cases the value of the straw and horsemeat is much less than 25 per cent. of the gross produce, and yet leaves a large profit for the collector; in the 1st case, it is rather more than 25 per cent, and leaves a much larger profit.

In making these estimates, I have put the expenses at a higher rate than it costs me to collect the tithes arising from 100 acres of wheat, and have been desirous of fixing the value of the straw and horsemeat at a lower price than upon an average of seven years they will probably produce. If there be any errors, I can only say that they are not intentional on my part, and are open to correction; but, I feel confident, that the respective balances cannot be materially reduced; that in each case there will be a considerable profit; and that the assumption, that "in no case can tithes be collected at less than 25 per cent. of the value of the gross produce," is not only not supported by facts, but is utterly destitute of foundation.

I am, &c.

W. JOHN LUSHINGTON.

Rodmersham Lodge,  
Sittingbourne, April 11.

TITHES.

TO THE EDITOR OF THE EXETER AND PLYMOUTH GAZETTE.

"The simple and easy mode of settling the Tithes Question," which was published in a Thursday's contemporary, of the 24th ultimo, appears to me to be so deserving of circulation, that I shall be obliged to you for giving it a place in your widely ranging paper of this week.

"Fix a maximum of composition to be taken in lieu of tithes, at so much in the pound, of the value of the land calculated by the gross rent, or by the valuation of two competent judges; and in case of any difference of opinion that difference to be decided by a third.

"The composition to vary according to soil, circumstances and situations, say from 2s 6d to 3s 6d, in the pound for rectorial; from 15d to 21d for vicarial; and from 2s to 2s 6d for lay impropriate tithes.—Agreements renewable every four or seven years.

AN OLD TITHIE PAYER.

THE TITHIE COMMUTATION BILL.

SIR,—No topic can be more interesting to the farmer, at the present moment, than the Tithie Commutation Bill. I beg leave therefore to offer to your readers some remarks, which may tend to bring home to the mind of every farmer the means of ascertaining what will be the future effect of the bill in his own particular case.

The essential principles of the bill are to be found in the 29th clause, and to this clause all the other provisions of the bill are subordinate or subservient; it regulates the mode by which the future rent-charge is to be computed. From the gross amount of the annual produce of a farm, on an average of the last seven years, 25 or 40 per cent. is to be deducted; 25 per cent. if the tithie hitherto payable has been equal in value to the sum that would be the result of that abatement, and 40 per cent. if the sum hitherto paid has been inferior to the sum that would be the result of the abatement of 40 per cent. (On the amount that would result from either of these abatements or any intermediate abatement, the future annual rent-charge would be established.

In order to elucidate the effect of this clause, I will here offer to your readers a homely illustration of what would be the future workings of the bill, in regard to the farms around me. I took upon myself, for a time, the powers of a commissioner under the bill, and put the following questions to a neighbouring farmer, to which he gave me the answers that I report.

Q.—What is the quantity of land on your farm?

A.—130 acres.

Q.—What is your rent?

A.—£50 per annum.

Q.—What is the amount of your composition for tithie?

A.—£11 10s.

Q.—Do you, or does your rector, pay rates on the amount of your tithie?

The farmer could not give a decided answer to this question, but I have since ascertained that the rates are paid by the farmer, which would enhance the tithie to the amount of £14.

Q.—What number of acres of wheat do you grow annually on an average?

A.—About 25 acres.

Q.—What number of acres of oats?

A.—About 25 acres.

Q.—What quantity of barley, beans, peas, tares, clover, or other produce?

A.—(After some computation)—About 37 acres.

Q.—How do you account for the remaining acres of your farm?

A.—It is chiefly unproductive as to tithie, being fallow, old lay, hedge rows, or road ways, and a small part wood land.

My next interrogatories drew from him the following estimate of the gross annual value of his produce on an average of the last seven years.

25 acres of wheat.....	£250
25           oats.....	150
37           other produce.....	150

£550

I must here observe, that the amount of produce on the farm alluded to, (which farm presents generally a fair average of the rent, tithie, and produce, of the farms in this neighbourhood), may appear large in regard to rent, but it is land of heavy and expensive tillage, and of little natural fertility; on which a large produce is obtained only by a great outlay of capital, and not two-thirds of the estimated

amount of gross produce can come into the farmer's pocket. The amount of tithe on such lands has been kept down by restricting cultivation; tithe has been moderated, that cultivation might not be abandoned, and all tithe be lost; and enlarged and improved cultivation has been the result of moderated tithe. Now the bill treacherously and unjustly assumes this improved cultivation as the basis of the future rent-charge, without any regard to the value or rent of land.

I will now suppose the commissioner giving judgment in the case adduced. Assuming, probably, somewhat of the hypocrite, he will say to the farmer or the landlord—"The clergy, anxious to promote harmony and good will in their respective neighbourhoods, are generously disposed to abate even to the extent of 40 per cent. of their just claims. The act of Parliament, in that spirit of conciliation, releases to you 40 per cent. of your produce tithe free; deducting then this 40 per cent. from £550, the amount of your gross produce, the remainder will be £330; and your settled tithe to be commuted into a rent-charge will be £33, payable half yearly." Thus the farm that has hitherto paid about £14 for tithe, would be, by the award of the commissioner, liable to an annual rent-charge of £33; variable, however, in the manner which shall be presently explained.

Clause 44 provides for the conversion of the money payment, or rent-charge, which is to be computed, in the manner I have mentioned, into a corn rent, of which the money payment would be annually variable according to the price of corn, in the following manner. The award or written contract for the commutation of tithe into a corn rent is to specify the quantity of wheat, barley, and oats, which the sum decided on by the commissioner would have purchased, on an average of the seven years previous to the contract,—had such sum been expended, one-third in the purchase of wheat, one-third in the purchase of oats, and one-third in the purchase of barley; and the sum thereafter annually payable would be such as, according to the annual statement of the comptroller of corn returns, would purchase the quantity of wheat, oats, and barley, specified in the contract. There is this palpable grievance and injustice in the proposed variation of the rent-charge. In a bad season the price of corn might be doubled; but the benefit of increased price would belong rather to the foreign merchant than to the home grower; because, in bad seasons, the farmer is generally compelled to carry his corn to an early and unfavourable market, and he would be liable, if a party to the award of the commissioners, to an increased payment, under circumstances when he could least afford it.

Clause 45 enacts that the tenant be empowered to deduct from his rent the amount of each half-yearly rent-charge, which he will be compelled to pay in preference to all other claims upon his land.

How then is the landlord to be indemnified? It is a curious circumstance that the solution of this important question is no where indicated by any marginal note on the bill, but is to be found, however, in the 17th clause. The landlord, in requital for the rent-charge, which is to be deducted from his rent, is to be placed in the situation of the original tithe owner, and is to possess all the powers of the original tithe owner for enforcing from his tenant the render of tithe in kind, or of any composition in lieu thereof. The landlord in fact is to change places with the tithe owner, and to become himself an odious tithe collector. The bill should rather be called a commutation of tithe owner, than a commutation of tithe. Hitherto, harmony and good-will have gene-

rally prevailed between the landlord and the tenant—contention and discord between the tenant and the clergy; hereafter landlord, clergy, and tenant will be embroiled in mutual strife and animosities.

There is yet one other clause in the bill that I will notice; it is the 47th clause. Should the half-yearly payment of the rent-charge, to be awarded by the bill, be forty days in arrear, even though it may not have been legally demanded, the owner of the rent-charge, lay or ecclesiastic, may enter upon the lands assigned for the payment—eject both landlord and tenant—and take the land to farm on his own account, till his demand and all his expenses be satisfied.

The bill has evidently been framed under the auspices of the clergy, and for their benefit, it would add 50 or 100 per cent. to their revenues. The law charges that would attend the awards of the commissioners would be enormous; litigation would be interminable; even dead men under the provisions of the bill are to continue parties to suits at law (see clause 36); and that the clergy may not be discouraged, they are allowed by the bill (see clause 42), to borrow money for law expenses, and charge their benefices for twenty years with the repayment. The farmer has long and earnestly desired an equitable commutation of tithe that his industry might be free; now, far better will it be for him to bear yet for a while the wrongs he suffers, than that the present bill should pass into a law.

I am, Sir, your faithful and obedient servant,  
WILLIAM MARTER.

*Shelly's farm, Knockholt.*

The best answer to those unprincipled scribes who assuming to be of *no party*, embrace every opportunity of calumniating the present Ministers by representing them as hostile to the Agricultural interest is furnished by the conduct of Mr. Poulett Thompson in the House of Commons on Thursday night last. Mr. Robinson moved

"For the appointment of a Select Committee to inquire into the regulations and restrictions under which foreign corn might be admitted to entry, for the purpose of being manufactured into flour and re-exported without prejudice to the public revenue or to the agricultural interests."

Mr. Thompson said that he had no objection to the foreign corn in the country being ground *in bond*, provided *all the produce of the corn so ground were re-exported*. This did not meet the object of Mr. Robinson, who wished that the *flour only* should be exported, and he accordingly divided the House upon the motion. We imagine there will scarcely be any one found possessed of hardihood enough to say that Mr. P. Thomson did not regard the interests of the Agriculturists in this matter. We doubt not this fact will remain unnoticed by this *disinterested* friend of the Agricultural interest, as did that part of the account of the death of Lord Sondes, which marked his magnificent liberality in allowing a year's rent to his tenantry.—*Mark Lane Express*.

We are assured on the authority of persons who profess to know the working of the New Poor Law in Suffolk, that "150 out of 280,000 per annum will be saved, and the deserving poor be far better off.—*Sussex Advertiser*."

## ISLINGTON MARKET.

FROM THE MARK LANE EXPRESS, OF MONDAY APRIL 18.

The opening of the New Market at Islington this day has, during the past week, formed a leading topic of discussion amongst those whose business has hitherto taken them to Smithfield. As there may be some of our readers who are unacquainted with the magnificence of the undertaking in which Mr. Perkins has embarked with so much public spirit, we briefly state for their information, that the New Islington Market covers 15 acres of ground, whilst the area of Smithfield is only  $4\frac{1}{2}$  acres, exclusive of a small addition which has recently been made to it. The capital already expended upon the New Market amounts to £100,000. It is capable of accommodating with ease and comfort, both to the animals themselves, and the persons attending the Market, 7,000 Beasts, 40,000 Sheep, 1,000 Pigs, and 500 calves, and is amply supplied with water from wells sunk on the premises, and worked by a windmill. It is really surprising that opposed as Mr. Perkins has been by the wealth and influence of the Corporation of the City of London he should have so far succeeded as to have carried his plan into execution almost single-handed; he has, however, received most invaluable assistance both in and out of the House of Commons from Mr. Handley, the Member for Lincolnshire, a circumstance which will afford ample evidence to the agriculturists that there is nothing in the scheme prejudicial to *their* interests. To those who have attended Smithfield on a market-day no argument is requisite to prove the necessity of the removal of the cattle market to a more extended site. The cruelty inflicted on the animals in driving and huddling them together in masses, and the fever excited, and consequent injury to the meat, from want of water, can only be appreciated by those who have been eye-witnesses of what takes place during the night preceding, and upon the market-day. It may meet the views of some parties, but it cannot be to the advantage of the grazier that his beasts should, by their lank and worried aspect be deteriorated as far as appearance goes to the extent of 30s. or 40s. per head. To those who have not had the opportunity of witnessing the state of Smithfield on a full market-day, the best evidence of the necessity of removing it to a more suitable spot, will be found in the report of a deputation from the Common Council of the City of London, appointed to confer with the Lords of the Privy Council for the Board of Trade, to the Select Committee for letting the City lands in 1809. After considerable discussion between their Lordships and the deputation respecting the enlargement of Smithfield market, their Lordships distinctly stated—

“That such enlargement would by no means afford the accommodation required, particularly in a place so much intersected with Public Streets and Ways, through which a very considerable part of the Commercial Traffic of the Metropolis necessarily passed daily with Carts, Drays, and other Carriages, which occasion a great injury to the Cattle in the present Market-Place, AND CANNOT BE PREVENTED BY ANY ENLARGEMENT THEREOF, and much less provide for such progressive increase of the Business of the Market, as might reasonably be

expected; and therefore it appeared to them THAT THE REMOVAL OF THE MARKET was necessary, to the nearest and most convenient situation at which not less than 12 Acres of uninterrupted space could be obtained.”

If such were the opinions of their lordships in 1809 how much more necessary must the removal be in 1836, when the quantity of cattle sold in Smithfield Market has so enormously increased. At that period, “12 acres of uninterrupted space” were deemed requisite; Mr. Perkins has now provided 15 acres. There are two points now urged against the proprietor of the Islington Market. First, that he has been guilty of a breach of faith, in promising not to interfere with Smithfield if he were permitted to open his Market at Islington; and Secondly, that in refusing to suffer the same individuals to act as Bankers at his Market and at Smithfield, he seeks to establish a monopoly for his own benefit. With respect to the first charge, we apprehend it is by no means generally known that the pledge alluded to was given before the *compensation clause* was introduced. That if the Bill had passed in its original state Mr. Perkins would have rigidly adhered to his promise, but that when his opponents succeeded in altering the Bill in a way which operated prejudicially to him, he considered himself, as every other man would, absolved from his promise. In regard to the second charge having reference to the Bankers it is well known that they have been the most active opponents of the New Market. A numerous body of graziers throughout the country have pledged themselves to give their support to those individuals only who will encourage the Islington Market. Would it be wise? would it be honest in Mr. Perkins to afford the least indulgence to those individuals who, although they might perform the mechanical duties devolving upon them at the Islington Market with correctness, yet would by their acts and expressions in other respects do all in their power to thwart the wishes of himself and his friends? We feel persuaded that Mr. Perkins will succeed to the utmost extent of his wishes, and the New Market will long stand a monument of his public spirit. We desire that he should be amply repaid for the capital he has embarked, and the risk he has run. But if we could discover the slightest disposition to avail himself of the voice of public opinion loudly expressed in favour of his plan, for the purpose of establishing a monopoly for his own advantage, we would be the first to point out the deception, and to resist the attempt.

Bone-dust strewed lightly over the rows where peas, beans, or any other seeds are sown, will insure a finer and more healthy plant than any other kind of manure. It should not be buried in the soil; its virtue is carried downward by the moisture from the land, which retains its productive quality for two or three seasons. In Yorkshire, the farmers have availed themselves of it to a very great extent, and find it cheaper even for wheat and barley crops, than the best compost. It is not unfrequent there to see the name of the proprietor of an estate written on his lawn with luxuriant grass, produced only by drilling fine bone dust in the track of the letters, which may be delineated with chalk or the small end of a walk-sticking.—*Correspondent of the Suffolk Chronicle.*

## ETIQUETTE OF THE FIELD.

At the request of a correspondent, we take up the pen to give our opinion upon a subject, which we nevertheless approach with diffidence; not that it requires more than ordinary preception or moderate powers of description, not that sophistry, syllogism, or abstruse logical deduction, is requisite in its illustrative elucidation; but, as it has never yet been placed before the eyes of the Sporting World through the medium of the beautiful science of writing, and consequently not received the unqualified or indisputable sanction of statutory enactment, old sportsmen as we are, we feel some degree of hesitation in assuming the office of Arbitrator *Elegantiarum* to our generous and highly-esteemed fraternity. However, as our vocabulary will, in all human probability, be incomplete, and therefore susceptible of improvement, we earnestly solicit the corrective and emendatory communications of those who have more successfully studied the subject, and are consequently better calculated to illustrate it.

Of the various branches of Field Sports, hunting, strictly so called, or following the hounds, being infinitely more important than any other, is entitled to priority of consideration. This diversion is not only conducted with spirit and elegance, but with a degree of liberality unknown to every other ramification of the chase: as a proof of which it may be said to commence with making known the fixtures, through the medium of the public prints, in order that those who are anxious to enjoy it may be apprised in due time of the places where the hounds meet, and where the field are therefore expected to assemble.

If the term *festival* cannot be correctly applied to the fixture or meeting, it must be regarded as an assemblage where the sparkling joy of eager anticipation animates every countenance; nor indeed is this pleasing excitement confined to the sportsmen, since their gallant steeds never fail to express their pleasingly impatient expectations in a manner too impressively palpable to be for one moment mistaken; whilst the sagacious well taught pack evince their lively joy by indications equally intelligible.

Hacks are exchanged for hunters; when, after the lapse of a few minutes, the word is given, and the hounds rush into cover; while the field place themselves in such a manner as, if possible, to induce the fox to break away over the most eligible part of the country. All is still and breathless expectation, except perhaps the pawing of an impatient steed, the half playful rearing of another, till the well-recognized signal is borne on the breeze, and "Hark to Ringwood! Have at him there!" thrills through the nerves, impressing a sensation which no form of words can imagine to the mind:—"Tally ho! Tally ho! There he goes!" The huntsman goes away with the leading hounds, but not a sportsman ought to stir till the hounds are

fairly away, when each should take his place, and keep it. However, it not unfrequently happens that, at this critical moment, the hurly-burly riders, and ill-mounted horsemen, render themselves conspicuous by what may be expressively enough termed crossing and jostling, in which the genuine sportsman runs the risk of having his horse or himself injured, and in which the uncouth, ill-mannered, impudent clowns to which I have just alluded, frequently get unhorsed. Apropos: some few years have rolled over heads, since we met Lord Anson's (now Earl of Lichfield) hounds in Leicestershire (at Kirby): a fox was found in a gorse cover at a short distance, which went away in gallant style in face of the whole field. The hurly-burly riders (consisting, as is generally the case, of the lower and illiterate grades of yeomanry, butchers, &c.,) could not be restrained: so that as the hounds left the cover they were thrown into confusion by the random galloping of these semi-barbarians. However, at the first fence, three of these blustering bull-headed fellows were laid sprawling, one of whom in coming to the ground, pitched so completely on his head, his bare head, that we fully expected he would rise no more: but, *n'importe*, he gathered himself up, shook his dirty locks, looked round him, but did not attempt to remonst; that genuine sportsman and accomplished gentleman, Sir J. L. Kaye, cannot have forgotten the circumstance. If the scent be good, these *English-Kentuckians* are distanced in a few minutes; but, if unfortunately, the hounds are brought to cool hunting, they become troublesome—very troublesome.

In saying that every sportsman, as soon as the hounds were fairly away, should take his place and keep it, we do not wish it to be understood, that the field are to go abreast "like the horses of the sun," as Beckford would say, but that they should not cross each other: there are always a few choice spirits who uniformly take the lead, and a good sportsman need think it no disgrace to follow in the wake of such accomplished workmen as the worthy Baronet already mentioned, Mr. Little Gilmour, Mr. John White, Lord Delamere, Mr. James Tomkinson, the veteran Stephen Denston, and some scores of others whom we could mention.

Gates need not *always* be jumped; on the contrary, it will frequently happen that a number of sportsmen approach a gate, when, from picking a cold scent, a cheek, or other circumstances, it may be conveniently opened. It should be passed one at a time, and held by one till the next in succession has hold of it: thus, it is passed as pleasantly as possible. To the credit of fox-hunters, we never witnessed a breach of this highly-laudable decorum or etiquette, except by an ill-tempered Noble Earl, whom it is not necessary to designate more intelligibly. The last time we saw the late and much lamented Sir Harry Goodricke in the field, we observed him very good naturedly return to re-open a gate for

a veteran, whose snow-white locks and withered frame seemed to indicate an unusual length of years, but whose expressive eye brightened with pleasure at this mark of attention from the forwardest of the flock: the aged sportsman did not appear in the livery of the field (scarlet); he was evidently a yeoman of the good old legitimate sort. When it so happens that the hurly-burly crew to whom we have already alluded, approach a gate, a circumstance of frequent occurrence in going from one cover to another, confusion seldom fails to ensue. We have a *crooked*, but very impressive, remembrance of a circumstance of this description; being out in Charnwood Forest with Mr. Osbaldeston's hounds, and picking a cold scent from the base of Whittle Hill towards Ulscroft Woods, a gate was driven towards us, by one of these pests to the hunting field, with considerable violence; we received it on our right hand, the force principally operating on the thumb; we never felt more acute pain than what resulted from this very unpleasant and unwelcome contact, which lasted for some minutes, nor have we been able to straighten our wounded thumb since.

The hounds should never be pressed upon by the horsemen:—if indeed it be a brilliant scent, there is nothing to be apprehended on this account with modern fox-hounds:—and, in following another person over a fence, an interval of time should be allowed to elapse sufficient to ascertain that no accident has happened to your predecessor, but that he has got fairly over it and is out of the way.

Never meet hounds in the face, if it be possible to avoid it; but, should a contact with them be found unavoidable (in a lane, for instance) turn your horse's head the contrary way till they have passed.

Should a sportsman near you become unhorsed, etiquette (and humanity also) requires that you should ascertain if he be hurt or not: in the first case, you must consider yourself bound to render him all the assistance in your power; in the second, you may leave him to shift for himself. You are not bound, by etiquette, to catch his horse for him, should the animal have galloped off; but, if you can conveniently get hold of the animal, hitch the bridle upon the first gatepost you meet with, if you do not choose to wait for the arrival of the rider (the hounds going best pace); it sometimes happens under such circumstances that persons are working in the field, or a countryman may be at hand, to whom the loose nag can be very conveniently handed over.

It will sometimes happen that several sportsmen come to an obstacle that renders dismounting advisable or perhaps indispensable, where turning the horse over is found requisite: the matter becomes easy of accomplishment by catching for each other.

Formerly, on the death of the fox, a scramble took place for the brush; however, at the present day, no *gentleman* ever thinks of dis-

mounting for such a purpose. It is the business of the huntsman and his assistant whips, to deprive the fox of the appendage in question, as well as to prepare his carcase for the honourable sepulchre that awaits him. Should any gentleman be anxious for the brush, he should make known his wishes to the huntsman, who will hand it to him—and of course expect a gratuity in return.

We are not aware of a greater breach of field etiquette that riding before or amongst the hounds under any circumstances. Nothing can be more vexatious to a genuine sportsman, or more trying to the temper of a huntsman. It is sufficient to drive a huntsman mad; and, if, under such circumstances, he resorts to language more *impassioned*, or more *impressively boisterous*, than usual, it ought not to give the slightest offence to those to whom it is addressed. Sportsmen should get out of the way of the huntsman on all occasions.

Like hunting, shooting is a social amusement; which, however, does not admit of that aggregate number of companions which gives a superior degree of animation to the cover side and the impetuous field. It is true, Battu shooting may include half a dozen marksmen; but we could never persuade ourselves to consider it in the light of legitimate diversion; it is an exotic which cannot be rendered indigenous in the British Isles; it has been on the wane for some years, and we heartily wish it was altogether returned to the mongrel sportsmen of the Continent from whom it was very foolishly borrowed. But, as there is something like etiquette in this barbarous wholesale-slaughter system, we must waste a dip of the pen on the subject. In those covers where battu shooting takes place, there are paths formed, along which the sportsmen can walk very conveniently, while others move forward on the outsides. To render this diversion—(if indeed *diversion* it can be called!) as free from danger as possible, the sportsmen should move forward parallel with each other; in fact, whether moving or when they become stationary, this parallel position should be observed, the infringement of which must be regarded as a breach of etiquette. If the cover be so narrow that interior walks are rendered unnecessary, the party is divided, and should be careful to proceed parallel with each other, as in the former case.

By a very easy movement or transition, we are brought to hedge-row shooting, where the parallel movement becomes indispensable to the safety of the sportsmen, as may be very obviously perceived. We have enjoyed excellent diversion in hedge-row shooting at both cocks and peasants, and it has happened more than once that our own gun and that of our companion have been discharged so precisely at the same moment that we have each been unconscious of the circumstance till an oral explanation has taken place, if the smoke from the opposite gun had not already placed the matter beyond all doubt.

If we except battus, shooting does not admit of more than two sportsmen in what may be strictly called a *companionship*; and, as in the preceding case, they should proceed abreast of each other. On the springing of a covey (or the rising of a brood, for in partridge and grouse shooting the same rules of etiquette are applicable;) each shooter selects a bird on his own side, in order to avoid cross-firing or dispute as to who brought down the bird, in case only one falls. An illustrative apostrophe will not be deemed out of place. Two friends of the writer, (who are still living) Mr. B—y and Mr. S—w, the former a fair shot, the latter, having acquired the custom of shutting both eyes and jerking his head when he pulled the trigger, was never of course certain of killing a bird; however, when shooting in company, he seldom failed to claim the bird. These two went out together in the early part of the month of September; the dogs drew and stood; the covey got up; bang went the gun of Mr. S—w, and, as chance would have it, a brace of birds fell; this gentleman, whose eyes had been firmly closed during the operation, opened them time enough to see a bird fall from the gun of Mr. B—y, which he immediately claimed: "Then, (said the latter gentleman) these two must be mine," as he advanced and picked up the birds in question. On another occasion, when the writer happened to be shooting in company with Mr. S—w, a cock pheasant accidentally rose before him; and, as it presented as fine a mark as possible, it was easily brought down. It was immediately claimed by our worthy friend, Mr. S—w, though the writer was very well aware his gun had missed fire, which, on investigation, Mr. S—w was compelled to admit.

On the springing of a covey, select the bird on your own side, as we have already observed; but it may sometimes happen, on the rising of a single bird, for instance, that both sportsmen may fire without being guilty of a breach of etiquette. Whatever game may be killed in the course of the day, it should be equally divided between the parties.

If one party of shooters come in contact with another, they should ascertain each other's intentions as to the future beat or range, and on no account vexatiously *cross or jostle*, as a jockey would express it. If a party be found in possession of a certain tract of moor or country, the second party should immediately retire or withdraw.

Above all, let sportsmen keep steadily in view, the maxim, never to let others surpass them in politeness.

Coursing has been a favourite amusement from the earliest periods to the present time; and has of late years been classified and improved to the greatest extent perhaps of which it is susceptible. We consider it a gross breach of etiquette to slip more than a couple of greyhounds at the same hare, and yet we have not very unfrequently seen it practised, —in a part of the country, however, where,

owing to the frequency of dry pits fringed with brushwood, and similar blinking places, two dogs were scarcely a fair match for a hare. Yet more than a couple of greyhounds ought never to be slipped.

There are various coursing clubs in different parts of the country, the rules and regulations of which may vary according to circumstances; but generally speaking, if persons be appointed to *See-ho!* the game, the field should allow them to be a reasonable distance in advance. He who slips the dogs should also be in advance of the field, but not so forward as the finders. The field should move forward abreast; and, if there happen to be no special finders appointed, no hare can be thus missed. In some parts of the country, horses are used in coursing, while in the marshy parts of it (where the most satisfactory diversion is generally obtained,) they are precluded by the nature of the ground.

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## TITHE BILL.

TO THE EDITOR OF THE COURIER.

SIR,—The tithe bill of the best Ministers England ever had is most shameful. *It must not* pass in its present shape, or it will punish all the best farmers in England for being industrious. This I do know, that notwithstanding the low price of produce the last seven years, that farming is improved more than it did in half a century before; the fields are hollow indeed with drains, and manure at Liverpool is 9s per ton at this moment. My father never paid any more, though he sold his wheat at a guinea a bushel: and is it right that the parsons, who neither labour nor toil, should enjoy the fruits of all this industry? Freely they have received and freely they ought to give; even the lay proprietors bought their tithes for almost nothing. I advise the Ministers to drop the bill this session; the parsons are delighted with it—this I know to be a fact. In the mean time let the farmers in every part of the kingdom tell all they know to the reform members. I shall tell my complaints to Mr. Ewart, of Liverpool, and Mr. Thorneley, of Wolverhampton; I will make them completely master of the subject; this is the way we must do. Once more, then, I beg of our good Ministers not to attempt to pass the bill this session.

I am, yours,

A FARMER OF WEST DERBY.

6th April, 1836.

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Our Breconshire correspondent says that the destruction of sheep and lambs on all the hilly farms is unabated—he mentions several farmers who have lost from 200 to 300 each! And he adds, that of the lambs not one in seven will escape. There had been snow and sleet for five days successively, and it was still lying deep on the high grounds. Not a grain of oats had been sown, and only part of a field here and there ploughed. He states that in the spring of 1786, (50 years ago,) there was a similar season, when the first oats in his neighbourhood were sown on the 12th April. We are sorry to confirm the above report from accounts received from all the adjoining districts. Many thousand sheep have perished in the upper parishes of the three counties which meet at Ramny, and more than three-fourths of the mountain lambs. One correspondent says that he saw 14 sheep dead in one small field; and the Coedcae, the Banwau, and the Wauw are strewn with them. The same season which is destructive to sheep, kills the hares; and many of these are also found dead.—*Welshman.*

## HORSEMANSHIP.

## ROAD-RIDING.

In giving instruction for the accomplishment of any art or science, what may be called (for want of a better expression) the precision of systematic description becomes absolutely requisite, in order to avoid that confusion which could scarcely fail to arise from any other method. But, although such a plan appeared the best calculated to answer the object in view, it is highly proper, in this place, to observe, that, after the pupil has studied all the foregoing lessons, and comes to apply them to practice on the road, or in the ordinary occurrences of life, it is not expected, that, under every circumstance, he should rigidly adopt the formality or stiffness of the school, which however advisable throughout the probationary period, should become ease and gracefulness thereafter. The lessons are the rudiments and essential principles, which, in after practice, are to constitute the system, but characterised by an easy elegance which shall, at the same time give confidence and security to the rider.

Those who are employed by horse-dealers to show horses are hastily thought, at least by those who are ignorant of the true and beautiful art of horsemanship, to ride well. These are mostly persons who have, from early life, been about horses, and thus acquire confidence, while constant practise gives them a firm seat. Their object is to show the horse, as they think, to the best advantage, which, with them, constitutes the very acmé of perfection in riding. For this purpose, they sit as stiff as possible, divide the reins, place their hands low, keep the horse's nose down, and drive him forward, with the spurs, as fast as possible. This method answers the dealer's purpose, since many of the horses, thus exhibited, are lame or unsound in some respects, and by this means their imperfections are much less discernible.

In the previous pages I have had occasion to notice grooms, and I must here again observe, that these persons, from constant practice, ought to ride well, and most of them do acquire a firm steady seat, while very few seem to understand the skilful operation of the hands; and hence may be perceived the reason of the difficulty they experience in the management of an unruly horse: further, many of them handle a quiet horse so roughly as to render him restless and impatient, which often ends in a contest. Many high-bred, well-fed horses manifest a spirit consonant with their breeding and condition; and though they may be checked by a harsh severe hand, are nevertheless irritated by it. The rider becomes irritated also by the impatience to which he has provoked the horse—he therefore applies the spurs, the horse becomes more violent and ungovernable, and a contest is the result, which does not always end in the defeat of the horse; and indeed, end how it may, the horse's temper is soured by the circumstance, and, if violent means be continued, the horse is ruined. The mild, but effective, operation of the hand should render the horse obedient, and it should, at the same time, be characterized by ease, delicacy, and elegance. Under such circumstances, if the horse has been irritated, his temper cools by degrees; and there are few horses so vio-

lent, hot, and impatient, that will not be restrained by these means.

Keeping in mind and acting upon the principles of horsemanship already laid down, the rider on the road should fall into an easy elegant flexibility, agreeable alike to himself and to the animal that carries him, but by no means to suffer inattentive or awkward habits to creep upon him; such as the back to become round, the shoulders to move up and down, the hand to describe a sort of see-saw, the legs to vibrate, &c., circumstances which may be witnessed every day. Let the rider unite system with ease and elegance.

To those who merely walk the horse on the road no observation is necessary here after what has been already stated; but as there are few but wish to proceed more speedily, the walk can be easily extended to the trot, which is uncomfortable and rough till the horse trots out sufficiently to enable the rider to rise. The action of the horse will so palpably point out to the rider the precise moment to rise in the saddle, that it is quite unnecessary to describe it. The faster the horse goes in the trot, the pleasanter the pace. Considerable difference, however, will be found in the action of horses:—some have a short quick step; others a long step, and consequently not so quick: the former are more pleasant to ride; yet the latter go well enough, if their action be light. But when a horse goes with a long, lounging, sluggish motion, as may be generally observed in carriage horses, they make unpleasant hackneys. Hence it may easily be perceived, that gig horses, &c., are very often but indifferent for the saddle.

In the trot, the action of the horse, assisted by a little effort of your own, should raise you from the saddle; and in this pace, your body should incline a little forward, which is the most graceful, the most easy, and the safest position.

The foot with which the horse leads is the one to which you are to rise; in fact, you cannot rise to the other; but as the action will be found more pleasant when the horse leads with the off foot, so should he lead with the near foot, you can easily rein him in; and, again, in pressing him forward, draw the left rein a little tighter than the other, at the same time pressing your left leg against the horse's side, a little behind the girth, and he will not fail to lead with the off leg. The rise and return of the body should be regular, easy, smooth, and even. In trotting, considerable pressure is made on the stirrup; but the knee should be firmly pressed, since the safety of the rider, in case of accident, depends mainly upon it. Should the horse happen to change legs, the rider must take the corresponding motion.

It will be found that the horse will take a support from the hand, corresponding to the pace which he is going; and the support from the hand should be firm, but easy, in pleasant accordance with the action of the horse. If he be curbed up too tight, he cannot take the requisite support, and is consequently impeded in his motion. But any person of common sense will be able to form a better opinion, in this respect, for himself than can be placed before his eyes upon paper.

Trotting I consider the pace best calculated for the road; it is the safest, as the horse is less liable

to stumble or fall, when trotting well out, than in any other pace. Moreover, it is less fatiguing to the horse than the canter, or short gallop. Yet, in going a journey, it is advisable to walk a little sometimes, as well as to canter, since it acts as a relief both to the horse and his rider.

The full gallop on the road cannot be recommended for reasons too obvious to need enumeration; but since there are persons who prefer the short gallop or canter to the trot, it may be requisite to say a few words on the subject. The canter is a pleasant, graceful pace, and generally said to be easier than the trot; though I prefer the latter for road-riding; but a horse cannot be so safe in the canter, as in the trot, unless he raises his fore feet high, which retards his progressive motion. The canter I consider as the ladies' pace, which I shall not fail to notice under the head *LADIES' RIDING*.

#### RUNNING AWAY.

It may be easily perceived that a horse given to running away, is not only an unpleasant, but a very dangerous, animal. However, it may be very truly observed, that if the horse has a proper mouth he cannot run away with a rider who possesses but a trifling knowledge of horsemanship. When a horse gets the mastery on the road, and runs away with his rider, the most dangerous consequences may be anticipated; and therefore a horse of this description ought never to be ridden on the road, at least till he has been cured of this pernicious habit—and even not then, unless by a good horseman.

Manege riders pretend that no horse can run away; and I am willing to admit that horses used for that description or branch of the art of Equitation could not, as the mouth of a manege-horse is rendered so delicate, that the most trifling force is sufficient to stop him. It must not be forgotten that a horse used for the manege is by no means calculated for road riding, as his natural, useful, and proper paces become thus utterly destroyed. More on this subject hereafter.

Horses properly broke, and ridden with a light and lively hand, will not become runaways; but, where, from improper management in breaking, or having been ridden for some time by heavy insensible hands, the horse's mouth becomes callous, he will, if a spirited animal, be apt to run away. The harder you pull, the faster such animals go. In such cases, the utmost exertions must be made to unite them; that is, pull them together for the purpose of shortening their stride or stroke, and thus ultimately stop them: this consists in repeated efforts to raise the head and get the haunches under them, which diminishes the power of the horse, and gives the hand the ascendancy. Bear on the stirrup, grasp well with the knees, and, having the reins separated, throw your body back with all your weight and strength, allowing your hands to assume a firm upward operation for the purpose of getting the horse's head up: the instant this is performed, bring the body upright, that the hands may be eased, and the following is the effect of the operation:—the throwing the whole weight of the body forcibly back, the hands at the same time raising the head, produces a considerable check upon the progressive force of the

horse, it shortens his step, and the body becoming instantly upright, the horse is deprived of the support he derived from the hand, which deters him from extending himself so freely as before, at least on the instant. Repeat the same process immediately, and the third or fourth effort will scarcely fail to bring the horse well in hand, so that you can completely stop him, if you think proper. Be mindful to leave as little interval as possible between your efforts, lest the horse should recover one check before you give him another—moreover, let the pulls be resolute and determined; and they should be so timed as to correspond with the step or motion of the horse.

When to the bridoon-rein is attached a sharp twisted snaffle, by sawing the horse's mouth from right to left, will generally stop him. It might be supposed that no horse could run away when he was well curbed up, the curb having a considerable length of branch; nor are there many that can. Yet there are horses, which, either by getting the bit in their teeth, and thus preventing its due operation, or by some other means, continue to acquire the ascendancy and run away. I once purchased a very fine bay horse at a low price, which was sold on account of his high spirit. He was certainly a very spirited animal, though very good tempered; but having been improperly broke and afterwards ridden by a timid horseman, he had become unruly, disposed to run away, and, from the state of his mouth, it was no easy matter to stop him. He was a very strong, powerful, horse, nearly thorough-bred, and, finding him unruly on the road, and even dangerous, as I happened to live on the coast, I took him down to the sea-shore at low water. There were miles of good hard sand in almost every direction, and he no sooner found himself on this marine savannah than he manifested every disposition to run away with the utmost violence: therefore, taking him firmly by the head (that is, taking firm hold of the reins, in both hands, separated) I allowed him to stretch away at full speed. He went with uncommon resolution and spirit for two miles or more, when I perceived him slacken his pace, and at the end of the third mile he would have given in; however, I pressed him mildly forward for about another mile, when he very willingly slackened his pace. On the following day I took him again to the same place, and he evinced no disposition to run away. But he started very spiritedly, on trifling animation, and I took him the four mile heat again. He never afterwards attempted to run away with me, but he was not to be trusted with a timid or unskilful rider.

Some horses will run away when too tightly curbed; their mouths are thus rendered uneasy, though the operation of the curb is destroyed, and they are enabled to effect their purpose.

When a person becomes possessed of a hard-mouthed horse, he may render him lighter and more pleasant in hand by riding him according to the instructions given in preceding pages; a light and lively hand renders a callous or hard mouth sensitive and susceptible of feeling. But, if it be wished to render the horse's mouth sensitive by other means, I know of none so effectual, easy, and consequently advisable, as placing him on the bit for an hour or two, or three, every day for a



week, or according to circumstances. The bit should be wrapped round with flannel or wool; the horse will continue to play with it, and it will have the desired effect. The head of the horse is of course made fast on each side; but the mode of placing a horse on the bit in the stable is too well understood by every groom and stable-boy to need description in this place.

At the first blush of the case, it may seem strange that a soft material, like flannel or wool, should render the mouth of a horse tender; but such is the case: it operates on the mouth with a degree of irritability or tickling, by which the lips of the horse are excited to continued motion, and the object is thus accomplished.

#### SHYING IN HORSES.

Having already noticed the affected shying of restive horses, it will be necessary also to mention that there are horses which either from timidity of disposition, or other cause, are very apt to shy on the road; and, on such occasions, the ignorant and the hot-tempered are very apt to have recourse to the whip and spur, which is the worst plan that can be adopted.

When a horse shies, he should be spoken to in a soothing tone, tapped on the neck, and allowed to look at the object of his alarm for some seconds. He will then approach nearer to it, and will pass it. Nor should he be pressed too close to it the first time, unless his alarm so far subsides by looking at it, that this can be done by coaxing, not by coercive means. If a horse shies at any particular object, a windmill, for instance, he should be treated in the manner already described, and, in addition, the rider should contrive to pass it frequently, and allow the horse each time to pause and view it, by which means he will not only pass it without notice, but may be ridden up close to the very sails. On the contrary, if, under such circumstances, the whip and spurs be fiercely applied, as is too often the case, it will add terror to the horse's already-excited alarm: he may be thus compelled to rush by it, while every time that or a similar object appears before him, he expects the whip and spurs: thus bad is made worse, and the horse perhaps spoiled, if he do not throw his rider.

When a horse shies with me, I speak to him soothingly, &c., and if I conveniently can, I pause and coax the animal till he approaches quite close to the object, and becomes convinced that he has nothing to fear from it. A horse, treated in this manner, will not shy again at any thing similar; further, if this principle be steadily and good-temperedly acted upon, the horse will abandon shying in a great degree, if not altogether. Let it be well remembered, that a shying horse is as different as possible from a restive horse: the former is remarkable for good temper and a very tractable disposition; the latter for cowardly cunning, and a most treacherous disposition.

It is cruel in the extreme to urge a horse violently, with steel and the lash, up to an object which terrifies him, when the business can be so much better accomplished by mildness and gentle treatment. Indeed, in the management of horses, coercion should never be applied but when it is rendered indispensably necessary.

Spirited horses, in high condition, will start at the sudden flight of a small bird from the hedge or any similar trifle; but, as there is not the least manifestation of vice in such an occurrence, the rider should not quarrel with his horse on that account: if he should be unwise enough to apply the lash or spur, the next time a similar circumstance happens, the start of the horse will be much more forcible, (as he expects the whip and spur again), and the rider may be thrown out of his seat—perhaps to the ground. Those who ride such horses should be prepared for little occurrences of this sort, and, at all events, not to suffer themselves to be irritated by them. The horse is an animal, which is grateful for kind treatment; and I never recollect riding a horse for any length of time that would not follow me in a very friendly manner. I never had one which kicked at me when I was thrown (as I have been many times when following the hounds;) on the contrary, when the horse has been uppermost, and been compelled to place his feet upon me, he has always borne lightly, and removed them as soon as possible.

It is no uncommon occurrence for young horses to shy at meeting stage coaches, and if they are improperly treated, they become troublesome and dangerous. A horse which is afraid of meeting a coach should be frequently ridden where they pass. He should follow and accompany them for some distance—when the coach stops, he should be ridden round it; and, when meeting it, he should not be urged near it; he should be uniformly soothed, and when (in a short period) he perceives he has nothing to fear from the object which excited his alarm, he will pass it as unconcernedly as possible.

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**DUTY ON BRICKS.**—The eighteenth report of the Excise Commissioners has just been published. Their inquiries were directed to the excise duty charged on bricks, and we are happy to observe the liberal view the commissioners have taken on the subject. This will be best understood from the following extract from the concluding portion of the report:—"We beg leave, however, in conclusion, to repeat the opinion that under any modification of the system of charge or collection, or of the rate of duty, the tax on bricks will be among the most objectionable of the excise duties; first, because it is charged upon one of the most useful of our native manufactures: secondly, because the tax must in its operation be unequal and partial, from its being a charge on one kind of materials, from which others used for the same purposes are exempt—a partiality which becomes the more oppressive, when it is considered that the larger portion of the existing rate of duty has been continued in direct contravention of the stipulation which is understood to have been made at the time it was imposed: and, thirdly, because this tax, although strikingly heavy in respect to the value of the article upon which it is charged, bears no adequate proportion, either to the expenses of its collection, or to the number of persons who are in consequence subjected to survey."—We may state, that the duties collected on bricks in Great Britain, in 1834—5, amounted to 402,842*l*. We hope to have to congratulate the country soon, on the entire repeal of the duty on bricks, as it has been already done in the case of slates, tiles, stones, and other materials consumed in building.

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The vines of France are said to occupy 4,265,000 English acres; the value of the produce of which is reckoned at 22,516,220*l*. per annum.—*Mirror*.

## COMMITTEE ON AGRICULTURAL DISTRESS.

Subjoined will be found some tables extracted from the report of the evidence which has been given before the Committee of the House of Commons upon agricultural distress. There are two which furnish the prices of Southdown wool and lambs bought at Weyhill through a series of years. They will be found interesting, as shewing the variations which have taken place. There is another well deserving attention, namely, the return of the amount of bones imported for the purpose of being used for manure. The astonishingly increased use of this article in England and Scotland will prove the high estimation in which this species of manure is held on particular soils. It will be seen that the value of the bones imported into England in 1821 amounted to £15,898. 12s. 11d.; while in 1835 it had reached £127,131. 14s. 10d. In Scotland, in 1821, the value of the quantity imported was £69. 17s.; whereas in 1835 it had increased to £28,215. 15s. 1d. The duty is *ad valorem*, £1. upon £100. in value, and was, for England, last year, £1,309. 10s. 9d.; for Scotland, £85. 6s. 8d. It seems trifling with the feelings of the Agriculturist to suggest any relief from the repeal of this small duty, but nevertheless as the business of the farmer especially in these times, consists of a minute attention to outgoings, we cannot but think that benefit would be derived from the removal of any impost which may operate either to raise the price of so valuable a means of improving the soil, or throw an obstacle in the way of obtaining an ample supply of the article. We find in that part of the evidence which we have been able to get through, that this subject is several times alluded to. Mr. John Houghton, an extensive farmer and receiver of rents, residing at Sunninghill, in the county of Berks, and occupier of farms in several counties, says, "unless it had been for the introduction of bones, thousands of acres of land could not have been brought into cultivation." He also observes, that bones were extensively used in Lincolnshire, on land which ten years ago would not grow anything. Again, he says in reply to a question, Q. "That Wold land before the bone system of husbandry was not worth more than 5s. an acre?" A. "It was not worth that." Q. "Since the introduction of that system about ten or twelve years ago, it has been worth 20s. or 25s?" A. "In some instances." For the information of those who are not acquainted with the use of bone manure, it should be observed that it is incidentally stated that bones will not bear wheat so well until after the land has been chalked, and that it is not found to answer well on a gravelly loam. There is another table furnishing the quantity of grain sold for a series of years; according to the returns made from the 149

towns by which the averages are regulated. It will be doubtless in the recollection of some of our readers, that Mr. Cayley stated at a meeting which took place in the latter part of the last year, or in the commencement of the present, that these returns when furnished would supply information as to whether the quantity of wheat brought to market had increased or not. We then took occasion to caution our readers against any reliance for such information upon so imperfect a source. The returns have been made, and Mr. Jacobs, who is Comptroller of Corn Returns, and from whose office the returns are obtained, has positively stated on his examination before the Committee, that no reliance can be placed upon them as furnishing a correct statement of the growth or the quantity actually sold, inasmuch as in many cases the same quantities change hands many times, and get returned as often.—*Mark Lane Express.*

**WHEAT.**—Account of the Total number of quarters of Wheat sold in each of the 149 market towns from which returns are made:—

	Qrs.		Qrs.
1825.....	2,020,472	1831.....	2,801,478
1826.....	1,885,737	1832.....	3,295,662
1827.....	2,026,580	1833.....	3,600,321
1828.....	2,718,818	1834.....	3,758,910
1829.....	2,573,376	1835.. returned	3,927,620
1830.....	3,140,997		

**LAMBS.**—Average number and price of Lambs bought at Weyhill Fair, from the year 1825 to 1835 inclusive, by G. and J. Smallpiece, of Compton, near Guildford, Surrey, handed in to the Committee of the House of Commons, now sitting on agricultural distress.

		Average Price per animal.
1825.....	1,719	23s 1d
1826.....	2,118	13s 9d
1827.....	1,759	18s 0d
1828.....	1,365	20s 8d
1829.....	1,400	16s 9d
1830.....	2,794	15s 10d
1831.....	2,161	21s 7d
1832.....	1,601	17s 5d
1833.....	1,365	22s 10d
1834.....	1,734	23s 3d
1835.....	840	16s 0d

**WOOL.**—The following statement of the sale of Down Wool, in Surrey, was delivered in to the Committee of the House of Commons, now sitting on agricultural distress, by G. Smallpiece, Esq., on his examination.

	s.	d.
1813, Sept. 6, clip of 1812 and 1813	1	8 per lb.
1816, Nov. 26, do. 1814, 1815, 1816	1	0
1819, Oct. 23, do. 1817, 1818, 1819	1	6
1821, Sept. 25, do. 1820, 1821	1	6
1823, April 23, do. 1822.....	1	2
Oct. 14, do. 1823.....	1	3
1825, Jan. 14, do. 1124.....	1	2½
1827, Oct. 20, do. 1825, 1826, 1827	0	10
1830, April 21, do. 1828, 1829	0	9
June 25, do. 1830.....	0	11
1832, Oct. 16, do. 1831, 1832	1	1
1833, July 11, do. 1833.....	1	4½
1835, June 5, do. 1834.....	1	6
July 9, do. 1835.....	1	6

March 5, 1836.

**DISTILLERIES.**—Account of the quantity of Wheat and other grain consumed in the distilleries in the following years, according to the nearest approximation.

Years ended Oct. 10.	{	1833 . . . .	1,221,607
		1834 . . . .	1,238,047
		1835 . . . .	1,294,224

**BONES.**—Account of the Duties and Value of Bones of Animals and Fish, (except Whale Fins) intended to be used as Manure, imported into England and Scotland, in the years 1821 to 1835 respectively, and the Duty paid thereon:—

ENGLAND.						SCOTLAND.							
DUTY.		DECLARED VALUE.		DUTY.		DECLARED VALUE.		DUTY.		DECLARED VALUE.			
£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.		
1821..	158	19	7..	15898	12	11	....	0	14	9..	69	17	0
1822..	94	5	5..	9438	0	5	....	0	10	11..	52	12	0
1823..	143	19	3..	14395	15	8	....	0	16	10..	82	0	6
1824..	439	9	8..	43940	17	11	....	0	16	7..	82	14	0
1825..	865	14	11..	86571	5	8	....	1	9	11..	139	4	6
1826..	993	7	1..	94747	16	1	....	2	8	5..	245	18	3
1827..	817	0	10..	77956	6	8	....	18	0	11..	1795	4	6
1828..	625	19	10..	59782	9	11	....	28	14	2..	2874	5	7
1829..	623	19	6..	59741	11	10	....	124	8	5..	12322	4	9
1830..	602	14	8..	58233	16	5	....	85	5	10..	8329	13	8
1831..	678	8	5..	65623	10	0	....	71	0	10..	7078	15	0
1832..	799	16	5..	77847	4	0	....	140	9	4..	13908	1	1
1833..	983	17	3..	97900	6	4	....	255	17	4..	25522	4	7
1834..	1211	2	2..	118121	11	0	....	216	3	9..	21452	8	4
1835..	1309	10	9..	127131	14	10	....	285	6	8..	28215	15	1

The duty is 1*l.* on every 100*l.* of the value.

The price of Bones at present at Hull, is about 4*l.* 10*s.* per ton, so that the number of tons imported in the last year may be easily ascertained.

**COMMUTATION OF TITHES.**

**STR,**—Land subject to tithe must render one-tenth of the gross produce, if demanded; how is it, then, that much less than a tenth is taken by composition? There are many reasons?

First, If tithe in kind were generally demanded, the whole system would be abolished. Even in a small district of eight or ten parishes, if the occupiers of land received notice to set out their tithes in kind, the law would not be willingly complied with. Again, if tithe in kind were demanded, the cultivation of the land would be so checked that the tenth would not be worth so much as can be at present obtained by composition, under which the occupier feels himself at liberty to render his land productive.

The enormous expenses to which the tithe owner is subjected in collecting his tithes, and his liability to all the taxes consequent thereon, together with the hostility which such a system must inevitably engender, are sufficient reasons against a more general practice of exacting tithe in kind.

We, therefore, must come to this conclusion, that composition is more desirable to the tithe owner than taking it in kind, as there is no doubt the tithe in nineteen parishes out of twenty is compounded for.

Let us consider then how this great and difficult question can be arranged, so that justice may be dealt out to all parties: I have stated that, according to the present law, the tenth of the gross produce belongs to, or can be demanded by the tithe owner; to this the occupiers would not submit, therefore it cannot be taken. I maintain this position, viz., that tithes, although by law protected, cannot be collected in kind, if generally demanded.

What will you then resort to for the purpose of ascertaining what would be a fair settlement of the question? Will you take a portion of the rent, or annual value, on which to fix a rent-charge? I confess, from all my past experience, rent and tithe are two separate properties, and have not governed each other.

I am aware, to save trouble in valuing tithe, valuers have generally taken a portion of the rent of arable, and a portion of the rent of meadow, or pasture land, in lieu thereof.

Looking generally at the cultivation of the country,

you will find many occupiers of capital and skill very active cultivators of the soil, and for various reasons; I am one of them, for the express purpose of giving employment to as many of the labourers as I can, having always more than can be employed. Am I, then, to be fixed with a rent-charge measured by the produce of the last seven years, when a neighbour who has done but little with his land will have a smaller rent-charge, merely on account of his having bestowed so little capital and skill on his land? Therefore, to perpetuate a high rent-charge on industry, and a low one on idleness, or from any other such cause, must be manifestly unjust.

I am aware there must be what is termed "giving and taking;" but some cases will run so wide of each other, that the aid of some intermediate power must step in.

The most equitable principle to adopt as a rule for commutation (if the difficulties could be got over,) would be to take land in its fair proportions of arable and pasture, and the produce to be considered as in a moderate or natural state of cultivation, and not in an artificial state to force crops, as is now the case, which can only be done by valuation and under particular directions, and this may be found inconvenient. In respect to a permissive clause, I have no doubt but that many private agreements will be made; but whatever time is given for this purpose, the shorter the better, as none will be entered into until the last moment, and then only by those tithe and land owners who are moderate in their demands; all the extreme or hard cases which require immediate settlement, will be left out. Undoubtedly this is a difficult question to adjust permanently, and to do justice to all parties interested; but however great the difficulty may have become, it will continue to increase, and the subject be rendered more intricate. Look at the effect produced by the poor Law Amendment bill; from the short experience we have had of it, the poor's rates are already reduced from thirty to fifty per cent., this in other words is an increase in the value of tithes, the system of managing the poor's rates being now taken out of the hands of the occupiers of land; and the power of defending themselves against the tithe owner who sought to exact the last shilling, which they before possessed, is now suspended.

Is it just to the labouring man that tithes should remain a restrictive law against cultivating the soil actively when relief is refused to him; and is it not injurious to the best interests of the kingdom that there should be any check put upon the productiveness of the earth? We will now examine the position of rent as compared with tithe since 1792. I happen to be in a situation to know how these two properties have gone on together. In a considerable district one hundred pounds rent in 1792 amounts to now, on an average, one hundred and forty pounds. The increase of rent on the good land has been more, but the increase on the poor land has been less. One hundred pounds tithe in the same district in 1792, has increased under composition from that sum to at least two hundred and forty pounds per annum; this will not surprise a practical man; the fact is, agriculture is rapidly increasing in cultivation, although the poor land will leave little or no surplus for rent; a great cause is, an increased population of labourers, and the hope of some greater future prosperity.

When you consider how tithes have increased on rents since 1792, up to the present time, and look at the present increasing population, it must be perfectly clear that in a few years the tithe of all the poorer soils cultivated will be of more value than the rents; this shows the necessity of adjusting the matter.

In reference to the increased value of tithes arising from a decrease of poor's rate, I must here observe that, within the last forty eight hours I have received a notice to set out my tithe in the parish of Winchelsea, by the Rev. James John West, the rector; I have not the least doubt that the step has been adopted in anticipation of the extra value which the tithe will assume in consequence of the poor's rates in the parish being reduced from 18*s.* in the pound to 6*s.*, and I admit his right so to do; however, I am but a very small occupier in

this parish. Now let us see if any means can be devised to assist the settlement of this all-important question. I have been of opinion from the commencement that reference to gross produce must be abandoned. In the first place, it is not to be ascertained; in the next, if it could be brought about, it would be unjust, because the occupier would be found in a higher state of cultivation than he ought to be, having cultivated his land under composition.

With all the consideration I can give to the subject I have arrived at the following conclusion, viz., that compositions paid, or agreed to be paid, for the last seven years, leaving out many cases which will appear to require some alteration both by the occupier and the owner, such as an extreme cultivation or extreme composition, whether high or low, should be investigated by an appeal to the commissioners, who should have power to call in assistance to adjust any difference or difficulty that might occur. With regard to composition made and agreed to by both parties for the last seven years, who is to say they have not been fair and satisfactory, and that such a mode of proceeding is not the best, and only fair rule, to govern the rent-charge? subject as before, to an appeal in particular cases, and these will adjust themselves if power be given to the commissioners to regulate them. When you have ascertained what have been the compositions for the last seven years, and have regulated the extreme cases which will be found easy by practical men, a question will arise whether the owner of the land is not entitled to some considerable abatement on account of the better security given to the tithe owner; I am of opinion the tithe owner can afford to make a considerable deduction, having collected tithes myself: I have always met with losses, and occasionally they have been heavy. With reference to hop-grounds, I trust that as a very considerable outlay of capital must unavoidably be expended on them, at any rate, the present arrangement will immediately stop tithes in kind proceedings; the compositions of such parishes as are adjacent to those in which tithes are taken in kind, should guide the value of composition to be levied in lieu of tithes in kind.

In conclusion, I beg to observe, that in my opinion the foregoing plan is calculated to adjust the question of tithes more fairly than any I have yet seen; and as some cases will be found to require a special regulation, I am sure no general measure can be satisfactorily adopted without providing in some way for the extreme and exceptionable cases.

I am, Sir, your obedient humble servant,  
SAML. SELMES.

Beckley, Sussex, March 25.

## MEDAL IN HONOUR OF THE LATE SIR JOHN SINCLAIR.

"Ye generous Britons venerate the plough."—THOMSON.

We need scarcely say that the suggestion conveyed in the following letter has our most cordial approval. Any one who has seen the 400 medals struck in France, in the reign of Napoleon, will admit that a cheaper and more beautiful way of making imaginative Art minister to the immortal honour of valour in the field, or wisdom in the senate, or patriotism in directing national industry, cannot well be conceived. Let D'Israeli speak:—De Serres, in 1559, composed a work on the cultivation of mulberry trees, in reference to the art of raising silkworms. He taught his fellow-citizens to convert a leaf into silk, and silk to become the representative of gold. Our author encountered the hostility of the prejudices of his times, even from Sully, in giving his country one of her staple commodities; but I lately received a medal recently struck in honour of De

Serres, by the Agricultural Society of the Department of the Seine. We are too slow in commemorating the genius of our own country, and our men of genius are still defrauded of the debt we are daily incurring of their posthumous fame. Let monuments be raised, and let medals be struck! They are sparks of glory which you scatter through the next age!" Monuments are not so easily raised; but they are by no means the sole mode of perpetuating glory, or of rousing emulation. It may even be questioned whether, in this respect, they are more influential than medals. They are more imposing, certainly; but then they are fixed, and cannot, like medals, be circulated into every household, there to add fire to the fire of rising genius. Why in this country are we so chary of sowing the land with these "sparks of glory," the immortal seed of emulous virtue? We hope the Highland Society of Scotland will do themselves and the country honour, by giving us a noble medal of the patriot Sinclair, at whose call Plenty sprung from our rough soil,

"And leapt to life with her redundant horn."

For no other man proposed to be thus honoured by a medal could more beautiful devices be so easily found, drawn from the feast of sheep-shearing, and "the days of the wheat and barley harvest?" Here at once, from old Homer, are some pictures that would do for the reverse of the medal. We transcribe from the shield of Achilles; and the reader who feels not that the simple things of nature are the same in all ages deserves not to eat wheat from the fat leas of Nithsdale.

"And in it he made a soft fallow, a fertile arable land, spacious, thrice worked: and many ploughmen in it, driving their oxen, turned them this way and that. When the ploughmen after turning came to the end of the field, a man was ready to put in their hands a cup of honey-sweet wine; they accordingly turned their plough along the furrows, being eager to arrive at the end of the fertile field. And it (the field) grew black behind them, and was just like a ploughed field, though made in gold: this indeed was a marvellous piece of workmanship.

"And in it he made a field with high standing corn, and reapers were cutting with sharp scythes in their hands; while some stalks were falling on the swathes close after one another on the ground, the binders were fastening others up in sheaves. The sheaf-binders were three, and behind them children collecting the corn in bundles, and carrying it in their arms, continually supplied the sheaf-binders. Among them stood the lord in silence, on a swathe, with a staff in his hand, well pleased. In another part of the field servants were preparing a repast under a tree, and they were dressing a large ox which they had killed; and the women were preparing supper for the reapers, and were kneading much white meal.

"And in it he made a herd of oxen with upright horns; and the cattle were made of gold and tin; and with lowing they were moving from the stall to the pastures, along a murmuring brook, by the rustling reeds. Keepers of gold were following the herd: four keepers and nine swift dogs with them. \* \* \*

"And in it skillful Vulcan made a place of pasture, a large pasture for white sheep in a beautiful valley; he made both folds and huts for the shepherds, and pens with roofs.

HERE FOLLOWS—THE KIRN?

"And in it skillful Vulcan made a dance like that which Dædalus once made in spacious Gnossus for Ariadne with beautiful hair. Three youths, and virgins to be bought with large dowries, were dancing, holding one another by the hand: the virgins were clothed in fine linen, and the youths in well spun vests, smooth and shining like oil. And the girls had beautiful chaplets on their heads, while the youths had golden knives

fastened with silver chains. At one time they would move lightly with their feet (running in a circle) just as a potter who is seated tries the wheel well fitted to his hands, to see if it will run; at another time they would move in lines towards one another. And a large crowd delighted stood around the happy troop, while two active dancers among them began the song, and moved quickly in the midst."

But now for the letter:—

(To the Editor of the *Dumfries and Galloway Herald*.)

SIR,—I was very much pleased with the brief but comprehensive terms in which, last week, you characterised the important services done to his country by the late Sir John Sinclair. My immediate object in writing to you at this time is to give, through the means of your paper, which is read by so many landed proprietors in these southern districts of Scotland, a hint to the agricultural public, of the propriety of having a medal struck in honour of the patriotic Sinclair, to whom we are all so much indebted for the development of our national resources. If conquerors and mere men of letters are judged worthy of so much of a people's gratitude as to have costly monuments erected to their memories, how much more worthy is he who, by his example and instructions, and unwearied exertions, has taught his country to grow in all useful knowledge, to put forth her energies to bring plenty from her soil, to extend her cities, to fill them with inhabitants! Sir John Sinclair amply deserves a monument from his country. But whether or not this can be easily obtained, it is at least a thing of no difficulty to strike an appropriate medal in honour of his important labours, and thus allow simple husbandmen, like myself, a cheap opportunity of possessing a memorial of a man whose memory we, especially, are bound to venerate. I trust the Highland Society will take the hint, and manage the thing in a way that may do honour to Art, and satisfy the grateful respect of our swains, for the memory of such a patriarch and patriot as the late Sir John Sinclair.—Yours, &c., A FARMER.

ADAPTATION OF THE CURRENCY TO THE RELIEF OF AGRICULTURAL DISTRESS.—THE LATE LORD SONDES.—The last moments of this noble-minded peer were distinguished by the peculiarity which characterized his walk through life. Few individuals, perhaps none, ever looked on the "pale messenger" of death with greater composure or more manly firmness. On the morning of the day he died he intimated to his surgeon the prudence of tapping; and when informed that the operation would endanger his life, he exclaimed, with much emphasis, "What! tell me whether you think I shall outlive the day?" "I fear not," answered the surgeon. "Do you (he then continued) think I shall live an hour or two?" "That is doubtful," responded his attendant. "Then call Milles" (the present Lord), on whose appearance he coolly said, "Milles, I am off, you succeed me here." After this he made several legacies to the amount of 7,400*l.*—to his surgeon, three or four of his tenants, and house-keeper, with 500*l.* to his nurse (a Canterbury woman). Desiring some wine, it was handed him, when he said, "You'll soon follow me; may God forgive me my sins and all of yours. I hope we shall meet in a better world." Shortly afterwards, the wine reviving him, he turned round and exclaimed, "Death is a long time doing his work, is he not?" He expressed to those around the consciousness of feeling perfectly happy, and was occasionally heard to repeat certain portions of Pope's celebrated hymn, "Vital spark," &c. To those affected to weeping, he said, "What are you crying for?—don't weep for me—I am happy!" A few minutes before his decease he was removed from the bed to his chair, where, about half-past 8, supported by his nurse, he quietly breathed his last, without a sigh or groan. In addition to numerous legacies left by this truly charitable and munificent nobleman, his lordship's last bequest was a year's rent to each and every of his tenants. The amount is said to be about 30,000*l.* Several of the tenants will be thus benefited 1,000*l.* and 1,200*l.* each.

## BURNT SOIL AS A MANURE.

TO THE EDITOR OF THE IRISH FARMER'S AND GARDENER'S MAGAZINE.

SIR,—I have often endeavoured to impress on the minds of farmers, the great value of burnt clay as a manure, and as the season for preparing it has now arrived, we will refresh their memory on the subject; and here it may be necessary to observe, that the preparation of the soil for this purpose is very different to the usual practice of "paring and burning," which, on some lands, is most injurious; whereas, making manure of waste headlands or subsoil, and carting it on those that are shallow or exhausted, improves and fertilizes the latter, and brings them into profitable action. It is generally admitted that ashes are most active manure; but in producing them off thin soil, its staple is much reduced; and notwithstanding two or three crops may be forced in this manner, yet the deterioration which the land afterwards suffers will ultimately reduce the profit which such a system of manuring may produce.

There are also other advantages in using burnt soil, or sub-soil, for manure, namely—it can be produced from land dissimilar to that which is to be dressed; and the effect will be likewise more lasting than ashes in promoting vegetation for a succession of crops.

Burnt soil is a good manure, on the same principle that ashes are, because it has gone through the process of ignition, and, consequently, strongly impregnated with oxygen and hydrogen, which is the food of plants. No doubt some vegetable matter, in the process, is dissipated, yet what remains is brought into a fitter state to promote active vegetation. However, in cases even where there is but a very small proportion of vegetable matter contained in the soil thus prepared, or even should it be a *caput mortuum*, yet, by putting it through this process, it will become most fertilizing to the soil on which it is applied. I have tried it for potatoes, Swedes, and the common turnips, at different times, with the greatest success; and in some cases I have found these crops more productive than when manured with farm-yard dung. It will require one hundred cart loads an acre for either of the two former crops; but seventy will be sufficient for the Norfolk, globe, or store turnip. If, however, one-third of well-prepared dung can be blended with the heap, about a few weeks before it is applied, for potatoes or Swedes, it will insure a more productive crop on light soil. On strong and deep land I have found this unnecessary.

The following is the simplest mode of performing the process, when grass headlands are to be burned:—

Dig a hole about four or five feet in diameter, and two feet deep, nearly on the centre of the land to be stripped; cut four narrow flues, five or six feet long and nine inches deep, to communicate with this hole, and cover them with strong sods; fill the hole with brushwood, three feet high, and over this strong loppings of trees; on the top of this, and all round the brushwood, place large blocks of wood, or stumps, well dried, in such quantities as to produce a strong fire. A day or two preparatory to this, let a large quantity of sods be cut about six inches thick, and of a middling size, and on the fire being sufficiently kindled, which it will probably be in half-an-hour, place the sods round the fire and on the top, till it is quite smothered down—observing at the same time to keep the flues opposite the wind open, and

the others closed. When you are satisfied that the strong timber has well taken fire, put on the sods as fast as possible—for this is the critical time to keep in the heat. In order to do so, the smoke should not be permitted to escape freely. It must be recollected, that the object of thus preparing the soil, is not to reduce it to ashes; but to sweat it—if I may use a common, but a very strong expression, in order to explain myself. A kiln of twenty or twenty-five loads, may be nearly finished in a day, but will continue burning for a week, or more, and will require to be dressed daily, morning and evening with sods, in order to keep in the heat and smoke. When cool it should be turned over and chopped, if intended for potatoes or Swedes; but if for a late crop of turnips it is better to cover the heaps with soil, in order to preserve their fertilizing properties till wanted.

This preparation of headlands is much more economical and beneficial than if dug and mixed with lime: and in cases where the soil is not sufficiently adhesive to cut into strong sods they may be managed in the following manner, viz.: dig a trench seven or eight inches deep, and about two yards wide, in the centre of the headland to be prepared; get some turf or coal, and kindle it in a place convenient, and when lighted divide it in the place excavated into small heaps at four or five feet asunder, and to these add some fresh coal or turf; if the latter, a larger quantity will be necessary. When this is lighted cover the entire with sods or adhesive soil or subsoil about eighteen inches high, to the width of the trench, which, when the fire appears to come through, give the surface a dressing of half an inch of culm or strong cinders, and on this you may lay on the soil from the headland, even if it does not adhere firmly; for at this time the fire of the kiln will be sufficiently strong to force its way through and light the layers of culm as they are laid on alternately until the heap rises five or six feet high. If the smoke comes through the soil that is laid on it is sufficient, and the slower it burns the less the heap will be reduced, and the manure produced will contain more fertilizing properties than if quickly burnt to ashes. These kilns may be made of any shape or size most convenient, provided the principle stated be observed and practised.

For potatoes or Swedes, it is advisable to put this manure into drills under the plants or seed; but for late turnips harrowing it in broadcast will answer. The subsequent corn crops I have always found equally productive and of better quality than off land prepared with farm-yard dung. Was it not that I should trespass on your pages, I could state one hundred experiments made in the use of burnt soil to corroborate this assertion,

I have adopted the term *soil*, instead of the more usual one, *clay*, lest it might be supposed that clay soil alone can be thus prepared. There are, no doubt, some soils which cannot be beneficially put through this process, especially such as are too silicious—but there are but few farms on which soil or subsoil cannot be procured fit for the purpose.

AGRICOLA.

*Collinstown, March 22, 1836.*

## ON BONE MANURE.

BY MR. M. M. MILBURN.

(Continued from page 294.)

We have frequently heard it raised as an objection to bone manure, that it affords no fertilization to any

crop after that of the turnips to which it is applied. To this it may be answered, that the object of the turnip farmer is to realize a crop of turnips, which being eaten upon the land by his sheep, is the very best management for securing plentiful succeeding crops of corn and seeds. Objectors to bone manure sometimes say, that it is more the natural fertility and good condition of the soil itself, that produces the turnips, than the bones laid upon it, because all the food which the bones can convey to the plants is not sufficient to have any considerable influence on their growth, in the quantity in which they are generally laid on. The practical farmer however can easily refute this. If when they are drilled the machine is obstructed by any accident, while the seed continues to be sown, it will germinate and spring up like the rest, but in a few days the plants will dwindle and die away, while on the very next seam, where the seed and bones dropped together, the plants will be healthy and luxuriant. But of this subject more afterwards. Another advantage of bones may be stated, which is a very valuable one on light soils. The vigour and health which they cause in the plants, as well as the regularity in which they grow, cause them to cover the ground by far more perfectly, than when sown with ordinary manure. Every farmer well knows, that the interstices between the rows of turnips sown with farm-yard manure, will sometimes in spite of all his carefulness, remain uncovered, and then weeds, and that pest of all light soils quitch, will be encouraged, and impoverish the soil, and in the freeing from which, nearly all the labour of the light-soil farmer consists. The superior luxuriance, regularity, and rapid growth of turnips sown with bone manure, prevent the weeds and quitch from making any progress, so that even cleanliness considered, they will possess the advantage. It would be unfair however to look at one side of the question without the other. I am not quite sure, whether they do not encourage that destructive grub the wire-worm. A field never known to grub, was sown with bone manure; the plants came up healthy and vigorous, perhaps more so than had ever been previously witnessed, but they went off completely by the wire-worm in the month of August. I do not say that this isolated instance should be set up as a proof of their always producing similar effects, or even always producing them on land predisposed to grub, but the fact that wire-worms were found adhering to the skull, and under the hair of the celebrated Hampden when he was disinterred, seems to indicate that bones have some attractions to that destructive insect.

To make a farmer, requires judgment, experience, and decision. The dearly-paid-for credulity of some theorists has produced the general jealousy of, and prejudice against, any newly discovered improvements among the farmers as a body, for which they are remarkable. I remember a circumstance which occurred some years ago, which tended very much to prejudice the minds of the neighbouring farmers against the use of bones as a manure. A gentleman farmer had it intimated to him that abundant crops of turnips might be procured by the application of bones. Braving a thousand difficulties, he purchased whole bones by the bushel; employed a number of labourers to break them in pieces, and laid them on the land, sowing them broad-cast. The result was a total failure of his crop, no little to the amusement of his neighbours, who joked and laughed heartily at his "whim," for the next season he carried his revenge so far against them for the loss of his crop, that he actually had all that could be seen, gathered off the land. Now a little reflection would have ac-

counted for all this. The bones had not been broken sufficiently small, to cause them to decompose readily, and what would cause them still more to resist decomposition was, that they were recent ones; besides the turnip plants had no regular and direct communication with the bones, so indiscriminately scattered over the furrows, and part, and a very considerable part, never coming in contact with them at all. I mention this circumstance, not to expose the ignorance of the individual or his want of judgment, for this occurred at a time when as a user of bone manure he stood alone, at least in the district in which he lived; but the practical man may gather much information from this failure. *The seed must come in contact with the bones*, and all the bones that do not, may be considered as wasted, so far as the turnip crop is concerned. The practice when they were first introduced was, to sow them 'under furrow,' or before the land was ploughed, and then sow the seed with the plough-drill, the same as with putrescent manure; this occasioned much waste, and the plan of drilling the seed along with, and upon the bones, is now almost universally adopted. Some however object to this, on the ground that the plant receives as much and more nourishment, from the side fibres, than from the tap-root; quite forgetting, that while by the broad-cast method, there are one-sixth part of the bones which the side fibres never reach; the drill method ensures a supply to all the spongy parts of the plant, no matter in what direction they may extend. A manifest difference however exists, even in the modes of drilling; one method is to plough up ridges at about eighteen inches distance and drilling the bones and seed in the same ridge, which of course requires them to be done singly: the other of harrowing the land level, and making undulations in the ground, by means of colters fixed to the machine, into which fissures, the seed and bones are dropped; the land is then harrowed over. The latter plan has all the advantages attending it of retaining the moisture in the ground, in a droughty season, and thereby accelerating the growth of the plants, as well as of completing it much more readily, than by the hand-drill method; but should the crop be destroyed by the fly, there is all the advantage by the former method, of again sowing the seed upon the bones, and thus having every prospect of a second crop, which you are deprived of by the horse-drill plan.

With respect to the size of the bones, much depends upon the circumstances of the case. If immediate and powerful nourishment is the object, 'dust' would be advantageous, but it must always be taken into the account that it is generally much adulterated, for which it affords facilities which the larger sized bones do not. Should more permanent advantage be desirable, it would bespeak "half-inch," which when sown with ashes, is perhaps the best size for general purposes. Many opinions have been offered as to the permanent effects of bones upon the soil, some contending that there is not sufficient weight of nourishment, in the quantities which are generally laid on, to produce any permanent effects; others that the bones are not nearly all decomposed the first crop, and that when re-exposed to the action of the atmosphere, by repeated ploughings, the fermentative and decomposing processes again take place, and of course are beneficial to the crop next sown, and which I am rather inclined to think is the case, but be that as it may, so far as the turnip crop is concerned, they are invaluable, and when that is secured, as has been already adverted to, it is one of the best dressings the land can have. Chemistry, furnishes us with the most vague and unsatisfactory theories respecting this, and were it not that practice

has decided bones to possess qualities which chemistry cannot, or has not developed, we should be at once lost in uncertainty. A writer in the Quarterly Journal of Agriculture, No. 3, vol. I. p. 49, gives the following analysis of the best bones; in 100 parts there are of—

Earthy and saline matter. . . . .	40	} parts.
Cartilage and jelly. . . . .	40	
Fatty matter . . . . .	20	

But he even admits this unsatisfactory, for he says, "The quantity allowed per acre, is not usually more than 10 or 15 cwts, of which not more than one-half is efficient as manure and this is but a small portion of the weight which we carry off the field in regular produce." But what cannot be chemically accounted for, is no less true in practice. With respect to permanent effects, I may state a fact which was communicated to me by a respectable and intelligent young farmer, and which I related at the last meeting of the Thirsk Agricultural Association, but will nevertheless mention it here. Half of a field was manured with farm-yard manure, and half with bones, and sown with wheat. No perceptible difference occurred. The succeeding clover crop was mown, but no difference still;—the second crop was also mown, and that grown on the bone manure was considerably better. The whole field was turnips last year, and all manured alike with putrescent manure, but that half of the field which was *three years before* manured with bones, was at least worth twice as much per acre as the half which was manured! Another corroborative circumstance occurred under my own observation. Part of a field was sown with turnips, and boned in 1834, and part adjoining with Swedes and stable manure. This was a thin sandy soil. The boned turnips grubbed completely off, and the field was ploughed in October, and sown with barley in the spring. The crop it had preceded the turnips, was a white one, and nothing but bones were used, nevertheless the barley crop exceeding anything ever grown upon the land before, while that which followed the Swedes was as usual poor. These facts I think furnish most convincing proofs that they not only exercise an influence on the land independently of the sheep-soil left by eating the crop, which chemistry has not accounted for, but that that influence is permanent, and not only in stimulating, and maturing the first crop, (which was done in the latter instance until the month of August,) but in sustaining the succeeding crops. It would be well worth investigation as to *how the bones act as a manure*, which I should be glad to see taken up by some of your agricultural readers.

Thorpfield, near Thirsk, Yorkshire, Mar. 30.

**NEW PLOUGH.**—Mr. Thos. Sheriff, Westbarns, East Lothian, has invented a plough, for which he has been awarded a premium of five guineas by the East Lothian Society. The property of this implement is to cultivate the sub-soil, in opposition to the system of trenching, which was lately introduced into East Lothian, and the tendency of which was to turn down the rich vegetable mould, and raise up the subsoil, in many, nay, in most cases, always the inferior. Its construction is simple, and every common plough can be converted into a subsoil plough at pleasure, and at a trifling expense. It is only calculated to operate successfully on a subsoil which does not afford much resistance; but a plough has been invented in Stirlingshire, which, with a proper application of strength, will cultivate the most stubborn clay subsoil that exists.

## THE CENTRAL AGRICULTURAL SOCIETY.

(From the *Veterinarian*, April 1, 1836.)

The two last have been important months as it regards the veterinary surgeon, and those with whose interests he ought to be identified. On the 8th of February, a committee of the House of Commons was appointed—unfettered, unrestricted in the slightest degree—to inquire into the existence, the extent, the cause, and the remedy of agricultural distress. It is true that the leader of the House of Commons gave no hope that “the distress which now pressed upon the agriculturists could be suddenly or effectually removed by any legislative interference of parliament;” but when he has left the inquiry into the matter as free as air, and expressed his wish that “the question should be fairly sifted,” and deliberately pledged himself that, “if there were any practical means by which agriculture could be improved, it would be the duty of parliament to adopt them,” the agriculturist needs not to abandon himself to utter despair.

On the 12th, the second meeting of the Central Agricultural Association was held. It was even more numerously attended than the first, and delegates from no fewer than 58 country agricultural associations were present. Universal satisfaction was expressed at the promise by government of an impartial inquiry into the causes of agricultural depression, and there was a deep feeling that all practicable redress could not be refused without injustice or delayed without danger pervaded the whole assembly.

If the language of the speakers generally was somewhat strong, their own interest in the affair, and the appalling instances of distress which crowded upon their view, whatever part of the country they inhabited, would form a sufficient excuse. This was no time for “sweet words, low crooked curtsies, and base spaniel fawning.” It could not, however, be denied, that there was a violence of manner—a studied obtrusion of demands that never could be granted—an ill-concealed irreconcilable ill-feeling towards those whose impartial consideration they besought—a hint, a threat of possible convulsion and revolution—a studied adoption of measures which must unavoidably lead to the defeat of their professed object, which alarmed the considerate, and excited the suspicion that much more was meant by some of the speakers than met the ear.

On the 18th of March the general committee of the society met in order to report progress, and to take into consideration the measures of government then under discussion in parliament, so far as they bore upon the agricultural question. The tithe bill formed a prominent object, and the average of the last seven years' produce was pronounced to be unjust and oppressive. All this was fair, and the matter deserves serious inquiry; yet the language of sarcasm and contempt, of menace and abhorrence, which was resorted to, was at least in bad taste, and would be adopted by an enemy to the agricultural cause, *in order to ensure its defeat*: and when, coupled with this the invidious distinction was drawn between the agriculturist and the commercial man, and the capitalist and the fundholders were held up as objects of detestation—when the old visionary project, the alteration of the currency, was studiously placed in the foreground, and broadly stated to be that without which “they would not be satisfied, and the refusal of which would be followed by revolution,” the honest and considerate well-wisher to their cause began to be alarmed and disgusted. The depreciation of the currency! the virtual destruction of every contract

that has been entered into for the last seventeen years, and the robbery and destruction of at least one of the parties—the robbery (scarcely denied even by the currency man) of the public creditor—the commencement of injustice in every department and in every form, without the reparation of any one former injury; when this, at length, is brought forward as an object, not of consideration, but as “a demand which must and shall be granted,” why then it behoves the prudent man, and the well-wisher to the agriculturist and to the country, to look around him.

But why, ask some of our readers, why this in a veterinary periodical? Because the agricultural question is one with which the veterinarian has much to do—because, in all but our large towns, and there too in a considerable degree, he is identified with the weal and with the woe of the agriculturists—because he has to do with the usefulness and the very existence of the most valuable part of the property of the agriculturist—because, as was stated in a former number, this very society has plainly and fully recognized the association between the farmer and the veterinarian, and has talked of adopting means to render that association closer, and more beneficial. We therefore have a right to mingle with this society, and to concern ourselves with all those questions which implicate its prosperity, or its utter uselessness and downfall.

The veterinarian is no uninterested spectator of the present contest; and if he can aid in the accomplishment of the ostensible object of the agricultural society, he will be honourably employed. If he has the power to direct and to confine the efforts of the farmer to the accomplishment of the objects which lie within his reach, and to warn him from those on which all his labour would be thrown away, or which, if obtained, would be delusive and unjust, he will be doing much good.

Government can do something;—the commutation of tithes being effected (the present bill probably being somewhat or materially altered in its calculations and its averages), the duty on the sale of landed property, and some taxes pressing particularly on the agriculturist being repealed. The landlord can do more, by the reduction of rent, in many situations at least, and to a certain degree; and by regulating his rent by the price of corn, or of some other farm-produce. The farmer—and aided by the government, which to a considerable extent may readily find the means of doing this—the farmer may do more, by making himself better acquainted with those sciences which bear upon the agricultural pursuits; by adopting cheaper and securer means of raising the produce of the ground, and securing it from many a source of injury, or even destruction. The veterinary surgeon may contribute to the same important end much more than the farmer has hitherto thought him capable of doing, and far more than the majority of practitioners have dreamed of his being able to accomplish.

One cause of agricultural distress, and not the least, and occasionally bearing heavily indeed upon the farmer, is the mortality among his cattle and sheep. Few of the domesticated quadrupeds are suffered to die of old age; but says the author of “*A Treatise on Cattle*,” in the first page of his work, “A tenth part of the sheep and lambs die annually of disease, and at least a fifteenth part of the neat cattle are destroyed by inflammatory fever and milk fever, red-water, hoose and diarrhoea; and the country incurs a loss of nearly ten millions of pounds annually.” This calculation was the result of much diligent inquiry, and was purposely under rather



than over stated. A committee was appointed in 1833 to inquire into the state of agriculture at that time, and the following was the evidence given as to the ravages of one disease alone, *the rot*, in certainly a very bad winter, 1830.

Mr. W. R. Brown, of Broad Hinton, says, that he lost 500 sheep in four months, and that he sold 400 more at 3s 8d a piece; so that he might be said to have lost 9 00 in all, out of a flock of 1400.

Mr. W. Simpson says, that one of his neighbours lost all his sheep but three. Mr. John Buckley says that many lost all their flocks. Mr. John Western Peters states, that he knew some instances in which the farmer lost the whole of his stock, and bought a second stock and lost that too.

Mr. Smallpiece asserts, that in some parts of the Wealds of Surrey and Sussex, where there used to be two or three thousand sheep, there is not one now. He adds, "the loss extends beyond the mere value of the sheep: it embarrasses the whole operation of the farm, and throws it out of cultivation."

In consequence of this there were in Smithfield, during 1833, five thousand sheep less than the usual average number on every market day, and 20,000 less than the usual number at Weyhill fair.

Mr. John Cramp, of the Isle of Thanet, adds, "in 1824, I had improved my farm at Ashford, in the Weald of Kent, and I had a great stock upon it; but in the ensuing winter I was visited by that dreadful disease the rot, which carried away 3,000 worth of my sheep in less than three months, and I gave up my farm.

Of the truth of the assertion, then, that the mortality among farming stock is one cause of agricultural distress, there cannot be a moment's doubt; nor can there be a doubt that it is an evil which to a certain extent admits of remedy.

What has been the case with the horse? Opportunity has been given to study well the nature and the causes, actual and predisposing, and the proper treatment, of his diseases; and, as has again and again been proudly and truly asserted, many diseases most frequent and most murderous have in a manner disappeared, and hundreds of thousands of pounds have been annually saved to the cavalry service and to the country. The success of the veterinarian in his treatment of the horse is a pledge of what he would be able to do were his education and opportunities the same as it regards neat cattle and sheep. We state without fear of contradiction, that the number of deaths from inflammation of the lungs, staggers, glanders, is not one-fourth part of what it was forty years ago; and there is no reason to doubt that the diseases of cattle and sheep would diminish fully as much in number and in fatality if equal opportunities were afforded for obtaining a correct knowledge of their nature and causes.

We are not wandering, then, from the legitimate object of our periodical when we occasionally notice the professed object and the real progress of the great agricultural society lately formed. Statements like those which we have made are intimately connected with the prosperity and honour of our profession; and the time is not far distant when veterinary science will proudly assume her true station as identified with the vital interests of the country.

Let veterinary surgeons coalesce with the district societies around them, and let them use the little interest which they possess in preventing the noble objects which such societies, properly conducted, can accomplish, from being sacrificed by the demand of that which it would be neither honest nor possible to grant, and by covertly making their assemblies the engines of political faction.

Y.

## ON THE DIFFERENT MODES OF IMPROVING THE SOIL.

BY M. PUVIS.

(Translated expressly for the Farmer's Magazine.)

THE USE of ASHES is very great in the extent of Argilo-silicious earths between the Rhone and Saone; reaching from the gates of Lyons into the departments of Létin, Saone-et-Loire, Jura, and Haute Saone. Lyons having supplied lye-ashes to the agriculturists of its vicinity who use large quantities, disperses them by means of its rivers to their banks and the adjacent countries, where the price runs from 1fr 50c to 3fr per hectolitre.

The usual quantity for a dressing is not so great elsewhere as in the neighbourhood of Lyons; it is about 20 or 30 hectolitres per hectare; they are in these parts spread upon the land before seed-time. The earth and ashes should be perfectly dry and they allow them to dry upon the land for twenty-four hours if possible, and then plough them lightly in. Ashes are also used very frequently for buck wheat upon fallows, in the month of June; they make sure of the crop, and also of the wheat and rye to succeed it. The effect of ashes is very slight after two years, when they alternate them with dung, as it is found better to use them only once in four years. Near Lyons they are employed upon maiden lands, in large quantities successfully, as much as 50 hectolitres, per hectare; the effects of this proceeding continue a long time; also upon their tilled lands they use great quantities; indeed such as it would appear are warranted rather by the lowness of price than the wants of the soil; the price here being 1fr to 1fr 50c per hectolitre.

In La Sarthe ashes are very dear and much sought after; they are employed conjointly with lime; to which, however, they are preferred for light soils; the quantity used is about 12 hectolitres per hectare: the excellent effect is shewn in the crops of buck wheat and of white wheat produced.

In L'Indre they are more particularly used in raising rapeseed; in dressings of twenty hectolitres to the hectare, and with this manure only from 20 to 30 per hectolitre per hectare are obtained.

Ashes are more frequently used alone, without other manure; but where their value is best known, as well as their price greatest, they have been recognized as acting more effectually when joined with dung, the effects of that being also increased; as also in the case of marl and lime; the fertility of the soil being much greater. In a commune near Louhans, (Saone et Loire), they make use of ashes more especially for wheat; they add half the usual quantity of dung to 8 or 10 hectolitres of ashes, and the effect produced by this mixture yields more than an average crop. In the commune Saint Etienne, near Bourg, they adopt a somewhat similar plan; the dung gives them opportunity of keeping a cold, heavy soil more exposed to the action of the atmospheric agents. Although ashes render the soil more susceptible of this latter action, they at the same time increase its tenacity, and on this account are more especially adapted to light soils.

In humid soils the quantity used must increase in proportion to the moisture, but if waters stagnate upon them the ashes will not produce any effect, unless the lands are drained; and even then the effect in rainy years will be very slight.

Ashes, as we have said, are employed in all seasons, winter excepted; in the spring at first upon meadows and pasture lands; then for the sowing of barley, oats, and maize; in summer rape and buck wheats are manured with them; and in autumn, they are used in the culture of wheats and rye.

It is the custom either to mix them with the soil by a slight tillage, or to strew them over the growing crops; cast in this manner in the spring, over barley and wheat they visibly improve them; this practice, however, is but rare: I have tried both these plans, and have found that the former is decidedly to be preferred.

Experience also prefers lixiviated ashes to cinders. Theory does not support this view; but in agriculture, more even than in other sciences, we find "experientia rerum magistra." I have convinced myself of the fact here stated by experiments, but we nevertheless are not obliged to conclude that the results will be uniform in every case. Upon those soils fertilized by saline bodies, I am of opinion that cinders will produce more effect; but for those where phosphate of lime will suffice, lye-ashes having lost their soluble parts, contain more of this substance in the same bulk, and consequently will produce a greater crop.

**COST AND PRODUCE OF ASHES.**—The use of lixiviated ashes produces a double quantity of wheat, and one half as much more of other grain; here we have a surplus of wheat amounting to 4 hectolitres per hectare.

Say, that the sale of this wheat of the first crop produces 70f to 80f; and that of the other grain in the second, yields a medium of 50f to 60f; the expenses of this manure, (carriage &c. included), in the usual quantity of 30 hectolitres, at the price of 3f per hectolitre, will be 90f; thus yielding a profit of 40f per hectare, exclusive of the straw; as also of the dung which has been saved during these two years, and will be worth at least double the sum: Ashes then, even reckoning them at a high price, are evidently a loan to the land at a most usurious interest, clearly doubling itself in two years.

**ANNUAL CONSUMPTION OF ASHES ON LAND.**—We have seen that the effect of lye-ashes on the soil lasts two years; taking 20 hectolitres as the medium quantity employed, we shall have 10 hectolitres to each hectare per annum; after the two years without doubt much remains in the land, as it is found to be most profitable to use them but once in four years; but supposing all consumed in two years, we shall have as above 10 hectolitres per hectare, but these 10 hectolitres contain at least 4 hectolitres of phosphate of lime, and 3 of carbonate of the same: the earth then on which ashes have been used will have consumed a trifle more of lime than either marled or limed earth; but it will also have imbibed one sixth more phosphoric acid, one half of which only will be found in the produce; consequently, the rest remains in the soil, or forms other combinations.

Ashes are in a great measure lost to French agriculture; three-fourths perhaps are either entirely lost or badly employed; thus the loss is tremendous. Paris, which sends so far by water its mud to fertilize so large an extent of country, could afford a much better manure in the ashes of its washerwomen, one-tenth of the bulk of these acting upon as much land, and producing greater crops both upon the banks of the Seine and those of its tributaries, the demand for them would consequently be immense.

The quantity of ashes fit for this purpose in France, is very considerable; as out of eight million fires made by the French population, at least seven million are exclusively fed by wood; now we have seen that three-fourths of the ashes thus made are wasted; and these would suffice to bring prosperity, and even redundancy, to an immense extent of at present inferior land; they would increase the

produce of many hundreds of thousands of hectares by half, and which would be more too, than we derive from our six million hectares of woods, which would thus become the fertilizers of at least one-tenth of their extent of agricultural land.

**USE OF GROUND BONES.**—The analogy in the composition of pulverized as well as burnt bones, places them immediately after wood ashes; in both the one and the other, the greater part is composed of phosphate of lime, and that also is the active principle of each.

Our case we have made out for the ashes, we have only to reason from analogy to do the same for that of the bones.

And first, bones like ashes consist only with certain soils. M. M. De Dombasle in Flanders, and De Wrede in Germany, as well as many agriculturists in England and elsewhere, have found them of no value on their lands; but in the case of M. De Dombasle, it was only in places where lime was also ineffective, i. e. on calcareous soils. Some experiments, recounted by Masclet, make it appear that upon silicious soils, bones have the advantage over every other manure, while in those of a calcareous character, the case is exactly the reverse. It appears that in some cases they have been successful where calcareous formations constituted the substrata; but even in these cases it seems, that one-half the time there was nothing of that kind in the cultivated part of the soil. Further, it is certain that they have remained totally inert on chalky or marly soils, while they have been very active on dry soils not containing calcareous principles; it is then to such a principle contained in them that their efficacy is to be ascribed, i. e. to the phosphate of lime, which composes more than half of their substance invariably.

Their action does not depend upon their animal oil; for bones deprived of that, frequently produce as good effect as those from which it has not been extracted; it is not upon the gelatine contained in them, for if it were, their effects would be alike on all soils, which we find not to be the case; besides, it is recorded on the evidence of several experiments by Masclet, that boiled bones, which have lost nearly the whole of that principle in the process, are better than those in which the whole of it remains. Finally, English commerce has explored the fields of battle in Spain, in Germany, and at Waterloo, and has found that the bones, which were there exposed and had lost all their animal principles, have nevertheless produced as good effects as those still containing them. The active principle then cannot be gelatine, it can be nothing but the phosphate of lime; and indeed, practical men prefer those bones in which that substance is found in the greatest quantity, viz. those of the horse and sheep.

We may imagine then why the effects of pulverized bones are analogous to those of ashes; like the latter we find bones inert upon wet soils unless well drained; their action in small quantities is analogous to that of ashes; like them they do not exhaust the land; their effect also does not seem lasting, unless they are used in heavy dressings; finally, they must be used dry and upon a dry ground; this complete identity in property would alone prove, had we not already established it, the identity of the active principle in ashes and bones.

The general use of bones in agriculture does not appear to have originated more than thirty years ago; and is attributed to the discovery by a workman in the lead manufactory at Solingen, who first assayed it in 1802. This is however true only as it

regards Germany, in France from time immemorial the husbandmen of the neighbourhood of Thiers (Puy de Dome), used the waste from their cutlery; and in England, Colonel St Leger tried them in 1775; and further, Kirwan in his paper on manures, for which he was rewarded by the Academy of Dublin, at the commencement of the century, speaks of the use of bruised bones as a compost in the vicinity of large towns. Here then we see that each party has made the discovery, but the real merit is to profit by it, and that we cannot claim for our nation.

The progress of this improvement, formerly so tardy, has for some few years advanced with rapid strides; the English merchants seek bones in all parts of the world, even in India. Denmark alone supplies them to the extent of 1,000,000lbs per year. Join to those thus imported, the immense number obtained from the internal consumption, and it may be conceived to what an extent they are employed; thus, in more than one county, the inhabitants consider the introduction of the use of bones as manure, to be the greatest discovery of modern agriculture.

In France, however, they are as yet but sparingly employed, merely in the environs of Strasbourg and Thiers, where mills have been erected, and from whence they export them to some distance.

The Germans estimate a quintal of bone powder as equal to four loads of dung, and 15 to 20 quintals or 10 hectolitres per hectare, is their ordinary quantity, which lasts for three or four years. The Palatinate, Wirtemberg and Baden use it; and probably it is from thence it was introduced into Alsace. They employ the powdered bones in a similar manner to other manures, either spread on the surface or ploughed in; they mix it freely with both their winter and spring seeds, and sow it at the same time. The bones which they plough in are ground less fine than those which remain on the surface; the effect of the first method is the more durable.

The English do not entertain so high an estimate of the value of bones in proportion to that of other manures. In this case as in that of lime, their doses are much larger than those of other countries; although the price of bones is greater there than elsewhere, their medium quantity of 20 hectolitres or 40 quintals per hectare, is double that of the Germans; and sometimes this dressing is increased to double and triple the quantity on meadows and down lands; but then, as in large doses of ashes, the effect is prolonged beyond twenty-five years; and even after that period if the land be tilled it will be found well manured.

The price of bones in England has risen to 15*s* per hectolitre, and at this price their employ still leaves a profit, or their use would doubtless be discontinued.

It is especially on turnips that they seem to have effect; in some counties increasing the produce from three to tenfold. It is very remarkable that turnips thus treated are exempt from the attack of the insects which so often destroy them. They employ them most freely with the drill, sowing in the same line and at the same time, the compost and the seed; without doubt it is this method which preserves the young crop; the worm will not touch it, as it is growing in the midst of substances so obnoxious.

It is with bones as with other calcareous agents, their power is increased by the addition of other manures. Thus the admixture of bones with ashes mutually increases their effects; a certain Swiss found benefit from adding three pounds of sea salt to

each quintal of bone dust; and an Alsacian praises the addition of saltpetre. Further, when fresh bones are employed it is found advantageous to suffer them to ferment, and lose some part of their volatile principles; however, of all the preparations of bones the mixture of them with dung seem to have been the most successful; and the reciprocal action of these substances seems to double their effect. In all these cases time should be allowed for the reaction of the different principles contained in the bodies mixed, before the employment of the compost.

In the countries where the use of bones is great there are peculiar mills; we cannot dwell here upon that subject; but merely advise where the usage is novel to be content with mill stones, and iron wire sieves for separating the dust from the lumps.

The consumption of bones on the soil at the average quantity of 15 hectolitres per hectare in four years, will be rather less than 4 hectolitres per hectare per annum; a smaller quantity than that of phosphate of lime in the usual dressing of ashes, and leaving less lime in the land than the common lime manure.

This enables us to assess the cost of bones for our agriculture; at the English price this kind of compost would cost us 60*s* per hectolitre per annum; but the price in France may for many years yet be much lower, as, excepting in the neighbourhood of Paris, bones are almost valueless and useless.

This improvement then has scarcely commenced in France; at Paris, after what they use in the manufacture of bone black, and sal-amoniac, there are still two-thirds lost. In some other parts also they make bone black, but all besides is useless; however, the waste is immense. Two hundred thousand horses, and a quantity nearly equal to that, of oxen and sheep not consumed, which die every year, together with the bones of those animals which supply the average quantity of two ounces of meat to each individual per diem, will produce 2,400,000 hectolitres of powder per annum, which at the English price would yield 36,000,000*s* annually; this quantity of bone dust would manure 600,000 hectares every year, of which the surplus product would enrich both the public and individuals, and the ordinary composts would be used to increase the products of other land.

Thus we see a slight alteration in conduct with respect to an apparently unimportant article, if followed out in an extensive country like France, may become an important element of public prosperity.

USE OF BONE BLACK.—What we have said respecting the use of ground bones, may abridge our comments on this article; we have merely to prove that the active principle of both is the same, viz., phosphate of lime; and nearly all that has been said respecting the former will apply to the latter.

We have seen the power of phosphate of lime on vegetation in the preceding manures; here where it is purer it should be more active, and so in effect it is; for the dressing of bone black is much less than that of mere bone powder; otherwise the circumstances, attending its use and its action on the soil, are the same as those of the two last articles. It does not suit the calcareous soil, but does extremely well for a well drained land devoid of any such principle; its effect is not lasting, it acts in small quantities, it should not be employed on a moorish soil, it should be used on one rather moist than dry by nature; and farther it is composed of nearly nine-tenths of phosphate of lime; and the remainder consists of soluble substances, viz., sugar, molasses, a little albumen from the bullock's blood, and particles of carbon resulting from the combustion of the gelatine; but the fertili-

zing power does not reside either in the soluble and saccharine parts, or in the albumen; for before its use, by exposure to the air and weather it loses the greater part of these, but does not lose one tittle of its power; for it is known that large quantities of it, which had been exposed during many years in the yard of a sugar-refinery at St. Petersburg, and consequently had lost by decomposition all the animal and soluble particles, fertilized as potentially the fields of La Vendée as that from the refineries of Nantes.

Neither is it to be believed that the carbon produces, of itself, much effect, or we should find its action extend to calcareous soils, which is not the case; phosphate of lime then is in this substance, as it is in ashes and powdered bones, the most active agent.

French agriculture, which is so much to blame for wasting so much bone as she does, in some measure compensates for her fault by employing the bone black made in France, and also that of other countries.

The departments of Maine et Loire, La Loire Inferieure, La Vendée, La Vienne and Les Deux Sevres manure part of their soil with this substance; in 1828 175 vessels imported it to Nantes, which with Paimboeuf serves as the entrepôt for it from other countries; its price has risen from 1f to 7f per hectolitre, which is not yet half that of the bone dust in England and this increasing will cause the importation of still larger quantities.

Another analogy to the powdered is to be found in the action of the burnt bone on buckwheat, hemp, flax, cabbages, radishes and beetroots; also on the meadows and grazing grounds and the benefits it produces to the winter and spring corn.

The quantity employed is from three to ten hectolitres. With the first of these dressings its effect cannot be expected to survive the second year; with the second it will of course last longer.

Husbandmen have found its power too quickly exhausted, and complain that it does not produce its effects with certainty; on the other hand, dishonourable dealers have adulterated it; these occurrences have disgusted some: still the sale of it increases every year, and we have reason to believe that its price will also; unfortunately the quantity is small, and the Paris sugar-refiners have discovered a process by which it may be made to serve their purpose several times.

This scarcity and the high price may produce most happy results, since it may lead to the use of bones in their natural state to that of carbonized bones as at present.

This time, so advantageous to our agriculture, will be much hastened, if the opinions we have, as we think, demonstrated be generally admitted, viz., those of the identity of the composition of ashes, ground and burnt bones, and of the power of the phosphate of lime on vegetation.

**PEAT AND COAL ASHES.**—These are regarded in Flanders, in the department du Nord and in Belgium as among the greatest vegetative agents. Among the peat ashes, those of Holland or of the sea, bear a distinguished place: they are in much higher esteem than those of common peat; the quantity required being, as one of the former to five of the latter, to produce the same effect. They are formed by the combustion of the peat of Holland; this which has been formed under the sea, or at least has remained there for a long time, burns better, and above all, yields white ashes of a superior quality; doubtless these contain a greater portion of saline and of calcareous matter.

These last, as well as the peat and coal ashes, are employed on artificial grasses, hemp, spring crops and on the meadows which are not watered; they are become indispensable in the arrondissement of Lisle, where lime is seldom used as manure; in the others, especially in Avesne, they are often mixed with lime, in the proportion of one-half or one-fourth of the whole compost.

Dressings of ashes and lime, are more particularly employed on meadows and spring corn, in the same quantity as if they were of pure lime, i. e. 4 cubic metres or 40 hectolitres per hectare, every ten or twelve years.

The ashes of the sea act freely on clovers; they use from five to ten hectolitres of them to the hectare, and the clover yields a superb crop infallibly; the corn which succeeds it partakes of its fecundity.

The high price which the Flemings were obliged to give for these ashes, induced them to seek, and they have found a cheaper manure; they obtain from Picardy, and from their own earth, a mineral product to which is given the name of black or red ash, which supplies the place of the sea-ashes, too dearly sold by their Dutch neighbours. We will treat of this hereafter.

(Continuation in our next.)

## THOUGHTS ON DRAINING AS THE SPEEDIEST MEANS OF FERTILIZING THE SOIL.

(From the Quarterly Journal of Agriculture.)

It appears, then, from the observations which we made on the extension of draining in the last number, that much of the arable land, and the greater proportion of the natural pasture, in Scotland, require extensive and thorough draining. Could this truth be successfully pressed to conviction on the minds of proprietors and farmers, we have no doubt that thorough draining would be generally applied as a remedy without delay; for the experience which discovers the increase of produce by draining, becomes at the same time satisfied of its profitableness. That this conviction is really spreading apace, may be inferred from the great extension of draining which has been effected within these few years, particularly the last ten. What have been the immediate causes which have led to this improved practice, it is not our present purpose to inquire—that will form a subject for future investigation—our present purpose only being to state the fact as it exists. Whatever these causes may have been, this is their cheering result, that, amidst unprecedented difficulties, our agriculturists, by their own elastic energies, still continue their efforts to fertilize the soil. This result, undeniable as it is cheering, strongly urges us to prosecute the important subject which occupied our "thoughts" in the last number, which, we have the satisfaction of learning from various quarters, has excited no inconsiderable degree of attention, that our practical friends may still farther be induced to pursue the means which have produced so favourable a result.

It is the practice of physicians, that whenever a disease is known, a remedy is immediately applied to effect its cure. It is desirable that a similar rule of practice were adopted by farmers, as well in regard to the soil as to live-stock. It is desirable that where the disease of a wet subsoil is observed, draining should be immediately applied to effect a cure; and as a disease is only known by its symptoms,

that farmers would endeavour to acquire the symptoms of a wet subsoil, in order to be qualified to apply the infallible remedy of draining. As a practitioner, the farmer has greatly the advantage of the physician, for draining is a *specific* against all the injurious effects of a wet subsoil; whereas the most skillful application of medicine by the physician may be unavailing towards the cure of the disease. There being, therefore, the assurance of success attendant on draining, it is remarkable, that during the progressive improvement of agriculture in Scotland, one farm should now be left to be drained. Draining is no doubt a laborious, and expensive, and slow operation, but as, when properly executed, it invariably insures its own reward, it is remarkable, we repeat, that a single farm, instead of whole parishes, should now require it. Want of capital may deter some from undertaking it; but is the condition of the farmer so reduced, that credit cannot be obtained for him to prosecute even a safe and permanent undertaking, or his landlord so lost to a sense of his duty, as to refuse his support to a measure which cannot fail to promote his interest in common with that of his tenants? We cannot believe it. We rather believe when the will prompts, a way will soon be discovered by the perceptive faculty. We fear that apathy enervates the hand of one, and ignorance lulls the mind in conceit of another class of farmers. The allegation, though severe, appeals for its justification to the actual condition of small farms, which employ from one horse to two pairs of horses. Such farms are generally very low in the scale of condition, the ploughing is being seldom thoroughly executed; the horses being stinted of corn are kept in poor condition, and the ploughman, if he is not the farmer himself or his son, is a man who is hired, not because he is a first-rate holder of the plough and guide of horses, but because he has accepted the lowest rate of wages in the market. Having been hired on the lowest terms, he thinks his lowest rate of service a sufficient equivalent for them, and his time mispent in grooming a pair of horses which he considers only fit for the tan-yard; and yet he would any night cheerfully spend much more time than would be required to groom his horses properly, in the smithy, the news-room of "country politicians," or in the bothie of a neighbouring farm. The fences, if any on such farms, are generally neglected, and only repaired when necessity compels; and a short stump of a drain is at length made in a part of a field, only after it has been long seen that water stands on it in a pool, the horses sink in it, or it will yield no produce. The roads and spaces about the houses and steadings are always rough and dirty, and devoid of comfort to man and beast. The occupants of such farms have been stewards, or fornan-ploughmen, on large farms, who have saved a little money. They are not deficient in skill of farming; on the contrary, it is their skill in their former trusts which entitled them to ask and obtain such wages as enabled them to save money to take farms; but unfortunately for the continued exhibition of their skill, anxiety to become their own masters, and be the masters of others, before old age overtakes them, induces them to engage in farming before they have accumulated a sufficient capital to furnish their houses in the style of farmers, and to stock and carry on until the first crop is reaped, much less to improve their farms. The sons of such occupants seldom follow their fathers' profession. Witnessing a continual struggle for existence, they are glad to escape a thralldom which they have long experienced. Of a truth, there is no class of the agricultural population more to be pitied in their existent condition than this.

The large farmer can obtain credit, and can live above want, upon the small profit derived from large quantities of produce passing through his hands; the labourer receives his weekly wages, or his earnings by piece-work, which, if he keep his health, is an adequate income, to secure him and his family the necessaries at least, if not the luxuries of life; and the ploughman is insured his yearly income, who, after finishing his day's work, in a decent manner, can retire to his happy dwelling, relieved from care at least, if not from toil; but the class of small farmers of which we are speaking, have none of these resources to support them. All the produce which can be spared to take to market is but little, certainly not more than is requisite to settle the demands of rent and expenses, and not sufficient in quantity to leave a profit. Raised by penurious management, the produce of their farms is much less than it might be, and the quality of that produce is inferior. Lowly supported as they and their families are, and slovenly as the land is worked, the requisite live-stock which is kept on them bears a large proportion to the extent and produce of their farms. Theirs is a life of continual care and anxiety.

Another class of small farmers is widely different in condition from the one described. Having occupied land as life-renters, or on leases of long duration, at small rents, they have generally accumulated fortunes, which are always selfishly expended on stocking large farms for their sons, or lent out at interest to landed proprietors. As many of the sons of this class become farmers as the father has means to stock farms. In character this is a respectable class of farmers, and they form the connecting link between the large farmer and the ploughman. But having been bred up in the old school of farming, or succeeding to old-fashioned sires, their ideas become as contracted by constant residence, as their small farms; and the excessive prudence of this class forms as great a bane to the agricultural improvement of the country as the one formerly described. They will not spend a shilling until they can "clearly see their way" of regaining it with advantage. They will remain as they are, rather than "fly to ills they know not of." As to mending farm-roads, running fences, enlarging steadings, or draining fields, except to obliterate a pool of water, these are outlays of money which they conceive can never be recovered, and which ought only to be incurred by landlords, although in most cases they are richer than their landlords; and, in all cases, comparatively, can command more ready money than any landlord. Their horses and cows are in better condition, because this class of farmers are not so fond of overstocking as the other. The domestic comforts of the farm-house, though frugal, are also unexceptionable.

It is impossible to state what extent of land the small farmers in Scotland actually occupy; but what with them and the large farmers who neglect draining, the greater area is certainly occupied with the non-improving class of farmers. But, comparatively, there are fewer small farmers in Scotland than in England or Ireland. Is it fair to conclude, then, that the agricultural improvement of Scotland is greater, comparatively, than that of England or Ireland, just because there are more large farmers in it, since it is only by the large and most arable farmers that improvements have been prosecuted in that country? It is not evident at first sight what inducement prompts a large farmer to improve his farm which a small has not. Both apparently have scope for improvement according to their means. But a large farm does possess advantages for im-

provement which a small one cannot have. The *material* for labour is comparatively smaller, and is more fully employed all the year round, on a large farm; because a large farm is most likely composed of different kinds of soils, the labouring of which is so accommodated to the different states of the weather, as to economise, and not lose time. Besides, a very small profit on each portion of the large quantity of produce of grain and live-stock sent to market from a large farm, will generally leave a surplus over the expenditure of rent and expenses; and economy in labour, at the same time, reducing the expenditure, that surplus is increased, and, in such cases, is almost always disbursed in improvements, such as draining, liming, &c. Such advantages can never be derived from a small farm; but they are the chief resources which supply the means of improvement, without which farming could not repay its own cost. In short, a large farm is always a cheaper bargain than a small.

Now we wish to avoid the imputation of promulgating the heterodox doctrine, that small farms cannot be improved; on the contrary, we know they may be effectually improved. We know many instances of their improvement in Scotland, and the fact is in proof at this moment in Ireland through Mr. Blacker's exertions. But after what we have stated of the mode of working them, we maintain they cannot be improved but at comparatively greater cost than large farms. The possessors of large farms will thereby always have the advantage over small farmers in the markets, because their disposable produce being larger, at a smaller cost, their profits will be greater at the same prices. Nevertheless, let the small farmers improve the stamina of the soil by draining, and they will in due time discover that the *material* of labour which they now employ, notwithstanding that it will always be proportionably great on small farms, will then insure a larger return of produce. Increased produce will insure a profit, and a profit, however small, will form a disposable fund for further improvements, will thus give a command of ready money, and obviate most, if not all the evils, at present arising from small farms.

It is clear, then, from our first paper, that draining might be much extended in Scotland, and it appears from what has been stated in this, that one great bar to its extension is the negligent farming on small farms. It now remains to be shown, that the most speedy means which can be adopted for *fertilizing* the soil, is the extension of thorough draining. We say *thorough* draining, meaning thereby the thorough drying of the soil, whatever may be the mode adopted for accomplishing that object. That being the object which it is wished to be acquired, the means used for its acquisition should be adapted to circumstances. There appear to be only two methods of thoroughly drying the soil. One is what is called Elkington's method, which searches after, and detects the seats of large quantities of water which are naturally pent up among deep, impervious, and hidden strata. The water, in finding its way to the day, greatly injures the soil. Unless these springs are removed at their sources, it will otherwise be impossible to render the soil dry. This method of eradictory draining has long been practised, and its beneficial effects may be observed in every *arable* district where no large springs are now seen to injure the soil, although very much good as yet to be effected by this method of drying the soil in every *pastoral* district. This method has also been very successfully applied to the draining of bogs; indeed, it is the principal means of drying them. But by far the greatest injury accrues to the soil—the great arena

of agriculture—from the stagnation of water on its surface, poured from the atmosphere in rain, snow, hail, and dew, or derived from rivers, in inundations and percolations through pervious strata. The attempt to remove this leprous evil may be said to be only begun in Scotland. It is strange that the remedy should have been so long of being suggested! So long as the more obvious and apparent evils of springs attracted the attention of the husbandman, the subterraneous plottings of stagnant water passed unobserved. Now its baneful effects are deprecated on all hands, and draining is universally acknowledged to be the only remedy which can remove them. Not that the acknowledged remedy has yet been universally applied; but a serious acknowledgment of an evil will in time find an adequate remedy for its removal. But the Elkington method of draining is not the most advisable remedy for the removal of stagnant water. Such a remedy, like the opening of a large blood-vessel, might more quickly draw off an arterial hemorrhage than any other, but it would not remove a local inflammation. The topical application of leeches is better suited to heal an irritated surface. So another kind of draining which has been of late years adopted in this country, is better suited than Elkington's to effectually remove stagnant water from the soil. This kind has not yet received an appropriate designation. It has been called wedge, tile, frequent and furrow draining, none of which conveys the idea of its entire mode of action. Wedge-draining is so termed, because the drain is made so narrow at the bottom that a portion of the substance used to fill it is wedged down to form a conduit under it for the current of water to pass through. But this draining is only strictly applicable to strong clay soils. Tile-draining can only be properly called so when tiles are used, which should never be where stones can be obtained in sufficient abundance. Frequent draining is so termed, because it presents so many drains as to afford *frequent* opportunities for stagnant water to escape; but as wedge and tile draining may both afford equal facilities, and the actual frequency of the drains depending entirely on the nature of the subsoil, the term seems not very appropriate. Furrow-draining is so called, only because it is formed in the furrows; but the furrows may not always occupy the best position for thoroughly drying the land. We apprehend that *thorough* draining is not only the best descriptive term for that drain which removes stagnant water, but it also affirms what the drain really effects—the thorough drying of the soil. An appropriate designation for any term of rural improvement is a matter of importance, for country people are apt to prejudice of the nature and utility of any improvement before they have seen it, from the idea which its designation suggests. For example, let *tile*-draining be recommended to a farmer who had never seen tiles used for that purpose, and he will immediately ask, from the obvious sense of the term, if tiles are better than stones for draining. Or let *furrow*-draining be recommended to him, and he will tell you that his land is not wet enough to require a drain in every furrow. On the other hand, let *thorough* draining be recommended to him, and he would understand it at once, and his conception of it would be correct, that his land would be thoroughly drained by it.

Now let us inquire what thorough draining is, and how it operates. It may be best described by what it is not. It is *not* tile draining, for no tiles may be used in its structure. It is *not* furrow-draining, for it may be improper to run a drain in any furrow. It is *not* wedge-draining, for the drains may not be best

cut in the wedge-shape, nor may any wedge be used in them. It is not frequent draining, for some kinds of subsoils can be dried by placing the drains at a considerable distance from each other. And it is not the Elkington method, for it may not require deep drains; and it is not of a ramified pattern, because it is not intended to cut off the sources of springs. Thorough draining may therefore be defined as *that kind which removes surface water from subsoils, by placing shallow, though substantially constructed drains in parallel lines, at such distances and in such a position, as thoroughly to dry the soil without injury to their structure.* According to the spirit of this definition, thorough draining admits of drains being filled with tiles, stones, or other appropriate materials, provided they are substantially constructed; it admits forms of drains of any shape, whether wedge-shaped or otherwise, provided they are placed in parallel lines and not cut too deep; it admits the placing of drains in any position, whether up and down the slope, or along its face in a diagonal direction, provided the inclination given prevents the destruction of their structure by the force of running water; and it admits the running of drains in any place, and at any distance from each other, provided they be so near to one another that the water can have easy access to them from every direction. Thorough draining acts as an absorbent like a sponge, presenting in all directions numerous channels to imbibe the superabundant moisture. No sooner does rain or melted snow percolate through the ploughed soil, than thorough draining offers a safe conductor to receive and convey it away.

But another indispensable inquiry remains to be instituted before we can clearly arrive at the final conclusion, that draining is the speediest means of fertilizing the soil. We have to ascertain that state of the soil in which draining shows its greatest efficacy as a fertilizer of soil. Most people accustomed to field labour imagine that they can easily indicate the state of the soil which requires draining, and the exact places in which drains should be formed. Many egregious mistakes have thus been committed in draining, and particularly in thorough draining. Any one is competent to observe where a spring bursts out to the day, and where the soil is partially dark coloured when ploughed, and where it is in a pulpy state at the wettest place; and any one can detect the well-eye bursting out its waters near the bottom of a bank of natural pasture, surrounded with a verdant margin, and originating a train of those plants which luxuriate most vigorously in spring water, such as the florin, some species of poa, and the water-cress; but a palpable error would be committed, were any one ignorant of their nature, to attempt to cut off the sources of such springs. To accomplish that effectually requires a previous knowledge of the nature of the alluvial and harder rocks, among which springs generally originate, and especially a competent knowledge of those in the particular locality. Although springs clearly indicate an obvious necessity for draining, which, if effectually executed, will always recompense the cost, stagnant water under arable soil is not so easily detected. The evidence of its existence is not so much pathognomonic as symptomatic, to use still the phraseology of medicine. The crops commonly grown are most correctly symptomatic of stagnant water. Through its baneful influence the straw of white crops is short, small, fine, soft, easily broken from shortness, not brittleness of fibre, and stained as if with rain. The grain is small, and although at times well enough filled, has always a puny and palish appearance. Cutting grass is also small, fine, not long, and much inclined

to abundance of flowers, and of course to seed, which are both small. The hay is always light for its bulk. Pasture grass is short, stiff, not thick set nor fine, and of a bluish grass green colour. It does not fatten live-stock well, particularly in tallow. Sheep thrive worse than cattle on it, their wool being light, and to appearance dead. Little milk and butter are derived from it. Turnips are small, hard, and fibrous, and their leaves grow nearly erect, and are often margined with red. Potatoes are small in the stem and short, the tubers being small, watery when boiled, and the crop never very abundant. The symptoms from the land itself are, that it is apt to get foul with couch-grass, which, when hand-picked, cannot be gathered free from soil, but is easily broken, fine, and very adhesive to balls of earth. This weed renders the ploughing and harrowing of such land, particularly the harrowing, very tedious, and when both operations are repeated till the soil is free of it, the soil by that time becomes too much pulverised and deaf. The furrow slices of land rendered thus deaf cannot stand up on their own feet, but soon clap down, become obliterated, and assume a wasted and hungry appearance. The dead roots of stubble, when ploughed after harvest, do not adhere firmly to the soil, but are easily rubbed out by the coulter and mould-board, and carried forward in bundles before the coulter. The symptoms attendant on the application of extraneous matter to land in that state are, that farm-yard dung, whether fermented or fresh, does not quickly incorporate with the soil. It remains in an inert state, lumpy, and moulders away into a blackened mass. Bone-dust does not quickly incorporate with the land, therefore does not quickly decompose in it, nor does it ever impart that greasiness to the soil which is its valuable characteristic as a manure. Lime does not quickly mix with it, losing its caustic properties, and soon becoming like mortar, and of course *effete*. Hedges which are planted in it become stunted in growth, and covered with moss, and most of the kinds of forest trees are soon in the same plight. Plants indicative of dry soil never grow in it, but give place to those which thrive in moist earth, such as the horse-tail, dead-nettle, sprats, some species of the rush, thistle, &c. Besides these obvious symptoms, there are others more latent, which are only obvious after having been detected; such as the ground when felt in walking over or being trodden on. It is difficult to describe this sense of feeling by words. The ground feels less firm, more likely to slip under the foot by the arable portion sinking into or sliding upon the subsoil, and in some cases it will sound hollow on being jumped on. In such suspicious circumstances we have frequently seen drains release large quantities of stagnant water which had lain concealed and encased among beds of impervious clay. In short, when we come to examine thus minutely into the state of land, we will find a very small portion of it indeed that can naturally claim exemption from draining.

In considering this enumeration of evils, and the catalogue is a long one, it may be observed that most, if not all of them, are symptomatic of bad land, as well as that under the influence of stagnant surface water. The observation is quite correct. But it should be borne in mind that stagnant water turns good land into bad, and that bad land is so chiefly because it is permitted to remain injured by stagnant water. It is true that all sorts of land are not alike in their nature, nor alike in quality,—some are naturally good, and some naturally bad,—but in all the natural classes of soils which are easily affected by draining, and they are the most numerous, the good

of them are good, because they are naturally drained, being composed of, and resting on pervious materials; and the bad are bad, because they rest on retentive subsoils; and the more retentive subsoils are, the worse the soils which rest upon them. Soils, therefore, are not naturally so dissimilar in quality for the purposes of husbandry, as that they are rendered so by being naturally placed on dissimilar subsoils. Land, if of considerable depth, may, however, be very good although it rest on a retentive subsoil; but the good soil below the reach of the plough forms, in that case, the subsoil, and not the retentive matter, which may be at a considerable distance below it. The best natural soil would become bad if placed on a retentive subsoil. It is the nature of the subsoil, therefore, which stamps the quality on the soil for the purposes of agriculture, for the natural quality of soil is, in all events, much enhanced by the art of husbandry. Pure carse clays may seem to form an exception to these remarks, but attention to their nature, as they are really affected by stagnant water, will show that even they form no exception. Pure carse clay soils are generally formed in deep beds or in masses several feet in thickness, the pure clay itself forming the subsoil to the pure clay which is subjected to the plough. When water finds its way through arable soil, it descends to the subsoil, which, when impervious, it cannot penetrate, but slides down both sides of the ridges to the open furrows. But the arable part of clay soil can only be penetrated by water immediately after it has been ploughed; for soon after ploughing it consolidates, and the water then can only run along the *impervious surface* to the furrows; so that pure clay soils can never be said to stand over stagnant water: and should drains be placed in the furrows and open cuts formed in the hollows elsewhere on the surface, no surface water could long remain on them. Could a rounded form be given to the subsoil of the ridge upon which the sole of the plough moves, and that subsoil rendered smooth by the lower edge of the furrow slice, being cut clean with the near approximation of the points of the coulter and sock, the surface water that at any time might reach the subsoil, would pass easily off to the drains in the furrows.

Having contemplated the evils arising from water becoming stagnant under arable soil, let us now contemplate the reverse of the picture, the pleasing and valuable effects of draining. The existence of moisture being most easily known by its effects on the crops which are commonly grown on the fields, the benefits of draining are also first exhibited by them. The straw of white crops on thoroughly drained land shoots up strongly from a vigorous braid, is thick, long, and, at the same time, so stiff, that the crop is not easily lodged. The grain is plump, large, bright coloured, and thin skinned. The crop ripens uniformly, is bulky and prolific, is more quickly won for stacking after being cut, is more easily thrashed out, winnowed, and cleaned, and produces fewer small and light grains. The straw, also, makes better fodder for live-stock. Cutting clovers become strong, rank, long, juicy, and the flowers, though fewer, very large and bright of colour. The hay is heavy for its bulk. Pasture grass stools out in every direction, covering the earth with a thick mass of rank vegetation, which produces fat and milk of the finest quality. Turnips get large, plump as if fully grown, juicy, with the skin smooth and oily. Potatoes are long, and strong in the stem, with tubers large, with skins easily peeled off, and mealy when boiled. Stock of every kind thrive, become gentle tempered, and fatten easily, particularly sheep, which improve both in

mutton and wool. Land is less occupied with weeds, the luxuriance of the sown crops choking their growth. Summer fallow is then easily cleaned, when practised on strong soils, and much less work is required to put the land in proper trim for the manure and seed. All manures quickly incorporate with soil when drained. These all are symptoms of good land, observed on the same soil which formerly exhibited symptoms of bad; thus proving that by draining is derived the same results from bad land (that is, from the natural surface, whatever may be its component parts, when it rests on a subsoil naturally so retentive as to detain the surface water which reaches it until it stagnates), that are derived from good (that is, from the natural surface, whatever may be its component parts, when it rests on a subsoil naturally pervious to surface water). Can facts stronger than these be adduced to recommend the adoption of draining? Can statements stronger than these be produced on any subject to make out a clearer case in its favour, than have been now produced in favour of draining as a fertilizer of the soil? To hesitate, therefore, to drain land, is willingly to hesitate to confer benefits on one's self. None need urge the plea of inability from what of capital to undertake even the expensive operation of draining, since its effects are immediate as well as compensative. Every one can do a little to begin with: and every year thereafter, the draining, however small, will increase the means proportionately to extend similar operations in future. Besides, let a farmer think of the happiness which he is daily storing up for himself, in the contemplation of the enlargement of his means, from the judicious application of his skill and industry on that soil which is the source of his existence. At any rate, should the experiment fail, and disappoint his fondest hopes, it affords greater satisfaction to the mind, and confers a higher honour on the conduct to yield to the burdens incurred by improvements, than to sink under the obloquy of indolence, to encounter the charge of ignorance, or to suffer the imputation of revenge even against the real, and it may have only been, the supposed, unkindness of the landlord. If time permit by the lease, let him rather exercise a truer independence of mind, and show it by improving his land by draining, which will, in return, as surely as the effect follows the cause, improve his own circumstances, and place him in a condition of independence, above the request of a favour from his landlord. And should he have done all that industry and skill can perform, and still continue to struggle with pecuniary hardships, he then places himself on the high vantage-ground, from which he will be able with effect to demand the alleviation of his condition. Let him depend upon it, that that landlord must be an exception to his class, who would long withstand the just claims of unrewarded industry and skill.

But it is not to be understood, that draining is the only fertilizer of the soil. Ploughing, dung, bone-dust, lime, are all fertilizers of the soil; but without draining, as the precursor and the foundation, all "these appliances and means to boot," will encounter many difficulties, and raise but a flimsy superstructure. The action of all these "appliances" on the soil after it is drained, would form an interesting inquiry for another paper.

The best sites and positions for drains should now occupy our attention; but the subject is attended with so many practical difficulties, that it is impossible to explain them in writing. Many simple cases, it is true, both in spring and stagnant water-draining, may occur in every man's practice, in



which he may with ease judiciously apply the Elkington and thorough-draining systems; but in most cases neither of them is easily applied, particularly in the less obvious cases of thorough-draining. It is not sufficient to run a slim cut in every furrow, and fill it up with a few tiles, and hurry back the earth upon them. The furrows may not lie in the proper direction, and they may have too great a declination to drain the land thoroughly. It is *effectual* draining that is required, and not the mere cutting up of furrows. This constitutes an important distinction. When a farmer is not well acquainted with this distinction, and has a considerable quantity of land to drain, on which he wishes to pursue the thorough system, we would recommend him to employ a professional drainer to lay out the drains for him in the first instance. The amount of fees to the professional drainer will be but trifling, compared to the advantages for ever to be derived from his directions. The few pounds of outlay in this way will be lost among the many which they will surely and quickly return. Knowledge thus acquired from fixed principles, which have been deduced from experience, will enable the farmer himself to assume with confidence the character of drainer; but without the guidance of this knowledge he will miss his aim, and whilst he is thus injuring his land, he will be draining his pockets.

But although it is impossible to indicate in writing, the exact positions of drains on any class of soils, yet a few hints on those which admit of the greatest application of draining may not be unserviceable to the young farmer. Correctly speaking, pure homogeneous clays cannot be *drained*, draining literally signifying a percolation of water through a pervious medium. The only mode of keeping clay soils dry, is by the removal of surface-water, which may be completely effected by open cuts on the ground at the hollowest places, in conjunction with small drains in the furrows between the ridges. Hitherto open cuts only have been used on clay land, but now-a-days drains in the furrows are strongly recommended to co-operate with them, and the recommendation, when attended to, has been accompanied with as much success as the inordinate breadth of ridges will admit of. Ridges of clay soils are generally formed broad, and often crooked,—broad, because the land had to be many times gathered up from the furrows to keep it dry; and crooked, because they had been formed at a period when a long team of draught animals were attached to the plough, which, on reaching the ends of the ridges, required a long sweep to turn on. But furrow-draining clay land will no doubt have the effect of altering the shape and form of its ridges.

We are aware that the alteration of clay ridges is attended with considerable danger to the succeeding crops, and is therefore seldom attempted; but we believe that danger follows the alteration, only when the state of the land so altered has thereby been changed, for the worse in respect to the facility of being kept dry. It is in all cases desirable that ridges should be straight, and also so narrow as to afford as many outlets as practicable to surface water. Of the two methods of draining formerly enumerated, that of Elkington is inapplicable to pure clay, because the impermeability of clay to moisture prevents the collection of springs in it; and of the different kinds of thorough-draining, the furrow seems the only one suitable to it; because pure clay being generally a level alluvial deposit, the direction of the furrows in it follows the only line of declination of the ground, and therefore the only line suitable to draining. The furrow-drains

should be shaped according to the nature of the materials which the clay can supply for filling them with. Since pure clays supply no hard-stones, which are the most proper materials for filling drains with, other substitutes than stone, which, when inconvenient to be brought a long distance, must of course be provided. The substitutes are clay, rough sods, peat, sand or gravel, and tiles. Sand or gravel is very seldom found associated with pure clay, and therefore cannot be expected to be found in any quantity. Worked clay may be formed and used as wedges, the opening under which permits the flow of water. This is called "plug-draining," and requires a particular kind of apparatus for its construction, which has been described in vol iv. p. 501 of the Quarterly Journal of Agriculture. Rough sods when a little dried, form light, tough wedges for drains, when placed with the grassy side downmost. Peat is a formation which is frequently found in large quantities on pure clay. When dried and hard it is very impervious to moisture, and therefore forms excellent material for drains in clay land. And in no class of soils are tiles so applicable to draining as in pure clay; and in it they are accordingly used in large numbers. They are better than any of the materials commented on for forming the open conduit at the bottom of drains. But the method in which they are usually employed is objectionable. They are laid in the bottom of drains, on their sharp edges, and then heavy materials placed above them. Such a practice must have undoubtedly originated in an inconsiderate attention to the nature of clay, however tenacious it may be. The circumstance of the bottom of the drain feeling quite firm to the foot when formed, may have led to the belief that it would always remain so; but the fact is, that when water has run for a time on clay, a portion of its upper stratum becomes soft and pulpy. The sharp edges of the tiles soon cut through this clayey pulp, and the weight of the materials above them acting as a constant weight, sinks them still further, and squeezes the pulp at the same time up into the bosom of the arch, thereby at length either closing up the orifice altogether, or separating it into detached portions. To obviate this inconvenience, tiles have been formed with broad phlanges or shoulders to rest upon, and which no doubt will prevent sinking better than sharp edges; but the most obvious remedy for the evil is laying firmly in the clay as a pavement, soles of tile or slate for the tiles to stand upon independently. Should the soles be made to sink with the weight of material above them, which is unlikely, on account of their broad surface, the tiles will sink with them, and thus keep the conduit always open. Nor should tiles be perforated with holes, as they only serve to render them weaker, and especially as the lines of space between them and the soles on both sides are quite sufficient to convey away all the water that will find its way down the sides of the drain; the holes being thus unnecessary. Dried peats, dried sods, tan bark, gravel, sand, whichever is nearest at hand, form excellent filling above the tiles, and should they be at a great distance, course but hard bricks should be made and burnt on the spot. The breadth of the drains at top and bottom should of course be much narrower when these materials are used than with stones.

Pure sandy soils, though apparently of an opposite nature to pure clays, are not so easily drained as might be supposed. Indeed, it might reasonably be supposed, that they should require no draining at all. But they, like clay, are a level alluvial depo-

site, and when free of, and do not rest on gravel, retain water for a considerable time. The texture of large flats of sand is very fine-grained, constituting what is commonly called *deaf* sand, which, when a little water is thrown hastily upon it, consolidates, and then absorbs any more moisture very slowly. Very frequently this sand rests upon carse clay as a substratum, and then, when not of much depth, it constitutes *quicksand*. Furrow-draining will render these sandy soils completely dry, although a drain in every furrow may not be requisite. Whether stones or tiles are used for their construction, neither of them should be employed without soles, otherwise the fine particles of sand taken up from the bottom of the drain, and carried along by the water, and deposited in the eddies, will in time fill up the conduit. Besides, stones or tiles without soles, would inevitably sink out of sight in such a sandy bottom. When quicksands are met with, the drains should be regularly built through them, with the stones resting on flags, the spaces between the stones teathed up in the face with tough turf, and the conduit made large. The turf prevents the ingress of fine sand along with the water from the quicksand into the drain.

Gravelly, sandy, and loamy soils, resting on gravelly subsoils, are naturally so dry as to require no artificial draining, the gravelly soil acting the part of a universal superficial drain much more effectually than any of the systems of draining enumerated. Even a clay soil, if not too thick, resting on a gravelly subsoil, which is a rare arrangement of soils, requires no draining. A naturally porous subsoil is therefore better than any species of draining, inasmuch as it presents at all points channels for the conveyance of water, such as, for example, gravel, when a subsoil, generally appears in beds of great thickness, and is therefore capable, at every point where it is in contact with the soil, of conveying away any quantity of water that might fall from the atmosphere. Soils resting on gravel are generally prolific. A hazel loam of from eighteen inches to two feet in depth so situated, is perhaps the finest agricultural soil that can be desired. Every species of crop, white or green, can be grown upon it to perfection. Most of the green crops may be consumed upon it. Live-stock can always lie comfortably upon it, and it can be worked with advantage at all seasons, and, of course, worked economically. We have heard a farmer, who possesses a farm of such land, not a large one, for a large farm of such soil is perhaps not in existence, at least in Scotland, offer his ploughmen a roast fowl to their dinner on that day they got their feet wet at the plough.

Soils of moderate depth, when resting on rock, cannot be artificially drained. Stratified rocks, with a considerable inclination, and fissured rocks, form safe drains for soils; on the other hand, amorphous rocks of close texture, with little inclination, form the most impracticable subsoils of any material. Fissured and stratified rocks support soils of fine quality, whereas fine-grained impervious rocks render their soils almost sterile.

Instances of clay, sandy, and gravelly soils, resting on clay, sand, gravel, and rock, may be found in patches of considerable extent over the country; but when all combined, they form rather the exception than the rule to the general state of the soil in this country. The soils generally to be found consist of strong heavy clay, thin in depth, and not fine in texture; a thin clay, with a sharp gravel in it; a brown and black loam, deaf, and of very moderate depth below the plough; a thin, sharp gravelly loam, of a brown or black colour; and a thin peaty

and vegetable black mould, deaf, and loose. All these common soils rest on retentive subsoils, and possess very different characters. Subsoils display less diversity of character than soils. They consist chiefly of dark-coloured clay, coloured by the oxide of iron, more or less compact, and intermixed more or less with stones, from the size of small gravel to that of a man's hand; sometimes containing numerous boulders of various kinds of rocks, principally of the primitive class, and of various sizes; and almost always having thin horizontal contemporaneous veins of sand surcharged with water, interspersed through them. The surface-water finds in these veins of sand the only conduits to pass into the subsoils, where it remains impeding the progress downwards of the succeeding surface-water, until it finds a vent for itself into a drain, or is again evaporated by excessive heat into the atmosphere. The water which is prevented at all entering into the subsoil, by the repletion of the veins of sand, if not evaporated, remains accumulating with fresh supplies upon the surface of the subsoil, in the line of junction between it and the upper soil; which line, when exposed by the incision of a drain, never fails to present unequivocal proofs of the retentive nature of the subsoil, by emptying its copious contents of stagnant water into the drain, along the bottom of which it may be very perceptibly observed escaping like a tiny river. The draining of such subsoils constitutes the difficulty of the art, to overcome which difficulty is beyond the power of the pen. Experience and practice alone can determine whether it should be overcome with one method of draining or another. Were such draining effected, the whole of the presently undrained, but improvable soil of the country, would be rendered capable of receiving the benefits of numerous indirect modes of fertilizing it; the draining would be the first step towards improvement; but if neglected, and the soil permitted to remain as it is, every other means of fertilizing it will only prove comparatively abortive in their application.

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[We solicit the attention of our readers to an extract from a little work entitled "Practical Farming," from the pen of Mr. Hillyard. We have upon more than one former occasion felt gratification in commending the exertions of Mr. Hillyard in the cause of agriculture. He has not however, put forth any publication to the world, which is so practically useful, and within the scope of the least educated of the agricultural community, as that to which we now allude. It is sold at the small sum of 2s 6d. Every farmer, and more especially every one who has a son likely to follow the same employment should possess himself of a copy of "Hillyard's Practical Farming."—Ed.]

Manure is the chief sinew for carrying on good farming. Sir Humphrey Davy, and other scientific persons, have said that the quality of manure is much injured by the common practice of throwing it up into dung-hills, and thus creating so strong a fermentation as to cause the gases, which are the nutritive parts of it, to escape. It may be so; still, I think farm-yard manure, in which there are sure to be the seeds of weeds, ought to undergo a fermentation to prevent their growth. Manure made from wheat straw by stall-feeding beasts, I do not object to being immediately put on the land; but not that made at the barn-door, in which there are sure to be quantities of the seeds of weeds. All refuse that has vegetable

matter in it may, with manure or lime, be turned into an excellent top-dressing for grass land. To lay on ploughed land, it should be burnt, but slowly, or very few ashes will be obtained. Ashes, incorporated with a strong soil, do much good; they create separation, and thus make it work better, and enable the fibrous roots to search more into the soil, to gain nourishment. Lime has the same effect, but I conceive lime to be a stimulant only, and not a manure. Lime gives solidity to light land, the means of retaining moisture, and in some degree prevents the rays of the sun from penetrating so deep into the soil, and drying up the roots. Lime also encourages the growth of clover, but it does not do the good that is equal to the expense, when applied to land that has, for a length of time, had it periodically laid on. It is the common practice in this county to lime and dung the land for turnips nearly at the same time, just before sowing. I think to put on materials that must cause such different effects cannot be quite right, and therefore I think it would be better not to put on the lime till the next Spring, before sowing barley and seeds. Manure is a mine of manure for those who are so fortunate as to have it as a subsoil, but the desire of possessing it is lessened because it generally lies under an inferior surface soil; this applies more decidedly to chalk. If land is free from twitch and other noxious weeds, there is no necessity for a great quantity of manure to produce a good crop of wheat. If twitch has got possession of the land, it will impoverish more than a crop of grain. In most arable fields, or closes, there are different kinds of soil; and thus some parts want more manure than others. In laying manure on, this ought to be attended to; in hollow parts of a field, there is sure to be crop enough, without manure, from the drainage from the higher parts. By not attending to this, I have seen some parts of a field with a very light crop, and other parts so heavy as to be rotting on the ground. The richness of a farm may be estimated by the quantity of good vegetable crops growing on it. The land which produces these has that within it which must afterwards produce good crops of corn. Manure ought to be ploughed in as soon as possible after having been carted on the land. I have seen it laid so long, and thus so exposed to the sun and air, as to convince me that the greater part of the nutritious qualities had evaporated, and that the next crop grown would prove it. Manure dropped by animals (sheep excepted), on pasture land, does very little good at any other time than winter; the effluvia arising from it attracts innumerable quantities of small beetles, that consume all the nutritive qualities in it. If sheep were confined in a littered fold every night, much valuable manure might be produced; but folding in that way is objectionable, since it is likely to produce a complaint the most troublesome and difficult to cure—foot-rot. If there should be a carriage-road in the pasture, sheep ought then to be folded, to prevent their leaving their manure on it. It is a common practice, in Norfolk, to make what they call a mixen. The manure is placed between two layers of mould, and is not turned over and exposed to the air more than a fortnight before it is required for use, so that when applied to the land it has undergone only a slight fermentation. Much greater quantities of good mould might be collected from the road-sides than is commonly taken. Book farmers recommend in some cases putting on fifty loads of compost manure per acre. It is much more easy to recommend than it is to achieve that which is recommended. Six hundred load for twelve acres, which is not a large field, is not easily got together. —*Hillyard's Practical Farming.*

## STATE OF AGRICULTURE.

FIRST REPORT FROM THE SELECT COMMITTEE APPOINTED TO INQUIRE INTO THE STATE OF AGRICULTURE.

Mr. JOHN HOUGHTON called in, and examined.

Marquis of CHANDOS.—Where do you reside?—At Sunning-hill, in the county of Berks, and Dinton, in the county of Buckingham.

What are you?—I farm extensively, and am a receiver of rents.

Do you receive rents for many gentlemen?—I do.

In different counties?—Yes.

Name them?—In the counties of Lincoln, Buckingham, Middlesex, Surrey, Berks, Sussex, Northampton, and Suffolk; and value lands also in other counties.

Where do you farm?—I farm myself, on my own account, at Sunning-hill, in the county of Berks, at Ruislip, in the county of Middlesex; at Flannington, in the county of Northampton; at East Hoathley, in the county of Sussex; and in Buckinghamshire likewise.

You have visited those properties in different counties from time to time?—I have bailiffs at each of them, and occasionally visit them all. I am also receiver for estates where each farm is situate. I have thought it proper to have a farm of my own there that I may introduce a system of husbandry from different counties, that others may see the different way in which land is managed.

How many years have you been employed in this way?—I commenced farming in the year 1822.

What is the state of the farms on those properties now, as compared with a few years ago?—Rents are much reduced, and particularly in the county of Buckingham. An instance I would prove, of a farm reduced from 1,300*l.* a year to 870*l.*

Within what period?—From the year 1814 to the present period.

What is the description of that land?—Principally grass, of the best description.

It is one of the best grass farms in the county of Buckingham?—Yes.

Has this farm changed tenants often?—It has changed in the same family.

What rendered the reduction of that farm so necessary?—From the lowness of farm produce.

Farm produce, connected with the grazing farms?—Yes, as applied to that district.

In what way is the produce of a grazing farm affected at the present time?—Grazing at the present time is much better than what it has been for a time past; meat is fetching a much better price than it did a short time ago, this year, as compared with last year and the year before.

What other causes have rendered it necessary to reduce the rent of this farm?—The increase of poor-rates in the parish in which it is situate.

Is there anything else?—The burdens that press upon the farmer was another thing which I should be very glad to see reduced.

At how many years' purchase was that farm sold?—At 29; rather over, but under 30 years' purchase.

That is one of the finest farms in the county?—It is.

Have you not arable farms in the county of Buckingham, over which you are steward?—Yes, I have.

What is their state now, compared with the state of the grazing farms to which you allude!—On the heavy clay lands the distress is very great, more than it is on the turnip and barley lands, or grass land.

How do you account for that distress upon the clay lands?—From the low price of wheat.

Has the wheat market been falling throughout the different districts of which you have the superintendance?—It has. Within the last few markets we have been enabled to get better prices, but now it is ruinously low.

Within the time you have had the management of those estates, have you seen great alteration on the part

of tenants for the worse?—In some instances very great indeed.

In which counties principally?—I do not know any county more than the county of Buckingham: in some parts of the county of Huntingdon I have seen great distress.

Do you find that the capital of the farmers has been diminishing?—Certainly, in those instances of which I speak I do not think the distress has been so great on the light land farms as it is on heavy; I think the great distress has been on the heavy land farms.

Have the farmers been paying their rents out of their produce, or out of their capital?—If you take the heavy clay land, certainly out of their capital.

Do you conceive in the heavy clay lands to which you allude the capital of the farmer is gone?—It is deteriorated very much.

Having a great knowledge of farming, has it ever entered into your mind what would tend to relieve the farmer from the distress he feels?—Certainly it has.

Have the goodness to state to the committee what your opinion is as to the mode of relief which could be brought to bear on the present distress?—The commutation of title would be a very great thing; another, to allow us the use of barley for our own use on our farms exclusively.

That is as to malt?—Yes, or to use it any way, either for cattle or for malt.

What besides?—I should also consider that we are entitled to a reduction of the county rates, and also a reduction in the assessed taxes; I apprehend the assessed taxes, in point of amount, are very small: from not knowing the laws, many illiterate farmers get into all sorts of scrapes by using a horse or carrier's cart. If a man has a close a little way off, he may mount his shepherd on a horse, or when he is going to market to get home some stock, the surveyor of taxes may get hold of that and surcharge him for the servant, and the horse too; and he perhaps, owing to his ignorance, lets the day of appeal go by.

On this arable farm, in the parish of Dinton, supposing the free use of barley was given to the tenant, what would be his benefit by the year?—It would make about 20*l.* a-year difference to him.

What is the size of that farm?—Near 400 acres.

He would have 20*l.* a-year in his pocket?—Yes, and that would also make a greater saving, taking it in another way, and he would be enabled to give to his labourers a greater quantity of beverage, which would reduce his expense in money.

Do you conceive the great importation of produce from Ireland in any degree detrimental to the farmer? I do not think we could interfere with that. I had last summer occasion to visit Ireland for a gentleman, and I took particular notice of that country. Generally I will state what I saw there, if it is wished. A well-regulated system of poor laws would be a great relief to that country, and to us, in my opinion.

You think that we should be benefited by a well-digested system of poor laws in Ireland?—Yes, under a proper plan.

Is your farm in Buckinghamshire tithe-free?—It is subject to a corn-rent; I have not suffered myself so much from tithe as some of the other tenants have in other places where I have been; two years ago I published a plan for commutation of tithe, which I shall be happy to give to any member of this committee.

Mr. CAYLEY.—At what period did this distress you speak of commence?—It has been from 1828 and 1829, up to the present time; we have been gradually getting worse.

In what condition were the farms in 1822, when you began farming?—Worse than at the present time, but it was only for a short period; prices were very low, and corn was very cheap indeed.

Do you remember its getting better about 1824 and 1825?—Yes, it was much better in 1824 and 1825.

When did it decline after that?—1826 was very a very dry summer, and we were distressed in 1827; we had it better in 1829 and 1830; we had some very wet seasons, and it was very bad indeed for the heavy clay lands.

Taking 10 or 12 years together when was it a very prosperous time for farmers?—If there has been benefit anywhere there has been none on heavy land.

Producing what?—Twenty bushels an acre.

Is there any land in your neighbourhood producing more?—Yes, certainly.

Is there any producing 30 bushels an acre?—Yes.

What is the condition of those that farm that land?—They are badly off; I could name a party in North Wiltshire, near Swindon, where they are dependent on the price of wheat, cultivating wheat largely; so too I was in that neighbourhood last year, and they were very much distressed there, owing to the low price of wheat; I am speaking of the great distress that has to my knowledge occurred where wheat is the staple commodity.

How much rent is paid in districts with which you are acquainted which would produce 30 bushels an acre, and what is the proportion of that to other lands?—But small, compared to Huntingdonshire, and take Caxton upon the heavy strong land; if I were to take an extent of clay lands together, very small.

What proportion does the land bearing 30 bushels an acre bear to the other species of land?—There is a large quantity that will bear 30 bushels an acre, but not the strong poor clay land, of which I am now particularly speaking.

You would not call land poor land that bore about 30 bushels an acre?—No, except where it might for once, if the season exactly suits it; but no practical man can form a calculation upon it as the ground for a series of years.

Speaking of the average, how much land is there in the district of which you are speaking that could on the average bear 30 bushels an acre?—A very small proportion indeed.

Even upon that species of land that bears 30 bushels an acre a farmer cannot make any profit?—I am certain he cannot at the present price.

You stated that the light lands are better off. Why are the light lands better off?—Because they have had an opportunity of growing stock, and wool has made a remunerating price; therefore they are not so much distressed in the Wolds of Lincolnshire, between Louth and Spilsby, as they are in some other districts.

Wool has born a higher price within the last five years?—It has.

To what do you attribute that?—To our manufactures being so prosperous.

Have you heard of any losses from a rot in sheep?—I have lost a good many myself.

Did a rise of price immediately follow that rot?—Not immediately, but afterwards.

Did it follow as soon as the extent of loss could be ascertained?—I think it did.

Would not you attribute the rise in the wool to the rot in sheep?—Yes, in part; but I also attribute it in part to there being such a good trade for the commodity.

Can you speak accurately to the state of our trade?—Yes, I am constantly travelling the country; I have an opportunity of conversing with large manufacturers and have an opportunity of seeing them, and I have visited some of our largest manufacturing towns; and I too have conversed with mechanics.

Since what time has that principally been existing?—More particularly the last year and a-half.

Did not the high price of wool precede that?—No; during the last ten years we had a very great depression in wool. I was a holder myself seven years, and at last sold for 20*s.* a-tod.

When were those seven years? I sold it in the year 1830; therefore it would be the six years preceding that.

The wet season commenced in 1828?—The period of 1828, 1829, and 1830.

It was in that period the high price of wool commenced?—We have had a much better price since that, five years ago.

And you conceived the prosperity of the manufactures to have commenced only two years ago?—When I say that the rise of the price of wool might be occa-

sioned, which I think it was, from the great rot in sheep, I think, unless the manufacturers have been prosperous, we could not have maintained the price as it is now, for I think the rot has been sufficiently got over, and we have got back to the same state the year before.

Though the effect of the rot has been got over, the deficiency caused by the rot has not been supplied, therefore the effect of the rot would still be felt on prices!—The effect of the rot would now be got over; and unless the manufacturers were in a very prosperous state, we could not keep up the price of wool to what it is now.

Can you speak particularly to the effect of the rot being got over?—Yes, by my own flock of sheep, and others also.

Are you a great buyer of wool?—Not at all.

If you are not in the habit of attending markets or sales to buy wool, how did you ascertain whether the quantity of fleeces are the same in the hands of the farmers as they used to be?—Many of our farmers lost their flocks in the rot years; now I see, in passing their farms, that their flocks have got up to what they were before.

Are you speaking of the Wolds of Lincolnshire?—No; there was no rot there on the cold heavy lands; I am speaking of Huntingdonshire, Northamptonshire, and Buckinghamshire.

It is your opinion that the loss sustained by the rot has been got over?—I think it has pretty nearly, but it has not been got over in particular instances, it has in others, because some farmers, from the great depression, have not been enabled from any means they possessed; I know many men who have been obliged to go to their friends and get security for money to enable them to buy sheep to stock their farms.

Was there not a panic extending to the low lands with respect to keeping sheep upon them, so that the farmers would not venture to keep flocks upon them subsequent to that period?—I certainly think that, generally speaking, persons who used to keep flocks keep them now; I think for a time they were timid, I was myself, but now I go on as usual.

In consequence of the high price of wool?—In consequence of stock bearing a more remunerating price than corn.

Does it come within the sphere of your information to ascertain whether such a rot ever took place in the memory of man before?—I recollect a very bad rot before.

To the same extent?—I have not an opportunity of knowing the extent; I recollect in 1825 travelling through Romney Marsh, and seeing a great devastation of the flocks at the time.

Was not 1825 a dry year?—No, 1826 was a dry year.

You state that you would recommend a commutation of tithe, the unrestricted use of barley, reduction in the county-rate, and reduction in the assessed taxes, and a well regulated poor law for Ireland, as means whereby the farmer might be relieved?—Yes, and no alteration in the currency, in my firm opinion.

Do you remember the farmer ever being in a prosperous state?—Oh yes, I recollect that very well.

Was his tithe commuted then?—No.

He was prosperous in spite of tithe?—Yes; but I have always had an opinion that it would be much better for the church and for the farmer to commute the tithe.

Do you recollect the time when a farmer had the unrestricted use of his barley?—No.

But the farmer was prosperous?—Yes.

Do you recollect when the malt-tax was much higher than it is now?—Yes.

Yet farmers were prosperous then?—Yes.

Do you recollect the time when the county-rate was lower than it is now?—No.

Yet the farmers were prosperous?—Yes.

Do you recollect the time when the assessed taxes were higher than they are now?—Yes.

Yet the farmers were prosperous?—Yes; I suppose it is wished that I should go to the time when we had

high prices and paper currency; I have stated my objection to the alteration of the currency.

If the farmers have been prosperous with all those burdens upon them and bearing upon them in a still greater ratio than they do now, in what way do you conceive they have tended to their present adversity?—There is no doubt that the coming from a paper currency to a gold standard would have the effect of lowering prices very much.

To what extent do you suppose?—To a considerable extent; there is no doubt of that; but now we have come to that, while we have had an unlimited use of paper, in my memory I very well recollect it had this effect, that a farmer would go to a landlord, and take land at a higher rate than he could possibly make it answer, because he had a facility for borrowing money of his banker, who was anxious to get his paper afloat; then we had a regular blow up; I knew many farmers who were doing comfortably under the old system, when men who had the issuing out of this paper money offered it to them, and they were induced to accept of it, little thinking how soon they might want the money to pay again; some were not prepared to repay it, and then there was a blow up; in my opinion it would have been much better not to have come to the change quite so quickly; but now things are finding their level under it; I think I would not go back to the old system, because it makes men go and take farms who do not understand the nature of farming, and get into all manner of speculations and theories; if we were to have a paper currency now, we should have a greater panic than we had in 1825; if I want money I can get it now.

You think it would have been better not to have returned to a gold currency?—Not quite so quickly.

Is it your opinion that it would not have been better to return to a gold currency, because it lowered prices so much?—I think we returned too quickly, that was my opinion at the time.

You think that the fall in prices is to be attributed to the alteration of the currency?—Yes, I think it would have been better to have taken a longer period.

You state it as one of the disadvantages of the paper system, that tenants were induced to offer a higher rent than they could pay?—Yes, I could name many bankers who went down with the panic in 1825 who lent money to the farmers; and farmers have been induced to take land on those gentlemen going to them for the purpose of lending them money; when the panic came, down went the prices, and not only the bankers themselves, but the farmers were also ruined.

You stated that a great many farmers were ruined in consequence of the paper system?—Yes, a great many in my opinion, I could name, were ruined, who had borrowed money of bankers at the time, and who took such a quantity of land; and it is an act of injustice to men of capital to have to compete in the market with a man who has taken a farm without any capital. I have not a fair chance with that man; he goes and gets paper, and comes into the market with as good a grace as those who have a fortune to stand on.

Can you state whether more have been ruined since or before 1825?—I think we have had great ruin since that time; but now we are getting over the effects of returning from a paper currency, and I think it would be better not to go back again.

You state that land growing 30 bushels of wheat per acre will not pay the expenses of cultivation; do you consider that getting over the return to cash payments?—No, but so far as that goes, it was right; but if you have a paper currency again, that will raise prices; but afterwards you will have a much more difficult thing to combat with than by giving us relief, by which we may do without that.

Can you state what led to the panic in 1825?—All sorts of speculations; I could name men who went without the least knowledge of a farm into farming; and one instance I can name of a man who went to look at a farm, and it was covered with snow; the farmer said he should have the money, and he took the farm without any thing more.

Did you not state that in the years 1823, 1824, and 1825 the farmers were prosperous?—Yes.

Not only the speculating farmers but other farmers?—Yes, but in 1826 we suffered very much from the panic; we had very low prices; I lost more money in 1826 than any other year I ever recollect.

Do you think the farmers did generally lose more money in 1826 than since?—While the high prices were going on they could not lose money, but it could not go on.

Do you think the farmers can go on much longer, as things now are?—Not without relief, but that can be given without paper currency; I can point out another plan—by allowing corn to be distilled for spirits, and the spirits to be exported; that would be a very great relief for this country, and not any injury whatever to the revenue.

Mr. SANDFORD.—Are you to be understood to say, that a farmer at the present moment, having a good security to offer, can without any difficulty obtain money?—To any amount.

## PARISH OF ESKDALEMUIR.

By the late Rev. Wm. Brown, D.D., Minister.

**LEASES.**—The common length of leases on sheep farms containing a portion of arable land, which is the description of farms in this parish, is nine years; but this is too short; for there is not sufficient time for making any great improvement, and these, if made, are scarcely finished, and the farmer has hardly begun to enjoy the fruits of them, when, by their being brought again into the market, they become a temptation to a new bidder. On the Duke of Buccleuch's farms this is indeed corrected; for there, there is no exposure to public roup, nor private offers made. A certain percentage, in proportion to the sales of the former lease, is either added to or taken from it, as the rent of the lease ensuing; this is offered for the acceptance of the tenant, and if he has a son to succeed him, behaves well, and can pay his rent, he is never removed. In this way, let the leases be what length they may, improvements are constantly carrying on: farms become a kind of life-rent property to the possessors, who improve them for their children's children, and yet it is understood that the Duke's farms are not, on the whole, cheaper than others. But the security of the system is all the charm. In the building of houses, the Duke gives wood, slate, and lime; but the carriage of these from the places where they are usually sold, and all the other expenses of building and finishing, are the work of the tenant. On farms differently constituted, every permanent improvement ought to be made by the landlord. In general the farm buildings on the Duke's estates in Eskdale are commodious and in good repair; and I add with pleasure, that the paternal interest which the family of Buccleuch has taken in the welfare of its tenantry, is gratefully felt by the latter, and has a powerful effect on their general character. Few are more honourable in their dealings or better informed.

**DRAINING.**—The most general improvement on sheep here is surface draining. The drains are made from 16 inches to 2 feet wide, and 1 foot deep at an average. The expense of making them is from 6s to 7s 6d per 100 roods of 18 feet each; and when the soil, after some years, has become compressed, and the sides of the drains having become to meet, they are commonly widened and cleaned out for from 4s to 5s per 100 roods. A considerable degree of skill is requisite in laying them on. If they run too slow, they cannot clear themselves of flying bent and other impurities; and if too rapid they run into gullies. The best rate of motion is a medium between these two. Experience has taught that they should be of considerable length to collect a sufficient quantity of water for keeping them clear; and, where the ground will allow it, they are commonly made to run up the water rather than down; that is to say, when drawing the wet side of the hill, facing the east, for instance, with a burn running south at the bottom,—in

place of beginning the drains at the north end, in a parallel direction from north to south, as the burn runs,—it is better to begin them at the south end of the hill, and make them run north into some ravine or syke on that side communicating with the burn. You can thus make the draining more level, by having gained the difference of level on the north end above that on the south. The advantages of these drains, on sheep farms containing much bog, are incalculable.—The grounds which retain the wet after rain, or were locked up by every frost, by having their surface moisture quickly carried off, afford a dry bed for the sheep, and better grasses for their support, and have banished the most destructive of all diseases, the rot. In this parish, there are on some of the farms between 30 and 40,000 roods of these drains; and in the whole parish, there are nearly 400,000 roods of drains.

**EMBANKING.**—But, besides surface drains on hill lands, the straightening and embanking of Black and White Esks, with several of their tributary streams, have been of material advantage. There is a long embankment of the Black Esk on the farm of Killburn, and one of shorter dimensions, of the Gerwald water, below Thick-side; but the principal one is that of the White Esk on the farms of Nether Cassock, Davington, and Burncleuch, extending to nearly two miles, and done at great expense. By it, an extensive holm or haugh, of more than 100 acres, which, in many places, was a sour swamp and much overflowed every flood by the river, has been dried and rendered productive both for crops and hay.

**MOLE-CATCHING.**—Mole-catching, which in my (the Rev. Dr. Brown lately deceased,) former account, was merely mentioned as a thing proposed, was in the summer of 1797 carried into effect, on the whole of the Duke of Buccleuch's farms in the south county. Messrs Fleming and Thompson from Lancashire undertook to catch, for 14 years from that date, on the following conditions:—For every 100 acres of arable land, 10s annually for each of the first three years, and 5s annually for each of the remaining eleven; and for every 100 acres of sheep pasture, 8s 4d annually for each of the first three years, and 4s 2d for each of the remaining eleven. This plan is continued still, but at a lower rate; for the first fourteen years required four times the number of hands that are needed now. As everything on the Duke's estate is done systematically, the proportion due by each farmer is paid at the rent day to the chamberlain, after deducting the board of the mole-catcher, and handed over to Mr. Fleming, who regularly attends. Several other proprietors have agreed with Mr. Fleming, at the Duke's rates. One advantage is obvious to the most superficial observer. Before the moles were caught, their usual run was along the back of the drains, where the ground was driest, and often into the drains,—the consequence of which was, that every flood sending out water through these holes spread the mole hills over the ground beneath, causing that rich soft grass to arise, which, in spring, might do no injury, but was dangerous in autumn for the introduction of rot.

In 1798, His Grace Henry of Buccleuch, knowing the advantages of flat flooding on the meadows, and catch-work, as it is technically called, on sloping grounds in several of the counties in England,—engaged Mr. Stephens to assist any of his farmers who were so inclined in laying down land regularly for water meadow. A considerable number profited by his Grace's offer; and the whole of the meadows so operated on have been accurately reported by Dr. Singer, at the request of the Highland Society, and the report published by them in the third volume of their Transactions. There were no water meadow in this parish except two acres of catch-work on the glebe; which, although supplied by a mountain rivulet of very inferior quality, were visibly enriched,—the poor barren soil being converted into rich black mould. In general, the objections against the system were—the small quantity of ground that could be spared from the sheep or the plough,—the abundance of hay either from meadow or bog,—and the poverty of the water when compared with that

which passes through the rich manufacturing districts of England. The hay too was thought good for cattle but not for horses; and of fodder for the latter they stood much in need.

Till the beginning of the present century, it was the practice of farmers, during snow-storms of any great continuance, to fly with their sheep to Annandale. To those living under different circumstances it is scarcely possible to conceive the extent to which this was carried. I select one instance from many from a memorandum taken at the time. "On the 15th of January, 1802, the thaw came which relieved so many thousands of sheep. For a great number of years such a general flying for pasture had not been experienced, although lesser ones have been far from unrequent. Every part of Nidsdale, Annandale, and the lower part of Eskdale, that could take in sheep, was filled with them from Crawfordmuir, Tweedsmuir, Ettrick, and Yarrow, the head of Tiviotdale, Ewes, and Eskdalemuir; and had the frost continued eight days longer, there is no saying what the farmers would have done. Nor was all this owing to the great depth of snow, for it was by no means considerable. The whole of the evil was occasioned by the snow falling wet, or becoming so, and then freezing, which locked up the pastures from the sheep. The common rate per score, for twenty-four hours, even for this imperfect kind of support, was from 10d to 1s 6d." No such things as *flying* in this parish is now ever thought of,—the pastures in Annandale, to whom they usually fled, having in many places been subdivided and inclosed. Hay parks were begun at home. The dung, which lay useless formerly, was employed to enrich them. This gave a considerable quantity of led hay for the sheep; and in addition to this, it was found that the better kind of bog hay when well got, could subsist sheep very well till the thaw came. In place therefore of their being hungered before they went to Annandale, half-starved while there, and half-drowned in the burns on their way home when the thaw came, they continue at home, thrive better, and much money is saved to the farmer.

An additional fund of support for young cattle and sheep has lately been introduced into this parish from Liddesdale by Mr. James Elliot, tenant at Yethyre, in moving the flying bent and converting it into hay. Before he began the practice, it was allowed to wither, to be carried about by the winds, and stop the current of the drains. It is not so nutritive as bog hay, but if cut early when full of sap, it is far from being despicable:—and what adds to its value is, that it is found on farms where bog hay is not abundant.—*New Statistical Account.*

### PRESENTATION OF A PIECE OF PLATE TO LORD DOUGLAS.

A few weeks since, the tenantry on the Douglas estates in the Upper Ward of Lanarkshire, came to the resolution of presenting a piece of plate to their noble landlord, in testimony of their high respect for his general character, and particularly of their gratitude for his kind and generous attention at all times to their welfare. With such promptitude and zeal was the proposal entered into, that within five days upwards of 200l were subscribed; and twice that sum, if required, would have been as readily obtained. Highly gratified by this proof of their good feeling towards him, his Lordship most readily accepted the invitation of this respectable portion of his tenantry, to receive the piece of plate at Douglas Castle on the 25th of March—his birth-day. Friday, accordingly, was a proud day for Douglas. About two o'clock p. m. the subscribers, having assembled at the Douglas Arms Inn, Douglas, went in procession, preceded by the Douglas band, in their handsome new uniforms, to the Castle, on the green, in front of which seats had been ranged in the form of a semi-circle for their accommodation. On a table

in the centre of the green, was placed the plate, surmounted by a tasteful canopy. Stormy and cold as the day was, the concourse of spectators was very great, including a number of strangers, not only from the neighbouring parishes, but from Lanark, Glasgow, and Edinburgh. Almost every lady of respectability in the vicinity was present; and being accommodated with seats in front of the table, presented a range of beauty which was not the least interesting part of the exhibition. When Lord Douglas made his appearance, accompanied by his brother the Hon. Captain George Douglas, the air rung with acclamations. On his Lordship's advancing to the centre of the green, Mr. Gillespie of Parkhall, presented the plate to his Lordship, accompanied by the following address:—

"My Lord Douglas,—In the name of your Lordship's tenantry on the Douglas estates in the Upper Ward of Lanarkshire, I have the honour of presenting to your Lordship this piece of plate, in testimony of our gratitude and respect for your Lordship as a generous landlord and an upright nobleman; and that your Lordship may long live to preside over your extensive estates is the sincere wish of us all." Wine being handed round, Mr. Gillespie proceeded—"Gentlemen, I beg to give the health of our noble landlord, and many happy returns of the 25th of March."

When the enthusiastic cheers had subsided, with which this address and toast were followed, his Lordship replied in a tone of animation and warmth which delighted all present. He expressed himself very highly gratified by the honour they had done him in presenting him with so handsome a piece of plate—he esteemed it very highly—and while he returned them his warmest thanks, he begged to assure them that he would always be happy to show them any kindness in his power. His Lordship then gave the following toasts, every one being followed by the loudest acclamations, and by a discharge of guns from the battlements of the Castle:—"The King," "The Queen, and the other branches of the Royal family;" "The Tenantry of Scotland, and may the industrious farmer always meet with encouragement, and be rewarded by a generous landlord." "And now, gentlemen," said his Lordship, "I beg to give 'the Tenants of this estate in particular,' and to return them my best thanks for the very magnificent and splendid present which they have this day so handsomely offered to me." He then bowed gracefully to the ladies, and said, "I beg to propose a bumper to the ladies who have honoured me on this occasion with their presence—your husbands and sweethearts—long life and happiness to you all."

It was a most interesting and gratifying sight to see this kind-hearted nobleman, surrounded by upwards of a hundred warmly attached tenants, and exchanging with them the most cordial expressions of regard. He was quite buoyed with feeling; and nothing could exceed the lively cheerfulness of his manner—his countenance beaming with the kind and joyful feelings of which his heart was full—except, perhaps, the sympathetic delight which he infused into every heart. It was such a scene as few can have the happy lot to witness, and none who did witness it can ever forget.

The plate, all of the most massive silver, consists of an epergne, with four branches, on four lion's claws. The branches, two sides of the epergne, and the claws, being of beautiful frost work. The epergne is supported on a large salver, very richly chased, with four lion's claws, all of the most exquisite workmanship. On one side of the epergne, and on the upper side of the salver, are the family arms, most

beautifully engraved. On the other side of the epergne, and on the reverse of the salver, is the inscription, arranged thus :—

Presented to  
The Right Honourable ARCHIBALD LORD DOUGLAS,  
of Douglas,  
By the Tenantry on the Douglas Estates in the Upper  
Ward of Lanarkshire,  
As a Tribute of Respect and Gratitude,  
To a Nobleman, who,  
With Virtues worthy of the high name of Douglas,  
Has shown himself,  
In kind and generous attention  
To the  
Welfare of his Tenantry,  
*Jamais Arriere,*  
(“ Never behind ”—the family motto.)

The whole did great credit to Messrs. Mackay and Cunningham of Edinburgh, by whom the plate was furnished.

From the Castle the tenantry proceeded to Douglas Mill Inn, where about 120 sat down to a sumptuous dinner. A little past four o'clock, the chair was taken by Mr. Scott, his Lordship's factor. The Rev. Alexander Stewart and Mr. Black of Hazleside, acted as croupiers. The leading toast of the day, given by the Chairman in a speech replete with feeling, was received with long protracted and reiterated cheers. Next followed the Hon. Charles Douglas, proposed by Mr. Stewart—the Hon. and Rev. James Douglas—the Hon. Captain George Douglas—Lady Montague—Lady Scott, and the other ladies of the Douglas family—which were received with equal enthusiasm. Most cordial, too, was the response, when Mr. Stewart proposed the health of the Chairman, with a well-delivered tribute to his merits as factor, and when the health of Sir F. W. Drummond, agent for Lord Douglas, was also given by Mr. Stewart. Many excellent speeches were delivered in the course of the evening, which was likewise enlivened with some good singing; and every heart being in full harmony with the happy feelings that had brought them together, the meeting was altogether delightful.

On the same day, at Bothwell Castle, considerably more than 200 persons, mostly the tenantry of his Lordship, met to celebrate the event. No disinterested person present could fail witnessing the joy and happiness evidently visible in the countenances of the crowds at the Farm and Castle. Dancing was kept up with the greatest spirit until two o'clock A. M., when the parties separated, highly pleased, and truly grateful for the kindness awarded to them by the noble Lord, and who all gave their good wishes and blessings to the noble family of the Douglas.

## PROSPECTS OF AGRICULTURE IN 1836.

SIR,—In my last I adverted to the currency question :—the law of supply and demand; and the Irish poor laws, and in reviewing the other remedies proposed for the depression which exists, I will next revert to the malt-tax. This was a great favourite with a large portion of the agriculturists some two years ago, and so far was perseverance carried on the part of the friends of the farmer, as to procure the remission of one-half of it, which vote was rescinded the next evening. I must confess, sir, and I do it without shame, for we ought never to be ashamed of owning ourselves wrong, that my opinions on that subject are altered, and not entirely from the arguments of Sir R. Peel,

which were very strong, but from a fair and impartial consideration of the measure. One of its alleged benefits was an increase in the price of barley. I doubt however whether it would have that effect;—the increased demand would cause increased production; for the means of production are absolutely illimitable, and it is probable that barley would lower in price in consequence, as was the case with the beer bill, which instead of effecting the desired object, has been a source of demoralization to the working classes, and it is contrary to experience to aver, that the first-named measure would be favourable to public morals. It is a luxury, and consequently a fit object of taxation, for the revenue must be raised from some quarter. Possibly however it might relieve the wheat markets, by employing an increased portion of the wheat-growing land. There is, I think, little probability of its remission;—public sentiment is evidently taking another turn, and the difficulty of finding a substitute for it, will cause it always to be opposed by the ministry of the day. If any reduction takes place, it must be *the whole*, or it will only be a boon to those overgrown monopolists, the maltsters.

Of late there has been an opinion gaining ground, that the large farm-system is not only injurious to the community, but also productive of agricultural distress. Articles on the subject have appeared in the metropolitan and provincial press, and private abusive letters have been sent to certain influential journalists of the former class, for inserting them; but when offers were made for the discussion of the question, they declined. I will not now recapitulate the arguments which are urged against them, but observe, that if there is anything at all of truth in the statements, they deserve attention, because they can so easily put the recommendations of reducing the size of farms into practice, without legislative interference, although even that may be ultimately necessary, to check the present monopolising system. It is alleged that they cause an increase in the poor-rates;—a less consumption of farm produce, and an uncertainty in the markets. Landowners can reduce the size of farms to the maximum of one hundred and fifty acres, and agriculture would be improved, and prosperity increased by that means. Among the advocates for the moderate size system, I may observe, are Parkinsen, Evans, Forembly, &c., &c.

Much discussion has taken place in the agricultural world with respect to the illicit importation of foreign corn, through the Channel Islands, and the colonies, and it has been declared that there is no foundation for the reports. True or false, there can be little doubt that corn is admitted into the islands *for their own consumption*, and as they send us their own corn to sell in our markets and thus make a kind of exchange, which of course is tantamount to bringing foreign corn, but I am glad to observe that the Jersey farmers are uniting to oppose its admission, urging that it deteriorates the sale of their own produce. Should they be able to carry this into effect, the traffic must be speedily stopped, as the trifling advantage of price obtained at present will not hold out sufficient temptation to run the risk of detection.

A plan is now in agitation: to bring the 500,000 quarters of corn which is now in our bonded warehouses, into the country to grind for exportation to the West Indies and South America, which have until of late got their supplies from the United States, and partly from Canada, and as a—what shall I call it, bribe?—no :—they offer the offer to



the government! This plan will be most ruinous to the English farmer, for besides the liability to fraud which it will lay open, the ofal will come in contact with our barley, &c., and cause a further reduction in the prices of the inferior kinds. The plan was tried in 1825, and failed most miserably, and every farmer should immediately and strenuously oppose it. I think I have now gone over the list of proposed schemes which have been proposed to relieve agricultural distress, and have investigated all upon their own merits as impartially as I can, and the most speedy, easy, and certain relief for agriculture I think are,—the giving of *poor laws to Ireland—a reduction of the size, or a division of large farms, and an equitable settlement of the Irish tithe question*, which must however be done, without neglecting to attend to other measures, and especially investigation into truth. I hope a searching investigation will be instituted by parliament, and that it will not confine its labours to the *metropolis* or to *voluntary evidence* only, but come amongst the farmers and examine all classes, labourers as well;—all possess some little stock of knowledge which may be useful and lead to valuable results.

I now come to the next consideration,—prices. The prospects upon the whole are I hope not, worse than the past. I think after the fullest investigation to the subject, which I am capable of giving it, that in times of low prices, the following principle will be found generally to regulate prices. Any article which is selling at rates disproportionate to the rest, will, the succeeding year, in consequence of increased competition, generally either come to the level with the rest, or below it, and *vice versa*. Applying this principle to wheat, I anticipate its price to advance after the harvest of 1836, should the crop be only average, in consequence of the wheat-growing land being used for the growth of barley and other grain. Still this will not operate to the extent of any considerable increase in price, so much old corn remaining on hand, but I think it will be sensibly felt. Barley, though not relatively dear, is at least better sale than wheat, and the land which is reserved for it, is in extent beyond all precedent. Should the crop be anything like an average one, a glut in the market, and depression of prices, may be reasonably anticipated. The demand for oats has been somewhat brisk, owing to speculation, but these will come into market, and cause the price to fall. Beef will probably be about stationary, excepting during the spring, when the deficiency in the turnip crop in the south, will be principally felt, and before the grass will have sprung. Mutton has of late advanced in price, and may be expected to be still dearer the ensuing spring, from the above-mentioned cause; but considering the fair prices at which wool and mutton have been sold during the last two years, and now when the deficiency from the rot is supplied,—should the food prove plentiful, we may anticipate a falling in the markets, and an abundant supply.

In conclusion however, I may observe, that in no profession is there more difficulty of prognosticating the probable sale of any one article of produce, any considerable period beforehand, than farming;—so much depends on the crops and the seasons, as well as the stock on hand, and disposition to sell, which in agricultural concerns especially, are the most difficult to ascertain. W. E. N.

Since the above was written, I am glad to observe that the plan does not meet with the sanction of government.

## ACCIDENTAL DIVISION OF THE FLEXOR TENDON OF THE HIND LEG—PERFECT CURE.

By Mr. J. HAYES.

(From the *Veterinarian*.)

On the 6th of February, 1825, I was sent for to Mr. Loyd's, Oldfield Hall, near Altrincham, Cheshire, in which place I then resided. Mr. Loyd had started that morning in his one-horse phaeton, to go to Manchester. When he had got about one mile on the road, the horse took fright, and dashed to the other side of the road, where, coming in contact with some heaps of broken stones, he upset the vehicle, and by his kicking and struggling, completely divided the flexor tendon of the left hind leg, about four inches above the large pastern joint. They managed to get him home with great difficulty. When he walked or stood, the superior pastern joint was resting on the ground, the foot lying with the heel on the ground, and the toe turned uppermost in front of the leg. The opinion of the people about him was, that he should be destroyed; but he being a fine animal, and a favourite one also, Mr. L. was reluctant to give the order. I explained to him the nature of the accident, and what was the general opinion of veterinarians on divided tendon; and I added, I had a doubt on my mind as to the supposed improbability or impossibility of uniting a ruptured tendon, although I was fully aware of the difficulty of the case. I had never seen or heard of the experiment being fairly tried; but expressed a desire to attempt it, and said that if he would allow me to do so, I would charge nothing if the result was unfavourable; to which he readily assented.

I first got a very strong shoe made, with the heels continuing up the posterior part of the pasterns, as far as the great pastern joint, where the two heels, as it were, joined together, and formed a strong iron stay, which continued up the posterior part of the shank, as high as the hock joint. This was made so as to hold the leg, and bear standing on, in the same position as a leg in its proper sound state. This stay was well padded on the inside; with loop-holes made in three different parts of it, for padded straps to go through and buckle round the leg.

Thus the two ends of the tendon were brought together, and a little tow dipped in balsamic tincture was applied firmly to the wound by a thin bandage. The show with the stay was nailed to the foot, and firmly buckled to the leg. The leg was fomented three times a-day. I abstracted some blood, and gave him two mild doses of physic, followed by a little fever medicine; dressing the wound once in two days, until the beginning of March, when, the wound being healed, I put a large charge on the leg, and buckled on the stay as before: this was suffered to remain until May, when I ordered shoe, stay, and all to be taken off. I then blistered the leg, and turned the animal out to grass, where he remained until the middle of July; he was then taken up and put to work as before, with not the least perceptible lameness. He remained sound afterwards, although they kept and worked him regularly in the same manner as their other horses for six or seven years.

I should have stated, in a former part of this narrative, that on the second day after the accident, Mr. L. met with a veterinary surgeon, since deceased, who happened to be going that way, and mentioned the circumstance to him; and that he, in a very knowing manner, told Mr. L. that it was quite impossible that the tendon could join together again, so

as to be of any service afterwards; but he would see it, and if he found the tendon to be divided, he should at once recommend Mr. Loyd to have the horse shot. Mr. L., with much good and kind feeling, immediately sent for me to be present at the examination. I came; the bandages were taken off; he examined the wound, and immediately declared that the tendon was actually cut in two, and that it was as impossible to unite it again, so as to be of any service, as it was to make a new leg. He then took me on one side, and told me I must be a fool to attempt any such thing; for he could assure me that it had been tried by many of the principal veterinary practitioners, and had never yet succeeded; and that it would lose me the confidence of my employers by its failure, &c. I replied, that I believed his intentions were good, for which I thanked him; but though his name, his age, and his experience, must have great weight, yet I neither did nor would pin my faith or my practice upon any man's sleeve: that I was determined, if Mr. Loyd would keep his agreement, I would persevere, and give the case a fair trial, and then I should be satisfied, but not until then. The result of the experiment was, in due time, communicated by Mr. L. to this surgeon; and I am sorry that it caused a lasting alienation between us.

### PHRENTIS, OR INFLAMMATION OF THE BRAIN, IN SWINE.

MR. EDITOR,—Although the veterinary art embraces nominally the treatment of all animals requiring medical or surgical assistance, yet it is a well-known fact, that with the exception of the horse, no other animal has been considered sufficiently important to merit the particular attention of investigating by scientific veterinarians; it is true that the dog and neat cattle have been slightly noticed by Blaine, Clater, and others, but sheep and swine, animals not the least useful of the grazer's stock, have been passed by nearly unheeded. This circumstance has induced me to lay before you the following case, and should you think it deserving of insertion in your publication, you are at liberty to lay it before the public.

A store pig of mine weighing about five stones, which had been living on the usual kitchen refuse, and a little stale milk, was first noticed on Wednesday morning last to be walking round its yard apparently much discontented and thin, and anxious to get away from its yard; it also refused its food. Not thinking the case of particular importance, I paid no further attention to the circumstance until after my man had been to attend to it in the evening, who found the animal a good deal convulsed; when I saw it the convulsions were over, but the pig was blind. Having paid but little attention to this branch of the veterinary art, I called in the assistance of an individual that was considered by many of his neighbours as "very learned" in the treatment of pigs. In conformity with his wishes, two inches were abstracted from the length of the pig's tail, both its ears slit, and the parts left bleeding; on the following morning, as the animal was not better, it was bled in the mouth. This (the usual treatment in all such cases) being of no essential service, and the animal getting worse, I thought it necessary to take the case into my own hands. The convulsions, blindness, and prostration of strength, I considered to be owing to an affection of the brain, which symptoms were aggravated by considerable constipation of the bowels; the case had evidently been delayed too long, and the treatment I pursued was more of an experimental

kind, than with any hope of producing a favourable result. The common means for evacuating the bowels not having succeeded, I gave the following drench in a little thickened milk:—

Croton oil, 2 drops.

Tincture of ginger, 1 dram.

Simple syrup, 2 ounces.

The drench was repeated after an interval of nine hours: the first dose brought away some feces very much hardened, and the animal appeared relieved, the convulsions being less violent and not so frequent; the last dose caused a relaxed state of the bowels on the following morning, but thinking them not sufficiently operated upon, an ounce of sulphur was given in a pint and a half of thickened milk. With all the attention which it received the animal did not live long after taking the sulphur, the system evidently having been too much exhausted before active treatment was resorted to. On examination after death, the brain showed extensive marks of active inflammation.

The observations that I made on the case and on the effects of the treatment, would in a similar case induce me in an early stage of it to pursue the following treatment, which I would also recommend to the public in general as being most likely to check the disease, and restore the animal to health, and which is practicable by any individual. The first thing to be done would be to bleed largely from a vein in the fore leg (the brachial, or as known to farriers in the horse by the name of the plate vein); this vein runs along the inner side of the fore leg immediately under the skin; and, the best place for opening it, is about one inch above the knee, and scarcely half an inch backwards from the bone (radius), as no danger need be apprehended from cutting two or three times, if not successful at first in getting blood, by tying firmly around the leg just below the shoulder a ligature of tape, the vein will be more readily discerned, and the flow of blood greater. The palatine veins which run on both sides of the roof of the mouth, should also be opened, by making two incisions, one on each side of the palate, about halfway between the centre of the roof of the mouth, and the teeth. A drench similar to the one already prescribed I should also give, varying the dose of Croton oil from one to three drops, according to circumstances and the size of the pig. The tincture of ginger acts as an aromatic, and also dissolves the oil; if necessary the dose should be repeated every twelve hours for two or three times, until the bowels are well acted upon. (Sulphur, although a good aperient, in general cases may be used as an auxiliary, but must not be depended upon for producing a certain and quick effect like to Croton oil, in important and dangerous cases.) The head should be kept cold bathed, by tying round it a piece of cloth, and by frequently pouring the following cold lotion upon it:—

Sal ammoniac, 1 ounce.

Strong vinegar, 1 pint.

Cold water, 2 quarts.

To be mixed together. Should this treatment not prove sufficiently effective although the bowels might be opened, I would attempt blistering on the back of the neck, and would give internally powdered hellebore\* in two grain doses, two or three times a day,

\* Hellebore is generally used by pig doctors for pegging their patients with, in a variety of complaints, and the good which frequently results from this mode of treatment, is to be attributed I consider more to the nausea which its causes, by being absorbed into the system, than by the local irritation which it produces.

until the animal was nauseated, which would be known by its "slavering" at the mouth; the effect of nausea on the animal system is the reducing of arterial action, or perhaps in more comprehensive words, lessening the power of the circulation.

The principle of this treatment throughout, will be perceived to be the reduction of excessive vascular action, either by depletion (blood letting), purging, counter irritation or nausea, or by all conjointly; and on this principle only can the disease be scientifically and successfully combated.

Hoping that the diseases of no animal will be considered as undeserving of scientific investigation or inquiry, and wishing that this case may serve as a nucleus, around which many facts may be gathered, whereby animal suffering may be reduced, and individual loss to a considerable extent prevented,

I am, Mr. Editor, yours, &c.

FRANCIS CUISS, V. S.

Diss, Norfolk, April 6, 1836.

### AN ACCOUNT OF THE FLOUR MILLS AT ROCHESTER—UNITED STATES OF AMERICA.

Amid the multitude of machinery with which the river Genesee is studded, the flour establishments are conspicuous. There are now within the city of Rochester twenty-one mills, with ninety-five runs of stone, capable of manufacturing five thousand barrels per day. Twenty thousand bushels of wheat are daily required for these mills when in full operation. The immense consumption of the raw material occasioned by such an extensive manufacture furnishes to the rich wheat growing region around Rochester a ready market, while it draws considerable supplies from the shores of Erie and Ontario. Besides the wheat drawn from the surrounding country and from Ohio, some of the Rochester millers imported in 1835 from Canada (subject to heavy duty) about 100,000 bushels. Three of the above-mentioned mills have been erected last year, and considerable improvement has been made in some of the others. These three mills contain seventeen runs, which with the seventy-eight runs in the other eighteen mills, forms the total of ninety-five runs. Some of the Rochester mills are on a scale of magnitude unsurpassed in the world; all are considered first-rate in the perfection of their machinery, and so effective is the whole Flouring apparatus, that there are several single runs of stone which can grind (and the machinery connected therewith, bolt and pack) one hundred barrels of flour per day! and such is the character and extensive demand for the article, that besides the quantity shipped for foreign countries, the "Rochester brands" may be seen equally at Montreal or Washington—at Quebec or New York—at Boston, Hartford, Charleston, or New Orleans. The total amount of capital invested in the twenty-one mills exceeds half a million of dollars (540,000) as was ascertained on a late accurate examination by Thomas H. Rochester, Esq., one of a committee appointed by the Common Council to collect the statistics of the city. Williams's "Annual Register" for 1835, mentions the Rochester mills as only fourteen in number, with sixty-four runs of stone; but, by the statement here made, it will be seen that the mills are one-third more numerous, and the capital invested about double the amount given in the Register. The avidity with which mill property has been sought, and the additions made to it during the

present season, indicate clearly strong confidence in its permanent worth.

The water power at the two great falls at Rochester is estimated as equal to 1920 steam engines of twenty horse power. The total value of this water power, calculated according to the cost of steam power in England, is almost incredible to those unacquainted with such subjects—amounting, as it would, to nearly ten millions of dollars (9,718,272) for its annual use!

When in connection with this vast water power we consider the great facilities which Rochester enjoys (by lake, canal, and river) for receiving wheat and other raw materials from, and shipping flour and other manufactures for, all desirable points either in the United States or the Canadas, we may more fully appreciate the importance of the present milling and manufacturing establishments, and confidently anticipate the continued prosperity and protective greatness of the city of Rochester.

HEALTH OF HOP-GROWERS.—Those who have been habitually engaged in hop-growing, have been so uniformly in good health, as to have attracted the attention of the medical philosophers. In the burning districts, so called, in England, in which from three to four thousand people are exclusively employed in the various preparations of hops, there has been but one death for a long period. Formerly the business was deemed unhealthy, and Mr. Ellis, a very humane gentleman, engaged, at his own personal expense, the services of a physician to be constantly in attendance at East Farley, another famous hop-raising place. So far as observation has been made in the United States, an equal share of good health has been meted out to all grades of hop-growers.—*American med. journal.*

EXPORTATION OF WHEAT TO CANADA.—A few years since a proposition to send corn to Canada would have been treated as that of a proposal to send coals to Newcastle—but "Time makes fools of us all;" and what would lately have been considered next to an insane adventure is now held to be a safe speculation. When in Bo'sness the other day, we saw a number of carters and porters actively employed in loading with wheat, for Montreal, the fine brig *Atlas*, of Kirkaldy—to sail on Sunday. The entire cargo of the vessel will be wheat, which has been in bond, we believe, these two years.—*Scotsman.*

The consumption of oxen in Paris during 1834 was 68,408, of cows 15,290, of calves 60,237, and of sheep 306,227. A curious observer on these subjects has ascertained the annual consumption of the above articles of food for the seventeen years from 1760 to 1777, and calculated that the average was 66,784 oxen, 20,977 cows, and 107,945 calves, and 332,920 sheep. The number of oxen killed in 1834 was greater than in the above average, but this was not the case with respect to the cows, calves, and sheep. In fact there was an increase of 1,624 oxen, while there was a decrease of 5,687 cows, 47,708 calves, and 26,694 sheep. The consumption of butcher's meat in London is much more considerable than at Paris. According to statements given it amounts annually to 150,000 oxen, 50,000 calves, 700,000 sheep, and 250,000 lambs. It is observable, that the consumption of meat in Paris has not augmented in proportion to the increase of its population, which may be judged of by the following figures. In 1760, there were in Paris 3,787 marriages, 17,991 births, 18,531 deaths, and 5,031 foundlings. In 1831, there were 8,094 marriages, 19,119 births, 23,015 deaths, and 9,987 foundlings.—*Galvani's Messenger.*

MILLERS AND BAKERS IN FRANCE.

The following replies, which appear in the *Echo*, the principal agricultural paper published in Paris, to various queries forwarded the Editor, respecting the system adopted of fixing the assize on bread, and also the price of flour from the miller to the baker, elicit some interesting details, which would not be very palatable to our London millers, if adopted in the British metropolis. It is asked "how much bread the Parisian baker, obtains from a sack of flour of the first quality weighing 159 kilogrammes, which allowing 2 kilogs for the sack, leaves 157 kilogs., nett, or about 346lbs English?" To which it is replied,—The government calculation from which the tax or assize is levied at Paris, is estimated, that the 157 kilogs of flour will return 102 loaves of 2 kilogs. This mode of calculation has been objected to by the bakers, on account of the quality of wheat and yield of flour varying according to the harvest, though on an average season, the above estimation is acknowledged to be as near the reality as possible. Again—What is the price adopted between miller and baker on selling a sack of flour for making into bread?—It is answered—The law allows to the baker 11 francs per sack for all expenses, as baking, wages, &c.—that is to say, in addition to the average price of flour fixed by the comptroller of the market, which remains stationary for a fortnight, 11 francs are charged as a representative of the expenses of manufacture. Thus, if the average price of flour is fixed at 40 francs per sack, 11 francs are added, making the total 51 francs; and taking the estimate of 102 loaves of 2 kilogs—the price of each loaf is fixed at half a franc or 50 cents, making 51 francs. By this assize therefore, the miller and baker are guided in their transactions in what is termed *les marchés à cuisson*. The miller sells to the baker at a certain period for delivery, and at prices to be stipulated also at a certain time, according to the legal price of bread, with 9, 10, 11, or 12 francs according to agreement allowed by the miller for the *cuisson*, or baking expenses. In order to ascertain the price to be paid the miller, and the discount allowed the baker, the *custom of the trade* is, to calculate that the sack of flour makes one hundred loaves of 2 kilogs, therefore the miller sells his flour we will say with 10 francs deduction for the *cuisson*, deliverable on the 1st of February; on that day, the assize of bread is 53½ cents per 2 kilogs; the baker consequently pays as follows:—

100 loaves made from a sack of	} francs.	cents.
flour at 52½ cents each loaf		
Deduct the baking expenses allowed the baker	} 10	
Leaves for the miller		42

Nothing therefore, is more easy than to establish in this manner the price of flour.

HORTICULTURE—ASPARAGUS, SEA-KALE, RHUBARB, ARTICHOKE.

By Mr. J. Towers, Author of the Domestic Gardeners Manual, &c. C. M. H. S.

(From the Quarterly Journal of Agriculture.)

It has frequently occurred to me that works on agriculture might, without infringing materially upon the object which they have chiefly in view, be rendered the vehicles of much important horticultural information. The culture of the field and garden

are sister arts, and might go hand in hand together; many also of the products of the garden are grown to a still greater extent in the field, and the same natural agents equally act as stimuli upon both. I have therefore resolved to risk an occasional communication upon the cultivation of the most valuable garden vegetables; and though I profess not to instruct the practised gardener, I indulge the hope that the few hints which are derived from successful practice may not altogether be thrown away, or be unproductive of amusement and information.

In order to render the articles as immediately useful as possible, I intend to confine my remarks as closely as I can to those vegetables or fruits that are in season, or may be raised or cultivated in routine, at those periods which coincide with the publication of one or other of the numbers of this *Journal*; and, in the present instance, as the months of March and April are particularly favourable to the culture of asparagus and sea-kale, I shall, in the first instance, advert to them, and then as far as my limits will admit, refer to one or two other subjects to which a corresponding mode of treatment will apply.

I. ASPARAGUS is a native of the sea shores of Britain, though, according to Dr. Hooker, it is rarely found in Scotland: it is worthless in its native original state, but, as every one knows, is susceptible of the greatest improvement by culture, and becomes highly luxuriant in a richly manured, light, and mellow loam. The young sprouting stems, as they emerge from the soil, are used for the table; and these, if suffered to grow, and become fully developed, form one of the most graceful among the productions of herbaceous vegetation: the numerous branching lateral stalks, produce innumerable tufted, minute leaves, of the most lively and delicate green, at the angles (*axillæ*) of the smaller branches two or three pendulous flowers are situated; they are greenish, bell-shaped, and without any particular odour. Each flower consists of a calyx of six deeply cut segments,—six stamens,—one very short style, and its stigma cut into three divisions,—and a germen, becoming a scarlet globular berry, which contains one or more perfect seeds in its three cells. This plant forms, with others of the same genus, one of the families of the Asphodel tribe, *Asphodelæ* of the natural system. How, and at what period the plant was brought into cultivation, it would now be vain to inquire; but it appears probable that, in England, it was little known before the seventeenth century.

The modes of cultivation practised with a view to bring the vegetable to the highest state of perfection, in the different countries of Europe, are too numerous and complicated to be now allowed to, much less described. It will be my aim to point out two processes by which fine highly-flavoured shoots may be abundantly produced. The one is not so much in fashion as formerly, but it possesses great conveniences; the other is more novel, and perhaps more scientific, as it may be made to conform to the hypothesis of radical exudation. The physiological reader will readily perceive, that, by adopting it, he can introduce other vegetables between every row of his asparagus, and thus avail himself of the nutritive matters which their radical processes yield to the soil: however, I shall simplify my directions, and confine them to the process of *forcing* early asparagus. These will be brought under one view in the succeeding notice of sea-kale.

CULTURE IN BEDS.—This is the method that has been adopted for a number of years, and recommended by most writers; but there exists great difference of opinion as to the way in which the beds ought to be formed. Much of the permanent

success will depend upon the nature of the staple soil; and I hesitate not to say, that, unless the garden afford one which is light, loamy, and free from stones of any considerable size, to the depth of two feet at the least, the whole plot ought to be formed artificially, and the best material for the work is the thin turf of a meadow of short growing grass, or that of a common where sheep abound. Such a soil is replete with vegetable, decomposable matters; and, in fact, is very suitable to the cultivation of every product of the garden, unless it be that of a few vegetables which prefer a stiff soil, or one of an entirely opposite description, and approaching to the nature of sand.

Turf may, however, prove a defective material, if it be produced upon clay or stiff loam; but, in ordinary cases, that of a common or sheep-walk is of a medium texture, and breaks down into a rich light earth, which, while it can be digged and pulverized with freedom, is also sufficiently compact in texture and retentive of moisture. If a store of turf, an inch and a half in thickness, could be readily obtained, I should prefer it to any other species of earth whatever. An asparagus bed is not the work of a day; if well laid out and properly planted, it endures for years, and repays any ordinary cost and exertions; but it would be better not to undertake it at all, than to perform it in an unskillful and slovenly manner. If the soil of the plot selected be already free to the spade, deep, and equable, it may be brought into a state nearly equal to good natural turfy loam, by the liberal addition of a well reduced and black leaf-mould. Having thus premised, I would recommend the formation of two beds by the process now to be described; the one will exhibit the progress of the plant from the seed, and perhaps will form the most perfect plantation; the other will come into full bearing at an earlier period, but not by any means so much so as many persons are apt to imagine.

**PREPARATION OF THE BEDS.**—Select a piece of ground of about thirty feet long, ten feet wide, and open to the full south sun, so that its rays may fall in the direction of the length of the beds. Open a trench, two feet wide at one end, and wheel the earth to the opposite end, or rather to a spot two or three feet beyond it; this implies that the soil is good, otherwise it should be wheeled or carted away, to be employed for other purposes. Have ready, and close by the plot, six cart-loads at the least, of well-wrought leaf-soil, sea-weed, or, in default of either, of perfectly good spit-dung. If fine turf be employed, one half of the above quantity of the *enriching substances* will be sufficient. The first and every succeeding trench is to be digged and cleaned out at the bottom, to the depth of two feet or more, as the good soil may indicate. It has been recommended to trench four and five feet deep, with the assurance that a proportionably great and permanent crop of the asparagus would be produced. I have tried two feet and thirty inches, and believe that a perfectly well enriched soil to that extent, will be more efficient than six feet of a dead, cold substratum. At all events, a good six-inch layer of rich manure should be laid at the bottom of each trench, and the first being cleared and so prepared, the soil and a due proportion of the manure are to be put into it, and mixed as equally as possible, till the earth be raised at least six-inches above the old surface level. Thus the work is to proceed, trench after trench, until the entire plot be filled up with *thoroughly moved and incorporated materials*: the last trench must be filled with the earth out of the first. At this stage of the work it will be found that the

reserved earth will be insufficient to complete the plot; in order, therefore, to equalise the surface, it will be prudent to dig the bed again in a contrary direction after an interval of a week; and previous to this operation, I would recommend that about a gallon of common salt be regularly sprinkled over the whole surface; it will tend to bring the bed into that chemical condition, which a constant dressing of sea-weed would induce.

Having thus described the preparation of the bed, I observe once for all, that if turf be in plenty it cannot be made too deep; and this will hold good in the preparation of all garden plots where *vegetables alone* are to be grown. For *fruit-trees*, I believe that eighteen inches of pure maiden turfy loam, without one particle of animal manure, over a six-inch stratum of coarse stones, brick-bats, rocky fragments, or the like, would be a more fertile medium of growth, and one infinitely more conducive to the health of the tree, than double the depth of a highly enriched garden soil. This digression will be permitted, as it includes a general remark applicable to culture in most departments.

The bed thus double-digged will be ready for cropping, and though it might be as well to have thus prepared the soil during the dry weather of the winter, it will yet be in good time if the work be accomplished during the month of March. After the ground shall have settled for a week, two beds each three feet wide, should be marked out, and this width will admit of an alley between the beds, and one on each side of them, more than a foot in breadth. To form these, strain a line on the outside of the beds, and two down the middle space between them, so as to mark out the limits of the beds, throw the earth out of the alley upon the beds, that their surface level may be six inches above the base of the alleys. If turf be at hand, it would be right to place three inverted well cut turfs the whole length of the alleys, and thus to form good and solid walks; a dressing of salt should then be sprinkled over the turf to prevent the growth of the grass. Some persons use a deep layer of ashes; but whatever be the material employed, the beds ought to be raised a few inches above the walks, not, however, to provide for drainage, but to render the future culture convenient, and to give a finished appearance to the plantation.

**SOWING SEED.**—Early in April and in fine weather, stretch a line three times up and down the bed, by means of stakes driven into each end, exactly one foot apart, and the like distance within the sides; draw three drills an inch and a half deep, with the angle of a hoe, and make the bottom of each drill even, by pressing into it lightly a straight even pole, like the handle of a long rake. Scatter asparagus seed as regularly as possible along the drills, or if the seed be known to be good, three or four seeds may be carefully dropped at inch distances, in spaces nine inches apart: the ultimate object is to obtain one good plant, at every space of nine inches, therefore the good sense of the gardener will guide him so to manage the seed-sowing, as to combine economy of seed and time with security of result. Bad seed taken out of very old berries may perhaps scarcely produce one plant from twenty grains, though the seeds will remain good for three or four years.

When the young plants germinate they should be permitted to grow to the height of three inches, or till the leaves become perfectly developed, and it appear which plant will prove strong. If two arise close together, one should be removed as soon as possible, by means of a flat, sharp-pointed stick, and the whole should be thinned out early, so that there may be a space of two or three inches between plant

and plant. The spaces between the rows must be kept clean by passing a flat or Dutch hoe cautiously over the surface, and as the plants acquire strength they may be thinned out to four inches apart; but it would be rather imprudent to attempt a more severe thinning-out during the first year and till the winter pass over, as it will be impossible to decide to what extent extreme moisture of the ground, frost, snow, and other enemies may prove destructive during the torpid season. If the plants stand the winter well, the supernumeraries may be employed to great advantage; but of the use to which they may be turned, and, indeed, of the treatment of the seed-bed during autumn, nothing need now be said.

**PLANTING ASPARAGUS BEDS.**—This is the method usually adopted, and plants two years old from the sowing are generally recommended. I believe that the age is of little consequence as far as security may be considered; and that, three or four year old plants may be employed when it is the object to obtain produce within the period of twelve or fifteen months. Yearly plants are safe also, and these may be planted four inches apart in shallow trenches, or open drills, cut with a spade along lines stretched very tight, and at the distances mentioned before. The plants should be placed so deep as to permit the crowns to be covered with two inches of fine earth, and the roots ought to be let down to their full extent into the ground in a rather open and expanded order, and be perfectly coated, and in contact with the soil. Dry weather at the close of March, or early in April, should be chosen; because the earth, when it is in a free and open condition, may readily be made to fall among the stringy processes of the roots; but when planted, each row should be liberally watered once, to fix the plants securely, and to enable them to start into growth without any loss of time. The routine culture of the beds will be in all respects similar to that before described; and if blanks occur in consequence of the decay of some of the roots, they may be filled up with young growing plants, as late even as the middle of June; provided that each be raised from the seed, or nursery-bed, without injury, and be set immediately during cloudy weather, or in the evening, and copiously watered. The second method of planting, with a view to forcing, will be described hereafter. I defer any farther observations for the present, as respects the general routine culture, merely remarking that, from *seed-beds*, in carefully prepared ground, I have cut very good asparagus in two years, that is, in the third season after the sowing.

**II. SEA-KALE** (*Crambe maritima*) is found on our sea-coasts; it belongs to that natural order which includes all the cruciform flowers (*Crucifera*): the stamens are six in number, two of which are shorter than the others; hence the plant is classed in *Tetradymia*, and is found in its first order, *Siliculosa*: the seed vessel or "pouch" is round, smooth, and about the size of a black currant. The root of the native plant—according to Sir J. E. Smith—is large and fleshy, much divided at the crown. *Herb* very glaucous (*sea-green*), smooth, rather succulent. *Stems* several, from one to two feet high, branched, spreading, leafy. *Leaves* stalked, spreading, or deflexed, large, undulated, and toothed, of a leathery "*coriaceous*" texture; the lowermost somewhat lyrate; the rest roundish acute." *Flowers* in dense terminal clusters, milk-white, yellowish in the centre, *fragrant*. This description accords sufficiently with the appearance of the cultivated plant; and in fact, it is known that the inhabitants of the countries where it grows wild on the shores, have always been in the habit of observing the first progress of the

young shoots as they emerge from the sand, and of cutting them under the surface. In this state they are merely a species of green kale; but by culture the shoots become a most delicate vegetable, which, while it precedes asparagus, combines much of its peculiar flavour with that of the best borecole, or *chou de Milan*. *Sea-kale* was introduced to the gardens about seventy years ago; it is now found in all the best establishments; and its culture, though peculiar, is as easy as the plant is prolific. It can be raised from seeds, and be brought to the table early in the second year. By transplanting, and division of the shoots and roots, it may be propagated abundantly, and at any season of the year, and is so hardy as to withstand any common degree of frost.—The *Soil*, as indicated by its native situation and habits, should be light and sandy, with a slight addition of mild lime, muriate of soda, and wood ashes. The beds ought to be prepared as for asparagus; and of a light sandy turf, with a natural manuring of sea-weed alone, or artificially—with one-fourth of a compost consisting of a perfectly reduced fern, or leaf-mould, nine parts—wood-ashes, one part—and about half a pound of common salt to every barrow-load of the compost. This last chemical compound contains a large proportion of the components of sea-water, and the wood-ashes yield carbonate of lime in its most effective state, also some carbonate of potassa, and fine silix. Three barrows of light sandy turf, and one barrow of the above compost, give proportions which promise to yield a medium of growth of the most permanent and effective character. In it sea-kale and asparagus might be grown for forcing, either side by side, or in separate plots, the treatment of the one would be applicable to the other; and therefore one description will suit both. I only observe, that, if neither turf nor sea-weed can be obtained, good kale can be produced in any light garden soil, trenched in the manner before described for asparagus beds, and manured copiously with wood (not coal) ashes, and the prescribed quantity of common soil. All the difference in the two beds is this, that for *sea-kale*, or forced asparagus, the plot of ground should be large enough to permit the plants to stand in *single rows* three or four feet apart. The rows may be of any required length according to the quantity likely to be consumed. Supposing that six or eight rows, each twelve feet long, be required, then the ground is either to be trenched twenty inches deep at the least, or digged out and replaced with the enriched turf; and the work ought to be completed before March, so as to become settled by the middle or latter end of that month. Between every row there should two stakes be set up at each end, two feet asunder; these will mark the *beds* and the *spaces* between them; thus there may be eight beds and nine spaces or divisions. At the time of *sowing* the beds—(I greatly prefer seed to plants)—leave a space on the outside of two of the outermost stakes, and strain a garden line exactly along the middle of the bed immediately within and next to it; and beginning at one end of the line—but a foot within it—make a small ring or circle with the finger, an inch deep, and three inches wide; or what is better, force a circular piece of iron or wood into the ground to the required depth, and drop three seeds in the ring so formed, equidistant, and at right angles with one another. Form and sow the rings about fifteen inches asunder—centre from centre, the whole length of the line; then cover the seeds to the surface depth with sand, and pat it to a level with the flat of a spade; one row or *bed* will thus be sown. Leave the adjoining *space* of two feet vacant; and proceed to the bed or division next beyond it: sow that, and proceed in the same alternate

order till the plot be completed; when a space exterior of the last sown division must be left, and it will then be found that whatever be the number of divisions sown, that of the unsown spaces will exceed it by one. The plan thus laid down is grounded upon the practice of the celebrated Bath cultivators; and nothing can exceed it for the facility it affords to good tillage, and orderly, convenient forcing. It must be apparent to every one versed in horticulture, that *Asparagus* can thus be sown or planted, and be cultivated—for forcing—with every advantage afforded to sea-kale, as will be further shewn in the detail.

If the seed be good, the season propitious, warm, and moist, germination will rapidly advance; and when the plants appear, they may be secured from vermin by sprinkling around and within them a good covering of wood-ashes (three parts,) blended with soot and powdered lime, of each one part. If weeds arise and threaten to surmount the plants, they must be kept under by surface-hoeing to the depth of an inch, with the "Dutch," or thurst-hoe. Perhaps three plants will rise from each ring, and these, indeed, all that grow, must remain till they begin to interfere with each other; then, one only, the strongest, must be left, and the others drawn, or raised up; so that a complete row of single plants, from one foot to 15 inches apart, finally remain. The young supernumeraries may be set out in rows, to grow for succession, or be thrown away if no more stock be required. The plants in the rows will grow luxuriantly, and become very large, so much so as, in all probability, to come in contact, forming one connected line of sea-green foliage. All the culture during the summer and autumn, will consist in keeping the beds clear from weeds, and in digging alternate spaces two or three times, to the depth of nine inches, so as to pulverize and render the soil as fine as possible. At the two last operations (say in July and October,) it would be as well to incorporate with the soil a two-inch layer of decayed leaves, mixed with one-fourth part of pure wood-ashes.

The reader will be very careful to avoid sea-coal, or even pit coal ashes. It formerly was the custom to cover sea-kale with conical hills of those ashes during winter, and one out of three or four plants perished, the damage being ascribed to mice or moles. I never have lost a plant since I left off that acrimonious chemical compound, styled ashes, nor could I, by any means keep my bed entire, while I employed it. Its destructive influence has at length been admitted, and sea-kale now enjoys a regular growth, and repays its cultivator. No forcing ought to be attempted during the first winter; but it would not be amiss, after clearing off all the old leaves, to strain a line along the edges of the beds, and, cutting the earth by it three inches deep, to mould up the two feet beds with the earth taken to that depth from the intermediate spaces. A tall marking stick should, however, be placed near the centres of the plants. After the "earthing up" a blanching-pot, wooden box, or old bee-hive, is to be set over every plant. A straw-hive is indeed an excellent material. It is sufficiently strong, warm, and impervious to light, even when used alone, without leaves, for blanching. A small or even a very tolerable gathering of fine white kale will be the result of this treatment, earlier or later, according to the season and climate; and, in cutting it, the knife should be passed below the surface of the stratum of soil that was added, so as to bring up each full-sized shoot in a compact state, and not in detached leaves. The smaller sprouts ought not to be cut; and, when all the large ones have been taken, the superposed

soil should be drawn back into the spaces, and the whole plot reduced to an even surface-level. This work will, it is presumed, be performed about mid-April, and then a knife, or very sharp-edged spade, should be passed through the shoots, so as to cut off every one that rises above the original level of the bed. This cutting will induce the plants to send forth a number of fresh shoots, and prevent, in a degree, the protrusion of flower-stems. The routine culture of the second season will comprise weeding with a flat-hoe, digging and enriching of the spaces, as before directed, and the immediate excision of every flower-stem that may be sent up.

FORCING.—(These directions will apply equally to asparagus in single rows, by the second method.) After the leaves of the sea-kale, and stems of asparagus have become inactive, remove the former, and cut off the latter. Mark each sea-kale plant with a tall stick, dig and mould up the beds with fine earth from the spaces, as in the previous season; but now, and in each succeeding year, dig out, and remove to a spot at hand (as convenience may point out,) the earth of each space, on the sides of those rows which are to be excited, so as to leave trenches one foot deep. The plots ought to be so contrived as to furnish three distinct forcings, the first to commence late in November, to be cut at the close of the year; the second about the first week in January; and the third early in February. A fourth reserve ought to come in at the natural season, blanched but not forced in April. The trenches are to be filled to the level of the tops of the line of pots or covers with tree leaves, blended, if possible, with one-third part of fresh stable-manure. When this level is attained, the pots, and spaces between them, must be covered to the depth of two feet with the same materials; but for asparagus, which can have no pots, leaves alone are recommended to the depth of 18 inches. If shallow boxes or troughs, formed of three strips of boards fastened together, and five or six inches deep, could be inverted over the whole line of asparagus, the mixture of dung and leaves might be safely employed.

The bed of fomenting material, in either case, ought to form a compact mass of equal depth; and this it would be advisable to cover with straw, hurdles or thatch, to keep out excessive rains, and to retain the developed heat. Trial-sticks should be thrust deeply into the masses; and if these, on being withdrawn, feel gently warm, the work of forcing will proceed regularly; and kale and grass will be procured in succession from Christmas to the end of March; to be succeeded by the crops from the unexcited bed. After forcing, and clearing off the leaves, &c., the trenches are always to be filled up, and the surface-level restored. The slight difference to be observed in treating these two delicious vegetables, will soon be sufficiently obvious to every cultivator of discernment, and need not be alluded to at this time.

III. RHUBARB.—My notice of this exquisite vegetable shall be comprised in a few lines; but these I trust, will avail to extend its culture more and more; for any thing more productive, salubrious, profitable, and expressly suitable to the purposes of the cottager, can scarcely be found in the entire list of vegetable productions. A few years only have elapsed since the rhubarbic hybrid, green rhubarb, was cultivated for tarts, and held in very slight estimation; but since the introduction of the larger (giant) varieties, the demand has increased with surprising rapidity. Of the two sorts which I earnestly recommend, one is called, if I mistake not, *Ratford's Scarlet Goliath*; and the other is a small red variety, which is crimson throughout when boiled or baked. These will supply

the table from April to August, and suffice for every purpose.

**CULTURE.**—Let the ground be prepared precisely as for asparagus beds. Select clean offsets, with two or three bold eyes: the first week in March is a very suitable season. The eyes or buds of the Goliath will be of a deep, rich red, hence its name: the leaves, however, and stalks are green, though of different hues, and the latter are spotted and streaked with red. In the smaller pink variety the red tint prevails throughout.

The plants of the great Goliath should be set firmly in the soil, five feet apart, or five feet one way and four feet another; the smaller kind may be set three feet asunder, plant from plant, giving a free watering to each to settle the soil among the roots. Dry weather, an open condition of the ground, and a temperate, unfrosty state of the air, should be preferred. When the growth becomes established, the ground must be kept free from weeds; and if dry weather supervene, water ought to be freely given around the roots, two or three times, with intervals of four or five days.

Not a leaf or stalk ought to be touched during the first year; and in autumn, when the leaves are all decayed, they should be laid in little trenches formed along the centre of the spaces between the rows, sprinkled with a handful or two of salt, and covered with the earth that had been digged out. Thus the plant will itself furnish a portion of the manure that will annually be required. As winter approaches, a coating of well-decomposed stable manure or leaves, or a mixture of both, two or three inches deep, should be laid round each plant, to the extent of two feet; and in the open weather of February, the whole bed must be forked over.

As a proof of the excessive productiveness of the *Scarlet Goliath*, I need only mention, that, in the second week of March 1831, twelve plants were set in ground prepared for asparagus. In June the leaves met, and the whole plot was covered. In 1832 the plants yielded profusely, many leaves measured above a yard and a half over the surface, the footstalks being an inch and a half broad, and from two to three feet long. The outside leaves were, as required for use, stripped off by an oblique pull, not cut; the family was amply supplied till July and August, and yet the plants increased: the neighbours also were furnished with leaves throughout the Summer, and with *offset-plants* in the succeeding Spring. During the two past seasons the root-stocks increased to such a size, that, when it became needful to remove some, it required a barrow to contain the weighty mass that was raised, after great labour, from the soil. If any one try the experiment in favourable soil, and with any thing like judicious management, he will scarcely fail to discover that the growth and production of the plant will exceed every demand that can be justly made upon it.

**IV. ARTICHOKE** (*Cynara Scolymus*). *Syngenesia Polygamia Æqualis* (Cl. xix ord 1.), *Linnae*; tribe **CARDUACEÆ**; among the *Compositæ* or the compound flowers of the natural "*Jussieuan*" system is, as the tribal name implies, nearly related to the thistles; the observant natural physiologist must be aware of this from the imbricated order of flowering, and the dense close head which contains the blueish flowers, and the seeds surmounted by a feathery down (*pappus*.) In England the full heads only are eaten boiled; these heads consist of a fleshy receptacle, on which the flowers and their bristly appendages are based; and of an alternating series of scaly bracteas or floral leaves (*involucrum*.) that are fur-

nished with a pulpy substance at and above their point of union with the base.

**CULTURE.**—All that has been previously said as to the preparation of the ground for the asparagus, will apply to this valuable autumnal vegetable: it delights in a rich and light soil; therefore a sandy turf will supply the appropriate medium of growth. *It is propagated by suckers* or offsets taken from old plants, and planted in March and April, either in a bed of three rows, four or five feet asunder, the plants three feet from one another, or in single rows between other vegetables. The soil ought to be previously digged and laid even; and the line, being strained very tight, each sucker should be planted by the dibble or garden trowel, and fixed securely in the soil. Nothing tends so effectually to promote the growth of any sucker or offset as to place its base, and the lower parts or joints of its stem, firmly in recently removed ground. The vital principle thereby becomes stimulated, and, to speak chemically, is acted upon by the electro-gaseous products of the soil at the moment of their development. Water, if the weather and soil be dry at the time of planting, ought to be then freely given around the plants, and, subsequently, more than once, in order to fix them in the soil, and prevent stagnation of the vital fluids.

The subsequent culture consists in keeping the ground clean and moderately open; and, at the approach of frosty weather, to draw earth about the stems, as in landing up celery, but not bringing it to so acute a ridge at the top. Artichokes may be abundantly produced in the autumn of the first year; some plants will not, however, be prolific. The fruit ought always to be gathered, and the stems cut close off prior to the winter earthing-up. In the second season the plants will become abundantly more prolific, and great care should be taken to preserve them from extreme frost by straw, haulm, or evergreen boughs, laid upon the ridges of the soil so as to form a sort of roof over the herbage; but these coverings should be removed in rainy weather. The heads may be preserved throughout the winter and early spring months, by inserting the lower ends of the stems in sand, under shelter of an out-house or cool dry cellar.

The artichoke plant produces abundance of suckers, which ought to be detached in March—not in the torpid season, and of the best of these fresh plantations may be formed. We suggest, on the ground of the doctrine of *radical excretion*, that, if the plants stand in single rows widely apart, between which a rank of potatoes, beans, or peas, be grown,—the new suckers be planted on the site of such crops, in order to reap the benefit to be derived from the matters ejected into the soil by their excretory organs, and by the actual deposition of detached vegetable fibres.

Thus artichokes and annual crops may be made every two or three seasons, to alternate or "rotate" with each other.

**USES OF SLATE.**—Slate is coming daily more extensively into use; it is being employed for paving the area in front of the New National Gallery, and also for church-yard memorials, in place of stone. It appears from a paper read at a recent meeting of the members of the Architectural Society, that a slab of Welch slate, one inch in thickness, is equal in strength to a piece of Yorkshire stone of six inches, or of Caithness or Valentinia stone of two inches in thickness.—*London's Architectural Magazine.*



EMIGRATION.

SIR,—In the *Globe* of the 12th inst. I read a letter addressed by you to the Editor of that independent and respectable journal, wherein you unsparingly condemn him for opinions expressed a few days ago in an editorial article, with reference to certain measures recommended by the Irish Poor Law Commissioners, for bettering the condition of the wretched and long neglected peasantry of that country.

Before you so arrogantly claim to yourself such exclusive knowledge as to the preceding subject, and unhesitatingly pledge your veracity and challenge contradiction for your assertions, you should have taken the trouble to have obtained *correct* information as to the *important* item of expense, claiming as you do, on the score of economy, great superiority in favour of bog draining, and squatting the wretched peasantry on a patch of *floating bog* or waste land, as if afraid to allow them to taste the sweets of improvement by their being put on the sure path to independence by means of a judicious system of emigration. You state that the sum necessary to remove a pauper labouring emigrant from Ireland to Canada will cost *twenty pounds* sterling.

Now, Sir, I will tell you that your statement is more than *four times* greater than the fact; and it is evident you have been made the dupe of asserting as great a miscalculation as ever was put on paper.

I cannot for a moment think you would deliberately state that which you know to be untrue, therefore my chief object in thus noticing your letter is to caution you from such hasty conclusions in future, and not to suppose that any measure can be made palatable to the public, and to obtain the countenance of men of reflection and judgment, by such unfounded statements.

I beg to tell you, Sir, that a labouring pauper adult emigrant can be removed in a satisfactory manner from a port in Ireland to a situation in upper Upper Canada, where full employment can be obtained immediately on his arrival, for the sum, considerably *under 5l.* I will, however, adopt that sum; the items of disbursement as follows:—

Passage from a port in Ireland to Quebec, including berthing, fuel, water, and medical aid.....	£2	0	0
Ample provisions 60 or 70 days, consisting of potatoes, oatmeal, butter, fish, bacon, molasses, tea, and sugar.....	1	15	0
Capitation tax at Quebec (Currency of Canada) .....	0	5	0
Steam-boat transport from Quebec to Toronto, or any landing at the head of Lake Ontario, in Upper Canada .....	0	17	6
	£4	17	6

Thus, sir, for less than *5l.* sterling for each adult, I will guarantee to remove one thousand able bodied labourers from a port of embarkation in Ireland, and place them in a situation to insure them full employment, and, if sober and industrious, certain prospects of independence, raising them from a state of moral degradation and wretchedness to a place among civilization and comforts. Can you do equal good for the poor labourer by expending *5l.* in providing him with employment at home? and will his prospects be equally favourable at the termination of such outlay? If you wish for further positive facts in reference to the preceding subject, I shall be very glad to favour you with them, but not through the medium of a newspaper correspondence.

I, remain, sir, yours, &c.  
HIBERNICUS.

April 15.

EAST LOTHIAN AGRICULTURAL SOCIETY'S SHOW AT HADDINGTON.

HADDINGTON. — The show of Cattle, Bulls, Horses, &c. for the premiums offered by the East Lothian Agricultural Society, came off here on Friday April 1, and was in the opinion of all who attended, by far the best and most interesting that we have ever had. The stock shown was all of a very superior description, and the judges experienced much difficulty in awarding the premiums, owing to the excellence of all. They were adjudged as follows:—

1. For the pair of fattest cattle of the Aberdeen, Angus, Fife, or West Highland breed, to Mr. James Bogue, Snadon.
2. For the second best ditto, to Mr. Ferguson of Raith, M. P.
3. For the pair of best cattle, bred in the county, to Mr. Robert Walker, Whitelaw.
4. For the pair of second best ditto, to Mr. George Reid, Ballencrieff.
5. For the five best black-faced Wadders, to Mr. George Reid.
6. For the five best half-bred Leicester Hogs, to Mr. Brodie, Amisfieldmains.
7. For the best short horned Bull, to Mr. Brown, Halls.
8. For the second best ditto, to Mr. Mylne, Bolton.
9. For the third best ditto, to Mr. Walker, Whitelaw.
10. For the best yearling Bull, to Mr. Brown, Halls.
11. For the best cart Stallion, to Mr. Meikle, Bathgate, for his horse "Farmer's Favourite."
12. For the best year-old colt, to Mr. Tweedie, Coats.

The judges of the fat cattle and sheep were Messrs M'Gill, Moffat, and Hutchinson; of the Marquis of Tweeddale; and of the horse Mr. Walter Cosnar.

Besides the cattle shown for the four first premiums, a lot of 28 was exhibited by Mr. Brodie, East Fortune, and another of 20, by Mr. Howden, Lawhead. An account was given in this paper on the 23d March, of the manner in which these cattle were severally lotted out and fed, and much interest was excited by the exhibition. A printed report of the manner and expence of feeding was circulated on the show ground, and being put into separate pens, each lot marked and numbered, the result of both experiments could be examined and appreciated by all. The following table shows the original cost of the cattle, the quantity of food consumed, and the valuation put upon them by the judges.

MR. BRODIE'S.

- Lot 1. Fed on turnips alone, cost 12l 15s, feeding for 22 weeks, 5l 3s valued by judges, 21l 10s.—Profit, 3l 12s.
  - Lot 2. Fed on turnips and potatoes, cost 12l 15s, feeding for 22 weeks, 6l 9s 9d, valued by the judges, 22l 10s.—Profit, 3l 5s 3d.
  - Lot 3. Fed on turnips and linseed cake, cost 12l 15s, feeding for 22 weeks, 7l 7s 9d, valued by the judges, 25l.—Profit, 4l 17s 3d.
  - Lot 4. Fed on distillery grains, &c., cost 12l 15s, feeding for 22 weeks, 5l 12s 9d, valued by the judges, 21l.—Profit, 2l 12s 3d.
- We understand that all this lot has been sold at 24l each.

MR. HOWDEN'S

- Lot 1. Cost 7l, consumed in 22 weeks about 49½ tons of Swedish turnips, and are valued by the judges, at 12l 4s each.
  - Lot 2. Cost 7l, consumed about 24 tons of turnips, and 16 tons of potatoes, valued at 13l 12s each.
  - Lot 3. Cost 7l, consumed 24 tons of turnips, and 1¼ tons of beans, valued at 14l 16s.
  - Lot 4. Cost 7l, consumed 16 tons of potatoes, and 1¼ tons of beans, valued at 14l each.
- It is understood this lot is sold at 14l each.

The above experiments show that the most expensive feeding yields the greatest profit. The fleshers to whom the cattle have been sold, are to report the value of the several lots after they are slaughtered, which will carry

out the experiment to the utmost, and show to feeders generally, what sorts of food are most profitable, both to themselves and to the butcher. A premium of 20*l* was awarded to both gentlemen, the reports of the manner in the experiments were respectively conducted have been considered highly satisfactory.

## THE TRADE OF GREAT BRITAIN.

(FROM THE BANKER'S CIRCULAR.)

SIRs,—The following statement exhibits the extraordinary increase which took place in the exports of British manufactures in the year 1835, compared with the year 1834. It will be seen that, in every one of the fifteen articles, the amount—taking in real, not official value—is greater, (tin alone excepted); the export of this commodity in both years is nearly the same. We place the fabrics of the loom at the head on account of their importance, and the excess in the amount exported being in these the most striking and extraordinary.

	1834	1835.
Cotton Yarn .....	£5,211,015	£5,709,041
Cottons .....	15,302,571	16,394,590
Linens .....	2,579,658	3,226,394
Woollens .....	5,975,415	7,046,829
Silks .....	637,198	972,031
	£29,705,857	£33,348,888
Hardware and Cutlery..	1,485,233	1,835,142
Iron and Steel .....	1,408,872	1,680,750
Copper and Brass .....	961,823	1,081,554
Lead and Shot .....	142,513	197,474
Tin .....	33,327	33,238
Tin Plates and Wire....	324,559	368,429
	£4,354,237	£5,196,587
Coals .....	220,746	242,369
Glass .....	496,872	640,867
Earthenware .....	493,382	538,426
Wool .....	192,176	387,416
	£1,403,176	£1,809,078
Total of the three classes	£35,463,360	£40,354,553

Most persons of inquiry and research have regarded with extraordinary interest the great activity and long continued prosperity of our manufactures, viewed merely as a statistical question; for whatever the ultimate result of the increased production may be, whether the exporters of our goods may finally realize, in substantial value, those anticipations of profit which have been one of the main causes of the increased production, or whether some of the markets may be overstocked, and the returns tardy and scanty, it is quite clear, we think, that prosperity to the mere manufacturer has been secured by the state of trade prevalent for more than two years past. To analyze the sources of this prosperity, to describe its character, and to be able to form a correct judgment concerning its probable duration, would be at once useful and interesting. The materials for such an undertaking could not, however, be very readily obtained, because no man can have access to the circumstances of every individual merchant; and yet without knowing what proportion of a brisk trade is to be ascribed to the effect of credit—renewed, enlarged, or prolonged credit—and what proportion to a real scarcity of goods in the markets of consumption, it would be impossible to take

a full and correct view of this matter. The general circumstances bearing upon it we may at least endeavour to render serviceable.

The most remarkable feature of the present state of manufactures and trade, is the great activity prevailing, not in two or three, only, but in all departments of manufacturing industry. The increase of the Cotton trade does not show itself more conspicuously at Manchester, than that of the Linen trade does at Dundee—regard being had to the previous state of the development of the two branches of trade respectively, and attention being given also to the relative facility or difficulty in obtaining the raw material for supplying them. Every branch of the Woollen trade has been marked by the same difficulty in obtaining the raw material in sufficient abundance to meet the increasing orders for goods, and the demand has been almost equally strong for the finest broad cloths of Trowbridge, Stroud, Leeds, and Huddersfield, and for the coarsest druggets, blankets, and carpets, of Witney, Kidderminster, Dewsbury, and Kilmarnock. The trades of Sheffield and Birmingham, though the basis of both is metallic, differ as much as the trade in Norwich crapes and bombazeen differs from the broad cloth and carpet trades; yet Sheffield has corresponded with Birmingham in activity to as great an extent as one town can do with another, the inhabitants of which are more enterprising and speculative. Nor is the same general feature to be seen alone in these great divisions of the manufacturing interest; it is equally discernible in the minor departments; the Hosiers of the midland counties, the Potters of Staffordshire, the Glovers of Worcester and Yeovil, and the Shoe manufacturers of Stafford and Northampton, all testify to an improvement and an advance in their condition.

It may not be possible very distinctly to indicate one general cause for this universal and almost uniform effect, but still we think that cause will be found to exist, substantially, in the great and prolonged contraction of confidence at one period, and its great and long continued extension at another. It is easy to say that the effects of the panic of 1825 have not yet subsided; a true history of the causes, the extent, and operation, and of the consequences of that convulsion, would be one of the most valuable offerings to the men of business and the politicians of the age—to the manufacturer and merchant as well as to the statesman. We some time since called attention to the fact of five British companies having lost four millions sterling in attempting to carry on mining operations in foreign countries. This was a startling case; it was, however, nothing more than a type, and a very imperfect and insignificant one, of the wide spread ruin which the familiar term "the panic of 1825" ought to indicate. The measures to which the Ministers of 1822 resorted for the purpose, to use their own language, of reviving a spirit of speculation, had the effect of raising the prices towards the close of the following year, and this temporary prosperity was carried to excess in 1824 and 1825. The effect, however, was at once annihilated when it placed the Bank of England in jeopardy, a result which—if the Government had had the requisite knowledge concerning the operation of the great causes of speculation and activity, produced by the means of excitement then in their contemplation—ought to have been foreseen and considered by them, before they adventured upon so hazardous an experiment for the relief of distress.—One of the consequences of the

relaxation, effected by the measures of 1822, was to put off for a few years the disasters which subsequently befel the great merchant-bankers of Calcutta, and the merchants of our long settled colonies in the West Indies. If the policy which dictated the relaxation had been adopted in 1821-5, as the rule of conduct for the Government, those great interests in the West and in the East Indies might have been saved altogether.

These circumstances are exceedingly important to be borne in mind when we are attempting to ascertain the precise character of the present state of commercial prosperity and its probable consequences. The panic ruined old, and formerly opulent, firms in England, in great number, but if that had been the whole mischief, energies of enterprise and industry would much sooner have recovered their elasticity and force. Instead of a general revival taking place in commercial and manufacturing operations in 1833 or 1834, it would probably have commenced in 1828 or 1829. Confidence, wherever credit was necessary to put industry into motion, was completely paralyzed by the convulsion of 1825, and it was prevented from recovering by the large failures among merchants, who had, directly and indirectly, contributed much to furnish the manufacturers with orders for their goods. These failures continued to occur for seven years subsequently to the panic, and tended much to keep manufacturing affairs in a depressed and unnatural condition. The period when this great and signal check to the development of industry and the extension of commerce took place, was the precise period when all the means of production would, in a natural and sound state of things, have been in full vigour and complete efficiency. After a war of more than twenty years duration, during which England alone had maintained her commercial greatness, several years would necessarily elapse before the capital of her bankers, merchants, miners, and manufacturers, could become properly adjusted to the new state of things under a peace, and ten years after its final termination would be the time when the utmost vigour might be expected to prevail. The panic therefore produced more effect on the pursuits of industry than could be effected by a declaration of war; and was nearly equal, in its destructive and depressive agency, as far as the interests dependent on the industrious are concerned, to a decree compelling every borrower of money to pay thirty shillings for the pound to his creditors.

The panic was not, therefore, an ordinary commercial convulsion, like those of 1793, 1797, 1810, and 1816, the ruinous effects of which soon passed away, and were, in a national sense, speedily compensated by the enterprise and activity which succeeded them, but the immediate mischief was of unparalleled magnitude, and its repressive effect upon industry and commerce was of the most protracted and extraordinary character. And it is curious to observe how this view of the subject has been illustrated and confirmed by the operations of the banking system. The old bankers would naturally be more strictly circumspect and cautious after the destruction of credit which took place towards the close of the year 1825. But the Act permitting the formation of Joint-stock Banks in England and Wales passed in the early part of the year 1826. How can we account for this law, so urgently required, as it had been represented by the Ministers to be—remaining almost a dead letter for five years after it had received the Royal Assent? How came it that the public, generally

so much alive to their own interest, could not discover its urgent necessity for so long a period? Undoubtedly part of the answer is, that the people were in general satisfied with the existing banks. But Lancashire—now adding to its wealth and population every year, in amount equal to the entire wealth and population of several of the smaller counties—how came this important district to be backward in perceiving the advantages of the new system? We believe there was no Joint-Stock Bank formed in Manchester or Liverpool for nearly five years subsequently to the panic; and that last pregnant and important word accounts for the whole mystery. The elastic spirit and natural resolution of the people continued so much depressed by the accounts of the failure or difficulties of eminent firms connected with distant markets for supplying the consumers of our manufactures, that there was no disposition to enter upon new projects. Every man's attention was directed to the prevention of further dilapidation upon his own possessions and circumstances.

This state of general depression was far from being limited to England and her colonies. It extended to all the foreign markets. Less to those of the United States of America than any other because their banking and credit system contributed to keep their great internal resources free and fruitful. But with this qualified exception, the state of commerce was languid and inanimate for seven years succeeding the panic; and some of the most extensive failures connected with the East and West India interest, occurred in the latter part of that term. The bankruptcy of the eminent firm of Manning and Anderton took place in 1831, and some time after, the unexpected failures to a great amount in Petersburg, Prussia, and Hamburg. These facts show the insidious, but powerful operation of the one great cause of disaster which continued to produce its inevitable consequences for so long a period.

Then another cause contributed greatly, in the years 1829, 1830, and 1831, to produce a similar result; we allude to the political discontents, agitations, and alarms which burst forth into open insurrection in France, Belgium, and some of the minor states of Germany. The destruction of confidence in France was so great at one period that, united with the very general disposition to hoard coin, there was great danger of all the operations of industry in the great towns being entirely stopped. It was the effort which Lafitte made to prevent such a catastrophe, by lending his money freely to the manufacturers and traders of Paris, and other populous cities, that caused his banking-house to suspend payment. We say "suspend," because we are to understand that that liberal-minded individual has discharged all his obligations, or is prepared to do so, and is proceeding to commence business as a banker with a fortune which is still large, recovered from the wreck of his former wealth. Commercial men describe the state of trade in France for more than two years subsequent to the revolution of 1830 as approaching to an interdiction of all the ordinary interchanges in business. And France never wholly recovered from this plight till within the last two years.

This brief reference to a long antecedent state of depression appeared to us necessary to an accurate examination of our present condition. The long protraction of the pressure was one of the causes of the great rebound which followed the removal of that pressure. And it is a matter of

serious import—of the first necessity—that the difficulties which encumbered mercantile pursuits from the year 1819 to 1833 should be clearly seen, understood, and admitted, or the nature of the present state of activity and comparative prosperity will never be correctly apprehended. There has been a somewhat similar action simultaneously proceeding in most great commercial countries, which has led to somewhat similar results in all. It is necessary to bear this circumstance in remembrance when we would understand the nature of the present prosperity, and be able to estimate the kind of convulsion that would be likely to take place, if any serious check to confidence should arise. The part of the subject which is of more immediate importance is that part which would commence where we now leave off, viz. an examination of the working of the machinery which has been instrumental in propelling enterprising men forward in a career of adventure and exertion, when the general pressure, to which we have here alluded, began to be abated and at last partially removed.

We are well aware that the nature of our present prosperity is an obstinately litigated question amongst men prone to enquiries concerning the operation of the causes of wealth. While some of the ablest men in the country say that the alleged prosperity is hollow, and that it will never bear the test of the ultimate winding-up and settlement, which has not yet arrived; another party, and this of course comprises the governing body, assert that prosperity was never based on a firmer or more stable foundation, and that, so far from there being any grounds for apprehending mischief, we are only just entering upon a course of unexampled activity and profit. The first contend that a convulsion, pregnant with wide-spread ruin, may be expected to happen speedily, while the latter think that scarcely any probable cause can spring up to interrupt our present tranquil and satisfactory state. We shall endeavour, in the next Circular, to indicate the grounds from which something like a correct judgment may be formed on this contested question.

#### FOR THE SHREWSBURY CHRONICLE.

MR. EDITOR,—Can you inform us what the Agricultural Society of this county are doing? or what is the purpose of their meeting just now. Was the prospect of the farmer ever much brighter than it is at this moment? certainly not within these last five and twenty years.

Will the members of this society petition his Majesty and say—“We your Majesty’s loyal and dutiful Conservative subjects, do hate and abhor every act and deed done by any Minister of the Crown, so long as that Minister is supported by that infernal Irishman, Daniel O’Connell?”—Better they should recommend to all landlords, whose tenantry are in arrears of rent, to profit by the good example of that Prince of them, Sir Watkin W. Wynn, Bart., who by one short order to his principal Agent and Auditor, diffused more happiness and more industry in his country than had been done for years, and which was done in these words:—“Wipe off all the arrears of my tenants.”

Let other landlords do alike: let them give their tenants a fair start again:—and I warrant they will do. “Rub out old scores and begin again,” says the beaten man.

Confidence is all that is wanting between landlord and tenant. The former can establish it if he likes.

I am, Sir,  
Your obedient Servant,  
A SHROPSHIRE FARMER.

#### CONSIDERATIONS TO BE LAID BEFORE THE COMMITTEE ON AGRICULTURAL DISTRESS.

That the amount of profits derived from agriculture are regulated by the price of produce, as compared with the expenses of cultivation—

That is, they consist of the surplus that remains after all the expenses attendant on cultivation have been paid.

That of late years, though the price of produce has fallen greatly, yet that the expenses attendant on cultivation have not fallen in the same proportion; consequently the amount of profit is very much reduced.

That the amount of rent which the cultivator of land is able to pay to the owners for the use of the land, depends on the amount of profit that he can obtain in cultivation.

Therefore, that in the same proportion in which the profits are reduced, so the real power to pay rent is reduced. Consequently, the rent of land can be permanently secured only by means which shall preserve a certain profit in cultivation. Therefore, that as far as the expenses of cultivation on the prices of produce are dependent on legislative enactments, so likewise are the profits of agriculture dependent on the same enactments. Consequently, the amount of rent which the cultivator is able to pay for the use of the land is also dependent to the same extent on these enactments.

That as far as legislation can effect the object, the owners of land have a just claim to such an adjustment or balance of prices and expenses as shall permit the obtaining such profits in agriculture as will secure to the cultivators the power to pay to the owners that proportion of the produce in the shape of rent which has been deemed fair for a long series of years.

That for a long period it has been deemed just to the owners of land (taking into consideration the price which produce bore) not to lay any burdens on the cultivators of land which should prevent their being able (on land of average quality) to pay about one-fourth of the produce to the owners of the land in the shape of rent.

And that all the public and private transactions of the country have been based on the allowed principle, that this amount was the just property of the owners of land.

That the prices of agricultural produce have now fallen to such an extent, that (taking into consideration the necessary expenses attendant on cultivation), the profits of agriculture are so reduced, that on land of average quality, the produce returns very little, if any thing, more than is required to cover the necessary expenses; so that the real rent of average lands, even if it has not been annihilated, is, at all events, reduced far below that point, which for many years been considered fair.

That the cultivators of land (from the difficulty of obtaining other employment—from ignorance of other kinds of business—from delusive expectations, and from competition produced by these previous causes) have long been, and are now paying far more in the shape of rent, than the profits of agriculture enable them to do, and are therefore becoming poorer every day—not only by the loss of their own profits, but also by the diminution of their capital. But that it cannot be expected that the cultivators of land will continue to do this many years longer.

Therefore, under present prices and expenses, the owners of land of average quality will be obliged ultimately either to submit to an extreme reduction

of rent, if not to its total annihilation. Or else, displacing the present race of cultivators, they must themselves become cultivators, and be content with the mere profits of cultivation, having lost all those profits of ownership which have hitherto been considered their just property.

But if the present race of cultivators are to be preserved from ruin, and if the property called rent is not to be annihilated, the expenses of cultivation and the prices of produce must be adjusted afresh, so as to restore such a profit in cultivation as shall enable the cultivators again to pay the fair proportion of the produce to the owners.

The cultivators of land have already reduced those expenses over which they possess any control to the lowest point possible; but they have no power to reduce that part of the expenses which is dependent on the direct or indirect taxes and burdens; and as the cultivators practically have no power over prices, they are unable to relieve themselves from their present ruinous position. That the expenses attendant on cultivation are dependent to such an extent on the effect of direct and indirect taxes and burdens. That if these were removed or reduced, the necessary amount of profits might be restored. But if these taxes and burdens when so removed are still to be paid, they must necessarily fall on some other class of the community instead of falling on the cultivators of land.

If they fall directly on the property of the kingdom, as the landowners would then be receiving their fair amount of rent, they would also pay their fair proportion of these burdens. But if it be determined that the taxes, &c. now falling directly or indirectly on the cultivators of the land, are so interwoven with the whole system of taxation and the whole external and internal arrangements of the country, that they cannot be advantageously removed or reduced to the necessary point; and that if they were laid directly on property it would be injurious to the general interest of the country, by driving out capital and bullion, &c.—if this be the case, these burdens must be considered as immovable, and other means of relief must be adopted.

If, then, it be just and necessary, that the property of fair rent should still be preserved to the owners of land, since *the expenses cannot be reduced*. The prices of produce must, if possible, be so raised as to restore the necessary profits under present expenses. For if it be just that the value of the property of landowners should not be annihilated by taxes, &c., then is it also just, between one part of the nation—viz., *the consumers of produce*, and another part—viz., *the owners of land*, that the consumers shall pay such a price for the produce as will secure the required profits in cultivation. This increased price will be charged from one grade of the productive classes to another, on their labour or manufactures, until the additional price will be paid at last, by those who are consumers merely, and not producers, and who, having nothing to sell, cannot reimburse themselves.

That prices would be raised in three ways:—

1. By diminishing the quantity of produce in the market.
2. By increasing the actual demand for the present quantity.
3. The quantity of produce and the demands remaining the same, by increasing the quantity of money in circulation.

The first of these could only be effected in a long process of time, during the whole of which time severe injustice would be inflicted on all the interests of the country, by a gradual diminution in the supply of food; while at the same time the greatest pos-

sible injustice would be done to the owners of land below an average quality, as well as to the occupiers and labourers, for this must be gradually driven out of cultivation.

The second means of raising prices is evidently impracticable.

Therefore the third alone remains—viz., to increase the quantity of money in circulation.

The quantity of money in circulation—that is, the quantity of pounds, as at present regulated by the quantity of ounces of gold which can be retained in this kingdom, every pound being payable on demand, in about one-fourth of an ounce of gold.

But if every pound were made payable by a smaller quantity, say, for example, the one-eighth part of an ounce of gold, then, the quantity of gold in the country remaining the same, and the regulating system the same, there might be double the number of pounds in circulation, since the quantity of pieces of gold into which each pound is convertible would have been doubled; consequently prices might, by an operation of this kind, be raised to that point, which is admitted to be a just one as regards the owners of land and the consumers of food.

If the foregoing statements are true, and the reasoning correct, it ought no longer to be asserted that the owners of land have no just claim to higher rents than the present prices will fairly afford them, and that it is not the fault of legislation that the property of the owners of land has become worthless. Their rents are, or must be, reduced or annihilated, because prices have fallen, while taxes, &c., have not been reduced in the same proportion. It is not the fall of price merely, but the fall of price acting simultaneously with the taxes, &c. At the time landowners consented to bear these taxes, &c., the price of produce was still high enough to preserve the necessary profits to agriculture.

Therefore unless prices have been lowered by such an increased production of food as renders the reduced price as profitable in the aggregate as the larger price, it is clear that the continuance of the taxes, &c., which destroy the rent, is as much a Legislative Act, though a negative one, as if those taxes were now first imposed; therefore that the destruction of their property is perpetuated by a negative act of the Legislature.

But this fall of prices has not been produced by any natural causes; merely as far as at least as England is concerned, there has been no increased quantity of produce raised during the last five years which can account for the fall of prices, or compensate for it.

But there has been another direct cause in operation which has reduced prices. The proportion which (for many years) the quantity of money had borne to the quantity of produce has been altered by an arbitrary law—and the quantity of money which can circulate has also been limited by the same law; so that increased production cannot, with any success, struggle against the effects of low prices, for, the quantity of money being in reality limited by law, any increased quantity of produce only tends still further to alter the proportion of the produce to the money, and thus to lower the price of such portion of produce.

This diminution in the quantity of money has been one great if not the entire cause of the fall of prices—of the consequent annihilation of real rent—and of the ruin of the tenantry.

This diminution has been effected by an Act of the Legislature; the increase may therefore be also effected by the same power.

The quantity of money has been so limited as to

give insufficient prices. It may now be so extended as to give sufficient prices.

The quantity of money is dependent on that law which fixes or alters the standard.

If the Legislature cannot, or will not, take off the taxes and burdens, &c., so as to leave the fair rent to the owners, it clearly can raise the prices so as to produce the fair rent, notwithstanding the taxes, &c.

If Parliament refuse to do either, their refusal, though a negative act, gives as direct an assent to the violation of property as if they now passed an Act professedly to confiscate the income of landowners. But such an Act would not produce half the ruin and injustice which their refusal to act must in this case effect. For though landowners will ultimately be thus robbed, yet before this robbery can be effected, race after race of cultivators will have sunk into inevitable ruin, till at last that wall of cultivators which defends the owners having been destroyed, ruin will break in on them and overwhelm them.

A FRIEND TO JUSTICE.

## AGRICULTURAL DISTRESS.

TO THE MARQUIS OF CHANDOS.

MY LORD,—I have been watching with much interest the proceedings before the committee appointed to inquire into the causes of agricultural distress. Various witnesses have been examined and opinions given upon many subjects connected with this most interesting inquiry; but, strange, although it may seem, the members of the committee altogether abstain from taking evidence regarding the influence which "high rents" have in promoting this distress; and also whether the greater part of the agricultural distress in England does not exist among the "tenants-at-will," who, from their peculiar and dependent situation, are totally precluded from ever benefitting either themselves, the land they cultivate, (I should not say "cultivate," as it is impossible that a "tenant-at-will" either can or will cultivate land as it ought to be,) or their landlords, excepting, of course, those proprietors who prefer a compulsory and unwilling vote at a county election to a well-managed farm, and a fair rent punctually paid by an honest and independent tenant.

"High rents" and "holdings-at-will" will be found to be the bane of agricultural prosperity; while in rents adequate to the times, and in leases which bestow upon the tenant independence from political tyranny, and induce him to embark his capital in the improvement of his farm, with a fair prospect of ultimately remunerating himself, will be found the antidote.

Your lordship takes so great an interest in agricultural distress, and is so anxious that the suffering condition of the tenantry of these kingdoms should be ameliorated, that I would fain hope that your lordship will not (as I fear has been already the case) permit a single witness to pass before the committee until he has been particularly questioned upon the two subjects to which I have taken the liberty of drawing your lordship's attention.

At the same time I would, with your lordship's permission, further beg leave to suggest, that as I suppose this committee has not been appointed solely for the purpose of ascertaining the causes of agricultural distress in England, but generally throughout Great Britain, a few intelligent Scotch farmers ought also to be examined before the committee.

From agricultural distress prevailing in Scotland to a great extent, where none of the speculative begging-of-state methods of administering relief contemplated by your lordship and other disinterested proprietors would avail, if unwittingly essayed by Parliament, perhaps not a few facts bearing upon the question of the "distress in England" would by an examination of Scotch farmers, be brought before the committee, and which would materially promote the success of the object which they have in view—namely, an inquiry into the origin of the present agricultural distress which exists throughout Great Britain.

I have the honour to be, my Lord, your Lordship's most obedient humble servant,

A TILLER OF THE SOIL.

*Long's Hotel, April 15, 1836.*

## RELIEF OF AGRICULTURAL DISTRESS.

The following Speech, made at a recent Meeting of a Scotch Agricultural Meeting, merits especial attention:—

MR. MAITLAND MARGILL proposed to drink "prosperity to the commercial and agricultural improvement of the country." All calm and judicious enquirers were now convinced that relief to agriculture, was to be best and most surely found in a liberal policy of mutual concession between landlord and tenant, leading to the improvement of the economy of agriculture, and in the increasing prosperity of commerce and manufactures. (*Cheers.*) While he was far from denying that a partial relief might be obtained from legislative measures, such as the lessening of the general burdens of the country, and the removal of oppressive local rates and taxes, still in his opinion the main channels of abiding prosperity, could only be looked for in those streams arising from the sources he had indicated. It was perhaps, however, not sufficiently known by the public how much in the way of concession had already been done. A great deal certainly had been done; but yet he was afraid much remained to do. It was unfortunate for the landlord, that with the declension of price in the various articles of agricultural produce, and therefore of his rents, he was placed in many cases in a position of peculiar embarrassment, inasmuch as the burdens upon his estate became relatively greater, so that he found himself fettered and tied down in such a manner as hardly enabled him—nay he would say absolutely precluded him—consistently with his family arrangements, from doing so much as he ought and would otherwise be inclined to do in that respect. Did he require to enlarge, however, upon the advantages to be derived from this mutual concession and co-operation between landlord and tenant, in the improvement of the economy of agriculture, he would only point back to what had been already accomplished—to what within the last few years had been achieved. (*Cheers.*) The magnificent results in this way—results, he was happy to say, which were still in the act of being realized—going to the augmentation of the value of agricultural property, had, however, in his opinion, on the other hand tended to impress upon the minds of a certain class of political economists a fallacious opinion in respect of the actual condition of agriculture. These had been taken to indicate a posi-

tive state of agricultural prosperity. Now he would venture to say, that they had their spring from the very pressure of distress under which agriculture laboured. The landlord had seen that unless he made very great exertions in the improvement of his estates, that absolute ruin awaited him. In this case, as in others, necessity had become the mother of invention. No doubt, it became them thankfully to look up and to praise an all-wise Providence, which had so arranged events that good was brought out of seeming evil in many instances, and so it had been in that case. But although relief in this way had so far been afforded them, still he thought it was rather too much that they should be told that this state of things—this state of increased agricultural exertion—constituted an evidence and a standing proof that agricultural distress was a mere cry got up to serve political purposes, and not based on actual fact. (*Cheers.*) Then as to the last mode of relieving agriculture which he had indicated, viz. the increase of our commercial and manufacturing prosperity, he would ask, who could doubt of its efficiency when they considered that it was mainly the market thus afforded for their produce on which they had to depend? Let them revert to the history of this very winter. Let them consider the great depression in the market at the close of the year, and the advances which it had subsequently made—advances which, although perhaps partially connected with other causes, still he had no doubt were mainly owing to that improved state of commerce and manufactures which enabled the labourers to augment their enjoyments, and to become more extensive agricultural consumers. He was not at the same time blind to the fact that the opportune rise in the market he adverted to was in some degree owing to the failure last year of the turnip crop in England, which forced the farmers of the south, in many instances, to feed their cattle upon grain, and which, through the improvements of steam navigation, had tended to raise that great demand for fat cattle in the Scotch market of which they were now so much reaping the advantage. He trusted he had said sufficient, however, to show, that whatever attempts may be made for the relief of agriculture, the two sources he had pointed out were the only ones from which efficient good or permanent prosperity could arise. It was alone through the mutual co-operation of landlord and tenant in the improvement of the soil, and the advancement generally of the art of husbandry, and the progressive advancement of our commerce and manufactures affording a corresponding demand for an increase of agricultural produce, that not only agriculturists, but all classes of the community, were to be placed in a sound and healthy condition of prosperity. He gave, therefore, "Prosperity to the commercial and agricultural improvements of the country." (*Drunk with thunders of applause.*)

#### OPENING OF ISLINGTON MARKET.

On Monday, two large marquees were erected within the principal entrance, in which a large party of buyers and sellers partook of breakfast with the proprietor. At four o'clock the market was opened by the purchase of three beasts; at which time there were about 450 oxen, 2,500 sheep and lambs, 80 pigs and 5 calves. As the morning advanced parties began to flock to the new Market, and at six o'clock it presented a most animated appearance. In the course of the day thousands of

persons visited it, most of whom appeared to have had no idea of the extent of accommodation provided. In the afternoon, Mr. Perkins, the proprietor, gave a public dinner to celebrate the event. Amongst the gentlemen who sat down to breakfast in one of the spacious marquees prepared for the occasion, were Messrs. Joseph Marriage, Jun, John Marriage, Jun, M. Mason, T. W. Crooks, W. Allaker, W. Sheppard, W. Steele, W. Simmons, J. Green, James Wood, W. Plum, S. Ratcliff, W. Cooper.—Henry Handley, Esq, the member for Lincolnshire, to whom the graziers and public are mainly indebted for the Act, by his exertions during the two last Sessions of Parliament, presided at the dinner, and among the numerous gentlemen present we observed—Sir W. Folkes, Bart, M. P.; J. E. Tennant, Esq, M. P.; F. French, Esq, M. P.; Hon. Capt. Edwardes; G. W. Coates, Esq, of Belfast; John Kene, Esq, ditto; K. Collett, Esq; H. P. Collett, Esq; George Dacre, Esq; P. Laurie, Esq.—Lawrence, Esq; Joseph Marriage, jun, Esq; K. B. Mosse, Esq; and many others, amounting to upwards of 300 persons. The following were among the toasts—Mr. Perkins, and Prosperity to the Islington Cattle Market.—H. P. Collet, Esq, as his solicitor, returned thanks.—Mr. Fitzstephen French, in a very elegant speech proposed the health of the Chairman, remarking how much the cause of humanity, and the interests of the graziers, butchers, and consumers were benefited by his able, indefatigable, and persevering exertions.—The Chairman acknowledged the compliment in a speech of great length, and remarked upon the evidence given by certain individuals before the committees, commenting on the contradictions in the statements of these witnesses, when compared with their memorials to the government some years back, and the difference between their evidence in the Commons and in the Lords, of the last session. He then proposed the health of Sir W. Folkes, and the other members of the Committee, who attended him *de die in diem* for so many weeks in the dog days of last summer.—Sir William returned thanks, assuring the company he should continue his support to the admirable arrangements of the New Market.—The Chairman then proposed the health of the Most Noble the Marquis of Salisbury.—He then proposed the health of Emmerson Tennent, Esq, and the other Members for Ireland, who had so zealously supported him and the measure in the Committee and House of Commons.—Mr. Tennent returned thanks in a most fluent and able speech, assuring the company that his best exertions would at all times be given to the prosperity and union of the two Kingdoms.—The healths of the Graziers who had signed the declarations, were then drank, and Sir W. Folkes returned thanks, stating that though grazing a small extent of land, he would continue at all times to give his best support to this market.—Mr. Handley proposed the health of Mr. Collett, as the solicitor for the Act, and remarked that his exertions and perseverance were very far beyond those usually given by a solicitor, for his whole time and attention were for many months exclusively devoted to the cause, which he had most ably managed, and for which he personally tendered his thanks to Mr. Collett, who acknowledged in a speech of some length, the compliment paid to him.—The Chairman proposed the health of Mr. Dacre with many thanks to him for the efficient and able assistance he had given to him and the cause in both Houses of Parliament throughout this protracted and laborious business.—Mr. Dacre returned thanks, and assured him and the parties that he was much gratified at the success of this praise-

worthy undertaking.—No unpleasantness or confusion occurred throughout the market or the entertainments, and too much praise cannot be given to Mr. Collet for the various requisite arrangements; he was ably assisted by the promoters of the new market, and a most efficient and well-behaved detachment of the police.

### THE GROANS OF THE SMITHFIELD DROVERS ON OPENING THE ISLINGTON MARKET.

No wonder, alas! that our features are wan,  
When our proud occupation will shortly be gone;  
When no more in the city our beasts will display,  
And the drovers from Smithfield be driven away.

I'm sure in our calling the public might see,  
There was never a squad more politer than we;  
Poor hard-working fellows, we always did right,  
And stuck to our duty by day and by night.

But, this Islington Market, of which people chaff,  
Will soon cut us up, and 'tis too bad by half;  
By the stick that we flourish, 'tis really too bad,  
Smithfield West to convert to a wilderness sad.

No more with our brutes to the spot we'll repair,  
Our mug to enjoy at "the Staff and the Bear;"  
Nor to the Old Bailey shall trot on our shank,  
For a plate full of pork, or of buttock and flank.

Now, as to the cattle we drew up to sell,  
Not a soul can deny we treated them well;  
Though, if beasts are unruly, I'm sure there's no sin,  
In sending a whop on the nose or the shin.

And we swear (and to truth we have always regard!)  
They never complained that we hit them too hard;  
And this here old maxim we couldn't dispute,  
That a marcful cove is the same to his brute.

The "cruelty hanimal lads" seem'd to think,  
That brutes should be furnished with summit to drink,  
'Tis true they might move many miles on the road,  
But if ever they ax'd for one drop we'll be blow'd!

But this Mr. Perkins, and who the deuce is he?  
Has been making himself most confoundedly busy;  
And swears that he means snug apartments to keep,  
For bullocks and donkeys, for pigs and for sheep.

And, he also has got the assurance to tell us,  
That we're nothing but vulgar and hard-hearted fellows;  
Now these purse-proud and insolent knaves ought to feel,  
That drovers are lads what can come it genteel.

If we're friends to reform, may we all go to prison!  
Least of all on the list of reform such as his'n;  
Reform which must sadly the butcher annoy,  
And the old *wested* rights of *West* Smithfield destroy.

Oh surely our tears each true heart will excuse,  
As our pens are deserted we *pensively* muse;  
Or sigh to our sticks as we view them with pain—  
"These never shall wollop a bullock again!"

Fortunc's door against us will be speedily shut,  
And our staff of existence (these sticks) will be cut;  
(Those sticks in our mawleys so useful before),  
But the sound of our *herds* won't be heard any more,

To old Smithfield, farewell! to each bullock and calf!  
Farewell to "the Bear and the old Ragged Staff;"  
With grief from those haunts we're destin'd to go,  
Where the *lowing* of cattle henceforth shall be low.

But in spite of this Perkins, this Islington buffer,  
Our friends we are sure won't allow us to suffer;  
And, if Tories get in, 'tis we hear their intention,  
For services past to allow us a pension.

Then, long life to Bob Peel in a bumper of sherry!  
Long life to the Duke and to Lord Londonderry;  
May the Whigs wery soon be turn'd out in despair,  
And Islington Market be blow'd in the air.

### FALLOWING.

The fallowing of land consists of a course of tillage continued for a certain time. When it is continued for an entire season, the process is termed the summer-fallow.

A course of tillage during only a part of the season is adopted in the case of preparing land for such crops as the turnip, the cabbage, the potato, which are thence frequently termed *fallow crops*. This preparation consists of a series of ploughings, harrowings, and other operations, continued until the land is cleaned and otherwise fitted for the crop to be cultivated.

The extension of the culture of fallow-crops has greatly lessened the necessity of the summer-fallow; for the ground receiving a good preparation for this class of crops, and they, from the wide intervals at which they are cultivated, admitting of an efficient tillage during their growth, the farmer is more enabled to dispense with the necessity of devoting an entire year to the tillage of his land.

It is chiefly on the stiffer clays that the summer-fallow may be held to be an essential branch of farm management in this country. These are tilled with greater difficulty than the lighter soils, and do not always admit of the cultivation of those particular classes of plants as the turnip, which are suited to the lighter soils, and which render upon them an entire summer-fallow unnecessary. A further reason exists for the adoption of the summer-fallow on the stiffer clays, namely, that the most valuable of their productions is wheat, for which the summer-fallow affords the best preparation. The manner of performing this process, therefore, merits the serious attention of farmers in this country.

Whatever be the nature of the soil to be fallowed, the first ploughing is in all cases to be given in autumn, or before winter, so that the soil may receive the influence of the winter-frosts, and the growth of weeds be checked; for certain weeds will grow during the months of autumn, and partially in winter and in early spring; but by inverting the surface, and exposing the roots of those plants, and the under part of the sod, to the frost, the vegetation is checked until the process of ploughing can be resumed in the following spring.

In all cases the first ploughing should be as deep as the plough can conveniently be made to go. A good plough with a pair of horses can easily plough from eight to nine inches deep, and this is in most cases an efficient tillage. But should the nature of the soil render it necessary, an additional force of draught must be employed, so that the requisite depth of furrow may be given. Thus, in some of the marly and tenacious soils of England, four horses may be occasionally required to give sufficient depth to the first ploughing of fallow. Three horses may be also used; these, with a good plough, forming an efficient team, which may be managed by one ploughman.

With respect to the manner of laying the ridges, that kind of ploughing must be adopted which is calculated to keep the land dry during the months of winter, this being an essential point of practice in the class of soils for which the summer-fallow is required.

A good method of preserving the land in a dry state is cleaving with open furrows. In this manner each ridge is divided into two, so that good provision is made for allowing the free egress of water.

Sometimes the ridges may be gathered, and at other times, when the land is moderately dry, they may be cast. In whatever manner the ridges are ploughed, they remain in the same state till the following spring, and care therefore must be taken that all the



cross-furrows and channels shall be made and carefully cleaned out, so that no water may stagnate upon the field.

In the ordinary management of the farm, the first operation in spring, as soon as the weather allows, is the sowing of the spring-crops of corn. When this essential labour of the season is completed, which in this country is generally from the middle to the end of April, the tillage of the land intended for such crops as the turnip, the potato, and other fallow-crops is to be resumed. But though these are the first in the order of preparation, and must necessarily be first attended to, yet the summer-fallow should not be neglected at this early season, but should receive one ploughing not later than the month of May, and the earlier in the month the better.

Now this, the second ploughing of the summer-fallow, may be done in two ways. The land may be either cross-ploughed, or ploughed in the direction of the former ridges. On the lighter and drier soils, in the cases where such soils are subjected to the summer-fallow, the cross-ploughing is the better method. But, in the case of the stiffer clays, the ploughing in the direction of the former ridges is to be preferred; for this is a provision against the effects of heavy falls of rain, which, were they to occur at this early season, when the land was ploughed, without open furrows to carry off the water, might so saturate it as to render the subsequent tillage precarious and difficult.

The next ploughing, which is to be as early in June as the other labours of the farm will allow, is to be made across. Immediately after this ploughing, the land is to be harrowed by repeated double turns, the direction of each double turn crossing that of the previous one. These double turns are to be repeated four, five, or more times, as occasion may require; and the roots of all plants which are dragged to the surface by the harrows are to be carefully collected by the hand and laid in heaps. A cart then passing along the rows of heaps, the collected plants are to be forked or thrown into it, and carried off the ground. They are to be formed into a compost by being mixed with quick-lime, so as to destroy their vegetative powers.

Sometimes these weeds are burned on the ground, and their ashes spread upon the surface: but this practice is not to be imitated, the ashes yielding an inconsiderable quantity of manure as compared with that which is produced by forming the weeds into a compost.

It is of great importance at this period of the summer-fallow, to drag to the surface and collect as large a portion as possible of the roots of vivacious weeds in the ground; for, this being the period of active vegetation, every part of these roots which is left in the ground will grow again and extend itself.

It is by the repeated action of the harrows that these roots are detached from the soil and dragged to the surface. When necessary, the roller is also to be employed. This, bruising the clods or indurated masses of earth upon the surface, enables the teeth of the harrow to act upon them. When the roller passes over the ground, the harrows immediately follow.

At this time, too, the grubber may be employed, as subsidiary to the action of the harrow.

This is a period of the summer-fallow at which all obstructions arising from land-fast stones and other impediments to tillage are to be removed; and if drains are required, it is now convenient to form them, the stones collected upon the surface being led forward at once to the drains, and filled into them in the manner to be afterwards explained.

This, indeed, is merely matter of convenience when the stones are in readiness, for the time of Summer-fallow is not really the best for the forming of drains, owing to the hazard of heavy rains occurring, and carrying the soil, which is then loose, into the drains. This, however, is but a contingency, and there is convenience in forming such drains as may be needed at this time: and not only at this time, but during all the subsequent operations of the summer-fallow, draining, the removing of obstructions to tillage, and other works, are carried on. The obstructions of this kind to be removed are, generally speaking, any thing that may impede the path of the plough, and interrupt the common operations of tillage,—such are the roots of trees, stones, inequalities of the surface, and the like.

It has been seen, then, that, in the management of the Summer-fallow, the first ploughing is to be given before Winter, when the land is ploughed lengthwise, in such a manner as that the land shall be kept dry until the tillage can be resumed in the following spring; that the second ploughing is to be given as early as possible in May, and, in the case of stiff soils, lengthwise; and that the third ploughing, which, in the common course of farm-labour, we may hope to accomplish in June, is to be given across, when the principal labour of harrowing, rolling, and disengaging weeds, is performed, and when opportunity is taken to begin to drain, clear the ground of stones, and perform similar operations required.

As soon after the last ploughing and cleaning as the state of the weather and the labours of the farm will allow, the fourth ploughing is to be given. This ploughing may be performed in two ways. It may either be given lengthwise, and the land formed into ridges, or the whole may be ploughed in large divisions, without regarding ridges, as in cross-ploughing.

The former method may be adopted when the season is critical, and the land stiff and naturally wet. This is in order to avoid further hazards from the great falls of rain; for, by forming the land into ridges, it is placed in a state of comparative security. But it allows of a better subsequent tillage of the land to lay it flat, by ploughing it in large divisions, without yet forming it into ridges.

In this case, the land may be ploughed in a direction at right angles to the previous ploughing, that is, in the direction in which the future ridges are to run: but it will be better to plough somewhat diagonally, that is, nearly in the direction from corner to corner of the field. This is done in order that two successive ploughings may not be in one direction, for the next ploughing to be given, as we shall immediately see, must necessarily be lengthwise in the direction of the ridges. But by deviating from this direction with the ploughing now to be given, the two successive ploughings will cross each other, and thus the tilling will be better performed.

No sooner is this diagonal ploughing completed, than the process of harrowing, rolling and cleaning the ground of the roots of vivacious weeds is to be renewed, precisely as after the preceding ploughing. It is not necessary or expedient that the process of harrowing shall be carried further than is absolutely required to disengage the weeds; but to this extent it is important that it be carried, so that the land may now be cleaned.

These two ploughings, with their corresponding harrowings, are of the utmost importance in the management of the summer-fallow. If the weather has been favourable, the land may now be expected to be effectually cleaned, and thus far to be in good order. Sometimes a further ploughing may be re-

quired for the purpose of completing the cleaning process, but whether this be so or not, the land ought now to be formed into ridges. This is necessary, in order to provide against the contingency of heavy rains, which, were they to occur at this period, when the land is lying in a flat state, might so soak it as greatly to retard the future labours.

We now, therefore, proceed to strike the furrows in the manner formerly explained. The land is then ploughed and formed into ridges, and this completes the fifth ploughing which it has received. The land will generally be now ready to have the dung laid upon it. But in some cases it may require a sixth ploughing before it is sufficiently cleaned and prepared for the dung. In this case, the land being harrowed, and the remaining weeds collected as formerly, it is ploughed again in the line of the ridges.

We may proceed, however, upon the supposition that this further ploughing and cleaning are not required, and that the land, after the fifth ploughing, is ready for the application of the dung. This may bring us, in the ordinary course of farm-labour, to the month of August.

Now the dung, according to the practice before described, has been previously led out and laid in large heaps in the field, where it has undergone a certain degree of fermentation. Should this not have taken place sufficiently, the heaps must be turned, so that the dung may be brought to a fit state for use.

The dung is now conveyed to the land in carts from the heaps, the carts being driven along the ridges. It is dragged out from behind by the workmen with the dung-drag into heaps, as nearly as possible of equal size, and at equal distances, in rows along each ridge. Sometimes, to ensure accuracy, the ridges are divided, by furrows run across them, into rectangular spaces, each space receiving its allotted quantity of dung. But in general the eye and practical knowledge of the workmen will enable him to drag out and deposit the heaps in the quantity, and with the accuracy that may be required.

Several persons, who may be females or young lads, then spread out the dung all across the ridge, by means of light three-pronged forks. This operation should be done with much attention, so that the dung may be spread regularly over the ridge.

Close upon the work of the spreaders, the ploughs are to follow and cover the dung. This is done by gathering the ridge, so that, while the ploughing covers the dung, the curvature of the ridge is increased.

The dung being covered in this manner, and the ridge raised, the land is to remain untouched for a few weeks, so that the dung may be decomposed and incorporated with the soil. When the dung has been previously fermented in a proper manner, this incorporation will be completed in a very short time.

The land is now ready to receive what is called the seed-furrow, which is the ploughing given to it previous to the seeds being sown. In this ploughing the ridge is again gathered, but the ploughing being very shallow it has little effect in raising the ridge higher.

After this final ploughing, and upon the surface now exposed, the seeds, usually of wheat, are to be sown, in the manner to be afterwards described. This generally takes place about the middle of September or later, and completes the important operations of the Summer-fallow and sowing of the wheat-seeds.

In this detail the manner of applying the dung has been described, but there is likewise to be considered the manner of applying lime, when this substance is to be laid upon the land in Summer-fallow.

There are two periods at which the lime may be applied,—either before the dung is laid on, or afterwards. In the former case, the lime may be laid on just after the land has been formed into ridges, and when it is ready to receive the dung.

The quicklime, as it is brought from the kilns, may be laid down in heaps of about five carts each, at regular distances, upon the head-lands or where convenient. In this case, it is brought to the farm as opportunity offers, and slacked slowly and regularly.

When we are prepared to spread it upon the ground, a person with a broad-pointed shovel is appointed to each heap. He fills his cart, drives it along the ridge, and spreads the lime abroad upon the surface, taking it out with his broad-pointed shovel from the cart behind; sometimes two carts and two men may be appointed for each heap, the one man filling the cart at the heap and the other spreading the lime upon the ridge.

Both men and horses sometimes experience injury from the caustic effects of the lime, especially when the weather is moist. The face of the man may be defended by a thin handkerchief, and the back of the horse should be covered.

When the lime is spread, the land must be immediately harrowed, to incorporate the lime with the soil. This being done, the dung is to be spread upon the ground, and covered by the plough in the manner before described.

But frequently the dung is first spread, and the lime is not laid on until just before giving the seed-furrow. This answers very well, provided the land has lain a sufficient time after the dung has been spread, so that it may be decomposed and mixed with the soil.

These details have an especial reference to the stiffer soils, which are those on which the Summer-fallow is generally practised. When the lighter soils are to be fallowed, the process of cleaning is more easy, and there is less hazard of serious interruption from the state of the weather. The only variation with regard to the lighter soils that need be referred to, is in the first spring-ploughing. In the case of such soils this ploughing may be given at once across, and the process of harrowing and cleaning then commenced. This is precisely the management pursued in the case of turnips and similar fallow-crops; so that, when the learner comprehends the operations of the summer-fallow thus far, he is acquainted with the manner of preparing the land for an extensive and important class of plants.

In the preceding detail the ordinary operations of the summer-fallow have been described, but the nature of the seasons, the state of the land, the prevailing weeds to be eradicated, and other circumstances, produce variations in the course of management, which, however, it is not necessary here to point out. They are little subject to rule, but are best determined by the judgment of the farmer, as the cases themselves arise. A more important purpose is served to the student of agriculture by pointing out to him the manner of managing the summer-fallow upon approved principles. Knowing this, a little experience will soon show him how to adopt those variations of practice which the state of the season and other circumstances may render expedient.

The process of the summer-fallow, conducted as it should be, enables us to effect the tillage of clay-lands in a manner calculated to eradicate weeds, and fit the land for bearing a lengthened rotation of crops.

After a complete summer-fallow, the land is seen to be in the best order which circumstances will allow. It acquires that mellowness, indicative of fer-

tility, so familiar to the eye of the farmer, yet so difficult to be described. It is frequently observed by farmers, that clay-lands in this climate get into an adhesive, and, as it is termed, a sour state, by the long repetition of crops. The giving them from time to time the mellowing influence of a summer-fallow, during which weeds may be extirpated and the manures applied in the most beneficial manner, is found to have the best effects in restoring the fertility of the soil and fitting it to yield an increased produce in succeeding years. One advantage, too, of the summer-fallow, not to be disregarded, is, that it divides the labour of tilling a farm more regularly throughout the season.—*Low's Agriculture.*

## CUSTOMS BETWEEN LANDLORD & TENANT, AND THE INCOMING AND OUTGOING TENANT.

(FROM KENNEDY AND GRAINGER'S CUSTOMS OF COUNTIES.)

### BERKSHIRE.

There is in general, no restriction upon a tenant as to the cultivation of the land or the mode of cropping it, previous to the last year, or in some places the last two years of his lease. Up to that time, he farms and crops the land as he pleases; but he covenants in his lease to leave, the last year, a stated number of acres for fallow, which are usually out-stubble. Where the restriction extends to the last two years, the tenant is bound, the last year but one, to fallow the land from which, the year preceding, he took a crop of oats; that from which he takes a crop of oats the last year but one, he leaves the last year as fallow land. The restriction upon a tenant to leave a certain number of acres for fallow at the expiration of his term, does not bind him to leave them in particular parts of the farm, only that so many acres are to be left; and it sometimes happens, that all the worst of the land is left for an incomer, which is a serious consideration, the land on the hills being generally very indifferent.

A similar custom prevails with regard to hay and straw; a tenant having the privilege of selling hay and generally wheat straw, (although, in some places, he is only allowed to exchange it for dung,) during the term of his lease, until the last crop. The wheat straw of the last crop he is bound to leave upon the premises for his successor, either for the purpose of thatching, or for any other use to which he may choose to apply it. He is also obliged to feed the hay crop, or as much of it as he can use during the time, and cannot remove any from the farm; the oat and barley straw he likewise covenants to feed on the premises during the whole of the term.

The outgoer has no demand upon the incomer for any crop or labour, excepting for the clover or other grass seeds upon the ground, for which he receives the value of seed and labour; and although the incomer has the privilege of entering upon the fallow land at Lady Day, yet the outgoer pays all the rent up to the time of his quitting. The incomer, having the above-mentioned privilege, has sufficient time to plough all the land for his turnip, or wheat fallows, which land, his predecessor cannot touch after the last Michaelmas but one of the term of his lease, without being hired or authorized so to do by the incomer. If the outgoer does not feed all the hay

crop, the remainder is valued to his successor; but merely at a feeding-out price. This is the only article, with the exception of the grass seeds, which an incoming tenant is bound by the custom of the county to take. But from the want of any restriction, previous to the last one or two years of a lease, a tenant entering upon a farm in this county is generally at the expense of much labour for several years, without receiving any adequate return.

MODE OF FARMING, IMPLEMENTS, &c.—Through the system acted upon in Berkshire, the soil generally speaking, is very much out of condition. A tenant, up to the last one or two years of his lease, drives the land as hard as he possibly can, and, in fact, leaves it entirely run out: thus, the labour of several years is required to put it into any thing like a good condition; whilst by the time A. has brought his land tolerably round, his neighbour B. perhaps intends to relinquish his farm; and thus is kept up the neglected appearance of the country. Where a farmer cultivates his own property, it is, in consequence of this system, generally seen to the greatest advantage, like a fat sheep amongst a lean flock; and in the neighbourhood of Reading some well-cultivated land may be seen, which is chiefly managed by the proprietors themselves.

A great quantity of oats is grown in this county; they are most commonly the last crop taken before the land is fallowed: the rotation on the turnip land is—first, turnips; second, barley or oats; third, seeds; fourth, wheat; fifth, oats: upon the heavy land—first, fallow; second, wheat; third, beans; fourth, wheat or oats—if, fourth, wheat, then, fifth, oats. The land is, generally speaking, tried to the utmost.

Great quantities of chalk are laid out upon the land as manure for turnips, and for all kinds of grain; it is the chief article used in this way, with the exception of the produce of the farm-yard: there is, however, a practice frequently adopted in Berkshire, for the purpose of manuring the land for a turnip crop, which consists in ploughing the stubbles after harvest, and sowing them with turnips, which are fed off the last of all; and thus a fallow is made of the land for a seasonable crop, which is manured by the feeding off the stubble turnips; rye is likewise used for the same purpose, being sown as forward as it can be in the autumn, and fed off during the month of April.

The plough most commonly used in Berks very much resembles that employed in Norfolk, but it is generally drawn by four horses, driven double, a boy usually leading the two near horses, by means of a cord.

The drill is very little used, excepting for peas and beans, where the land will allow of it; on the heavy soils beans are chiefly planted by the dibble; the wheat, and other kinds of grain, are sown by the hand. The land-press, which on the light soils is frequently wanted, has not been long introduced into use, but it meets with general approbation.

Very little draining is performed in any part of this county, not, certainly, because there is no need of it, but on account of the expense; in most places, however, whatever draining the tenant wishes to have done, the landlord is willing to supply the material.

The outbuildings are chiefly thatched, and sided with weather-boarding; they, as also the gates, and other dead fences, are always put into a good state of repair at the commencement of a lease, after which they are covenanted to be kept so by the tenant, the landlord, however, finding the materials, but which are converted to the purpose for which they are wanted, at the expense of the tenant.

## RETROSPECT OF THE WOOLLEN TRADE.

Our markets continue in the same state of activity which has prevailed with little fluctuation since the beginning of the year. Thus far there are no appearances of interruption; on the contrary, goods yet find purchasers as fast as the manufacturers produce them, and in some particular cases orders of the most legitimate character cannot be executed within the time required, not because that time is too short under ordinary circumstances, but simply because hands are not forthcoming to do the work.

Such a state of things ought naturally to be regarded with much satisfaction. If that satisfaction as to present effects be dashed with a shade of anxiety for future consequences, it is because men have learnt by experience to scrutinize attendant circumstances, to distrust the permanency of any thing approaching to an extreme, and to dread the chance of a re-action. Such caution is not unreasonable. The two periods of 1825-6 and 1833-4 furnish important lessons which may be read with advantage as often as appearances seem to indicate a departure from steady principles; or even if they serve only to moderate the ardour of expectation under auspices of less doubtful character. The present moment offers points of comparison with both these periods. Joint-stock speculations are again rife, although less so than in the first of these years; and the prices of commodities have again reached an elevation only inferior to that of the latter period. But there is one material point of difference also. To whatever extent of speculative excitement the present high prices may be owing, the manufacturers have resolutely kept themselves free from all such influence, and have cautiously limited their purchases of wool so as just to meet the effective demand for goods from week to week. The consequence is, that come what may, they are prepared for a change at any moment, or however sudden; they have no heavy stocks of dear goods to run off as they had in 1834; at the close of each market the stands in our Cloth-Halls are pretty well cleared, and are ready to receive fresh supplies for the next. In this way the manufacturers are sure to protect themselves from the ruinous losses they have experienced on former occasions; and if the buyers of goods have been equally careful in their operations, it is quite clear that trade must be in a state so sound that even a sudden check in the demand might occur without doing serious mischief; because, from first to last, every one would be prepared for a reduction in prices which must necessarily ensue. But this is precisely the point of uncertainty which leaves room for hesitation: the foundation of this active demand for goods is matter for conjecture rather than demonstration; and at no period, perhaps, has it been regarded with greater anxiety than it creates at this moment.

The supply of our home consumption is at all times a most important item in our trade, and from the favourable circumstances of our population generally, it is fair to expect that much augmentation of demand may have arisen from that source. It is, moreover, a source of demand much less exposed to risk and uncertainty than that of distant markets, because the producer and the consumer are almost in immediate contact; and hence the extent of the supply is more promptly adjusted to the variations of real effective demand.

As to foreign demand, one thing has become quite certain: the markets of Europe afford no encouragement to the continuance of high prices. Our old customers in Germany, in Holland, in Belgium, and in Portugal, are all alike indisposed to pay the prices now demanded from them. The season of operations is returned, but orders are given to a very limited extent, and with great reluctance, or are withheld altogether. The goods required for these markets are chiefly made of English wool, which maintains a price out of all proportion with that of foreign wool. Such disproportion is, of course, highly in favour of the native manufacturers in those countries which possess any; and it happens that those countries where there are no manufactures worth naming are so glutted with accumulated stocks of English goods that they care not for further supplies at almost any price.

Of the more distant markets, that of the United States alone is of importance sufficient to influence the state of prices here at almost any time; at a wavering moment, more especially the difference between a brisk and a languid demand for that country may decide the question of advance or decline in our markets. Supplies have gone out freely for some time past, and certain descriptions of low goods are yet much in request; but, generally speaking, the American merchants and exporters regard the advance which has taken place latterly with an eye of suspicion, and are disposed to proceed very cautiously in their further operations. It is only to be lamented that so much of the trade to the United States has fallen into the Consignment System that outward appearances are no longer a safe indication of the real state of things there. The markets of South America, again, are supplied altogether under that system: and such, also, in a great measure, is the case with those of India and China. Much has been done, and much is yet doing, for those parts of the world; but what may be the result remains to be seen. The China market has been but recently opened, and has given a great impulse to manufacturing enterprise during the last two years. The result may prove satisfactory, and no doubt will prove so to a certain extent; but experience teaches that the uniform tendency of enterprise so directed is towards excess of supply, until the new market becomes overloaded with goods, and finds relief only by means of sacrifices which impose a check upon such excess, and thus a due relation between supply and demand becomes established. The first private trade shipments of woollens sent out on the opening of the India Trade, upwards of twenty years ago, left a handsome profit; but three years afterwards the very same goods fell to half the price, without any corresponding alteration in this market, and left a loss equal to the former gain. Time alone can show to what extent the China Trade may be prosecuted with advantage, and how nearly the present speculations have hit the mark.

Remote markets are the field whereon the glories of the Consignment-Agency principle have ample scope for development: imagination may exhaust itself in the invention of flattering representations to catch the unwary; at such a distance the speculative adventurer has small chance of learning their real value except at the price of bitter experience; and the length of time which must elapse before the actual result of a first adventure must come to light is such that by a judicious improvement of the opportunity a regular

succession of shipments, and a rich harvest of Commissions upon them, may be secured before the credulous victim gets his eyes opened to the delusion practised upon him. The two parties to this operation are the merchant or manufacturer who supplies the goods, and the consignment-agent who sells them. The former has means to find, skill to exercise, and all risks to run, for the mere chance of a profit; the latter contributes nothing to the undertaking save the mere *brass* of assurance, his skill consists in the practice of deception; risk he has none whatever, and his profit is certain. The former may chance to get his own again; by great good luck even realize a profit; or he may lose half the value of his property, and find himself ruined; but no such contingency awaits the latter: as much as 7½ per cent. in the shape of Commission, and perhaps half as much more in the shape of simulated extra charges in account-sales, may be the consignment-agent's portion in certain cases; and with this in his pocket he rides his high horse in search of new game.

Such is the consignment system; and any portion of the late and present activity in our markets which may be owing to an extension of that system, may well be regarded with suspicion. Our Exports of woollens rose from £5,975,415 in 1834, to £7,046,829 in 1835, but whatever may be the prospects in other quarters of the world, we certainly must not look to European markets for a proportionate demand this year. It has been suggested that much of the existing spirit of speculative enterprise has been encouraged by the extended facilities which the liberality of the new banking establishments affords. The same facilities which induce speculation in public works will undoubtedly affect commercial operations also; and in the absence of opportunity for their employment in the ordinary channels, we may expect to find them seeking others of a nature altogether experimental, or of a character perhaps not over safe. Prices will be affected, as well by the augmentation of demand which must arise out of this state of things, as by the ability of holders to keep out of the market in the hope of obtaining still better terms. The advance will be greatest upon those articles of native produce which are consumed chiefly in the manufactures of this country; and this, precisely, is the situation of English wool. The growers have little to fear from the competition of foreign wool, because the character of the article is essentially different; and still less are they dependent on foreign demand for a market, because the consumption at home is equal to the entire produce. Nothing can affect this consumption save an advance of price so out of proportion as to diminish the demand for goods made of English wool, and thus cause other fabrics, more reasonable in price, to be substituted for them. In the markets of the world no merely artificial advance of price can be permanently maintained, whether it be the effect of banking facilities, or legislative protection. A length of time may be required to elapse before the consequences become fully developed, but they are certain in the end, and in the nearer markets they are already visibly enough. Since the early part of 1833, the advance upon English wools has fluctuated between 50 and 100 per cent, and may now be stated at from 60 to 70 per cent; they have rarely remained stationary for three months together, and for the last twelve months the advance has been constantly progressive.

During all that period the produce has been abundant; not only fully adequate to the demand for consumption, but also to compensate for the effect of a previous rot amongst sheep. Mr. John Houghton, in his recent evidence before the Agricultural Committee of the House of Commons, considers the first advance in wool, five years ago, was in consequence of the rot. "I was a holder myself seven years," he says, "and at last sold for 20s a tod in 1830." This would be the time just preceding the rot. The "prosperity of the manufactures," to which he ascribes an extension of demand and the continuance of good prices, he considers "to have commenced only two years ago;" and he adds "when I say that the rise in the price of wool might be occasioned by the great rot in sheep, I think unless the manufactures had been prosperous, we could not have maintained the price as it is now; for I think the rot has been sufficiently got over, and we have got back to the same state as the year before;" that state, namely, in which Mr. Houghton held a seven years clip, and sold it for 20s a tod, or about 8½ per lb. The present price of the same wool would be not far short of 1s 8d½ per lb.

It is admitted that the high price of wool has been the salvation of the English farmer all this time; hardly any other article of his produce would fetch a living profit, and for his chief article, grain, he cannot even barely remunerate himself. The same state of things prevails on the continent. The *Allgemeine Zeitung* in a recent article on the subject of the German farming interest, says—

"The farmers have hoped in vain for an improvement in the prices of grain: all combinations have thus far proved illusory. The continental corn-growers cast a longing eye towards England, to whom they certainly wish every possible good, but another deficient harvest amongst the rest, in order that she may be forced to buy grain from them."

Amiable creatures! How infinitely obliged we are to you for your readiness to supply us with your grain, and to dispense with our manufactures in return. Your good wishes beat those of the Archbishop of Granada hollow: he, too, had a stiff-necked subject to deal with, who refused to admit the merit of his homilies. "Va, Gil Blas," was his valedictory address to the hardy critic; "je te souhaite toute sorte de bonheur, et un peu plus de goût."

The writer of the article then reviews other descriptions of farming produce, and grazing stock, which yield a better return than grain, and he continues thus:—

"Of animal productions wool yet remains the most profitable: the demand for it is so lively, and increases so much, that it far exceeds the supply; and prices have, consequently, already sustained a considerable advance. According to all appearances this will extend yet further. True, it is stated in our public papers that this lively demand applies chiefly to the middle sorts, and this is easily accounted for: because the middle sorts are always most wanted, and are, at the same time, always produced in much larger quantities than the fine sorts; hence the less important demand for the latter furnishes no ground for complaint, and prices are as much advanced for one as for the other. But we must guard against an error which may easily be committed in reference to such statements: it is usual to reckon the advance on both sorts by per centage, whence a much greater positive advance must be taken upon the finer than

upon the middle sorts, in order to bring them to the same rate in the scale. For instance, if we take last year's prices at 130 dollars for the finer, and 80 dollars for the middle sorts, an advance of 10 per cent. would make 13 dollars upon the former, and only eight dollars upon the latter; but the grower will be fully content if he gets only just as much more for his fine as for his middle sorts, because the advance in both cases is to be regarded as so much clear profit. If we consider that the production of improved wools is much easier now than it was formerly, whilst the prices have yet always maintained the same elevation, it is quite clear that sheep-breeding must pay much better now than it did before. Sheep of the improved breed are now to be bought much lower in price; the treatment of them is much better understood, consequently there are fewer losses; and experience has shown the value of attention to full-woolled animals, whence a greater quantity of wool is produced from the same number of sheep.

"So long as we remain at peace, so long will this favourable state of things continue; and even the event of a war might make it more so; but the advantage would be temporary only, and the subsequent shock would be felt the more sensibly. For a series of years, therefore, the breeders of sheep enjoy a fair prospect of realizing highly remunerative prices for their wool. It is true that the improved breed is constantly extending to countries where its cultivation is yet susceptible of immeasurable increase; but intelligence is an important element in this branch of farming industry, and this cannot be bought along with the improved sheep. Poland may be adduced as an example on this point: for more than a quarter of a century large numbers of the improved animals have been introduced into that country; yet compare Poland with Silesia, and it will be found that we are correct. On the other hand, Hungary and Transylvania will soon be in a condition to assume an important weight in the scale of European commerce with the world; and Germany will require the exercise of all her industry, and all her intelligence, to maintain her stand as the first in the market. Meanwhile the awakened spirit of emulation in these two countries yields the German breeder that profit which arises from the good sale of his supernumerary brood-flock."

These are encouraging prospects for the continuance of an effective supply of foreign wool fully adequate to any amount of demand likely to arise, and the whole history of the trade for years past demonstrates the facility with which the produce can be extended as circumstances require. With the single exception of the excitement which prevailed through the winter of 1833-4, the prices of Foreign wool have experienced no undue fluctuation; but as often and as regularly as an extra demand has arisen, extra supplies have been forthcoming to meet it, and extravagant prices have been avoided. Fine cloths are almost as cheap now as they ever were.

The manner in which the produce of Foreign wool has been augmented will be seen from the following statement of the quantities consumed in this country for the last seven years; and we annex, also, the exports of woollen manufactures for the same period:—

	Foreign Wool entered for consumption.	British Woollen manufactures exported.
1829 .....	lbs 22,614,550 ..	£4,587,603
1830 .....	31,522,859 ..	4,728,666
1831 .....	29,669,908 ..	5,232,013

	Foreign Wool entered for consumption.	British Woollen manufactures exported.
1832 .....	27,587,475 ..	5,244,479
1833 ..	39,066,620 ..	6,292,432
1834 .....	40,840,271 ..	5,975,415
1835 .....	43,185,993 ..	7,046,829

It thus appears that the consumption of Foreign wool has nearly doubled within seven years, and the exports of woollen manufactures are increased by about half.

There is every probability that the imports of Foreign wool this year will prove abundant: the quantities entered at London, Bristol, and Hull, as made up on Tuesday last, and compared with the corresponding quantities to the same period last year, stand thus:—

	DUTY PAID.			
	Foreign Wool imported.	In 1836 to last week.	1835 to the same period.	Excess in 1836.
To  Bristol .....	lbs 71,120 ..	66,608 ..	4,512	
.. London, Spanish ..	897,871 ..	293,116 ..	604,755	
.....Australasian ..	350,161 ..	201,900 ..	148,261	
.....Other sorts ..	5,675,207 ..	2,791,840 ..	2,883,367	
.. Hull .....	4,111,295 ..	1,638,714 ..	2,476,491	
Total .....	lbs 11,109,564	4,992,178	6,117,386	

Here we have an import, thus far, of more than twice as much this year as last; and yet we are within six weeks of the new clip. At this late period it is fair to presume that the old stocks on the Continent have been pretty far sought into, in order to furnish for such an excess in quantity; and we need not, therefore, feel surprised that amidst such plenty the wool dealers and consumers should still complain of want of choice in quantity. At the same time it is equally fair to presume that the prices current in England must have been found by comparison a great temptation to induce supplies of such a nature and to such an extent.

It would be unjust to close an article on the wool trade without allusion to the progress of Microscopic discovery; although we can do little more than condole with our readers on the disappointment of their promised lectures. Whether the discovery be considered not yet sufficiently ripe for promulgation, or the public be considered yet too unenlightened for its reception, we cannot decide; though we have a strong leaning towards the latter assumption. At all events it is some consolation to find that certain progress has really been effected in the former; and the public must be content for the present to know that all the properties which have hitherto been ascribed to wool exclusively, are found to apply equally to Hair of any kind. "All flesh is grass," saith the preacher; all hair is wool, saith the philosopher. Well may he call the discovery an important one to dyers; it is important indeed; for as we have many varieties of natural colour and shade in hair, it may come to pass that a great portion of our cloths and stuffs will require no dyeing at all. Here is another field for enterprise!

A strict regard for justice, however, compels us to add that we have some serious doubts as to the originality of the discovery. We have a somewhat lively impression that our old acquaintance, Aaron Bang, once presented himself at dinner in a new coat of glossy black cloth, which he declared was from the first clip of emancipated negro-wool. Nay, we have an indistinct remembrance, even, that he said it had been manufactured somewhere in this neighbourhood. We begin to suspect that friend Bang may have had communication with a Genius still more hair-brained than even Tom Cringle.—Leeds.

## AGRICULTURAL REPORTS.

### GENERAL AGRICULTURAL REPORT FOR APRIL.

During the last six days of March, the nights were cold and frosty, even to the production of thickish ice; but April, its place in the Calendar considered, has been, so far, the most sloppy, and otherwise the most ungenial month of the present year; it having, by its frequent frosts, that pervaded nearly the whole of the first fortnight, the peltings of the storms, &c., in some measure destroyed or greatly tarnished vegetation. However, since the 18th the temperature—notwithstanding the wind has been frequently vibrating between the north-west and north-east—has been sufficiently mild, to have considerably renovated vegetation, and it may now be considered, both from our own observations, as well as the correspondence and verbal intelligence we have received, from most of the farmers and other country gentlemen with whom we have communicated, as quite forward enough, to be productive of abundant crops, of every description of Summer and Autumnal farm produce; both of which have often experienced a detrimental check, from the bleak atmospheric visitations of an early May. Field labours are not materially out of their place, and are by far more forward than has been represented by some of those who are interested in advanced prices, either as holders, speculators, or growers of heavy stocks of British corn, under the purlblind impression that the heavy duties on foreign grain—which are now in the 8th year of their pupillage—would have enhanced prices, which they have scarcely accomplished to the amount of the smallest money fraction per qr.

A very great breadth of early sown barley is described as being well above ground; and wheat, oats early sown, or dibled beans and peas, plants as well as meadow and seed mowing grasses, pasture herbage, &c. being in a fresh, healthy, and somewhat thriving state; inasmuch as an abundant, though a somewhat backward hay season appears to be anticipated, both by those who supply the metropolitan hay markets, and farm at remote parts from them. Also the ewe flocks and their lambs, the most backward of which are now become sufficiently strong—though some of them have suffered from the effects of the cold rains of the first half of the month—to encounter almost any weather, are described, with other live farm stock, as generally healthy and doing well; but the deficiency of turnips, and the inferior quality of the greater part of last year's growth of hay, and consequent unripeness of the sheep and beasts, reserved for Spring and the early part of the Summer, is still loudly complained of, both by butchers and graziers; the former declaring that they die so badly—i. e. yield so little internal fat—consequently weigh so light, that they lose money by all they slaughter; the latter, that they have paid them nothing, for attempting to fatten them.

As relates to the legislative part of their solicitude, both landowners and farmers, or, at least, the discerning part of them, seem to be at length thoroughly convinced that our legislature can afford them no further relief than a wholesome

commutation, or an entire abolition of tithes. They appear to consider both the parliamentary and central agricultural committees as having been wholly useless; whilst many of the latter seem to hope that the former will, speedily, after the tithe question has been legislated, reduce the size of their large farms, they considering 1,000 acres of good land, divided into three farms, would produce nearly, or quite, 50 per cent more rent, than if let in one farm.

As relates to the prices of farm produce, those of fat stock and wheat have been, in the course of the month, considerably, of hops, wool, poultry, and dairy produce, somewhat, but not greatly, on the advance: whilst those of barley, oats, beans, peas, malt, seeds, flour, milch cows, store pigs, suckling calves, and good horses, about stationary: but both the prices of wheat and fat stock have been, during the last fortnight, somewhat drooping.

The following is a retrospective statement of the supplies and prices of the stock exhibited, and, for the most part, sold, in Smithfield Cattle market, from the 25th of March to the 25th of April, both days inclusive; as also a comparative statement of supplies and prices of the stock exhibited and sold in it on Monday, April 27th, 1835, and April 25th, 1836.

		SUPPLIES.				
		Beasts.	Sheep.	Lambs.	Calves.	Pigs.
March	25.	440	1900	300	150	230
—	28.	2580	11420	400	185	320
April	1.	400	1250	700	150	240
—	4.	2365	13030	600	185	280
—	8.	650	1700	500	200	350
—	11.	2425	12400	700	240	420
—	15.	580	5000	300	200	325
—	18.	2430	12500	2000	250	365
—	22.	650	2400	800	250	360
—	25.	2550	14750	2050	220	400
Total	..	15070	79350	1350	2030	3310
Supply of preceding month.	} 2040	75170	2850	1805	3177	

It will be seen, by the foregoing statement, that the supply of the present month embraced 3,030 beasts, 4,180 sheep, 5,500 lambs, 225 calves, and 133 pigs more than that of last month.

#### PRICES.

At per 8lbs sinking the Offals.

	March 25.				April 25.			
	s.	d.	s.	d.	s.	d.	s.	d.
Inferior Beef	2	6	2	3	2	6	2	3
Middling, do.	3	0	3	6	3	0	3	6
Prime, do.	4	2	4	6	4	2	4	6
Inferior Mutton	3	4	3	8	3	2	3	4
Middling, do.	4	4	4	10	4	0	4	4
Prime, ditto.	5	4	5	10	5	0	5	6
Lamb	6	0	6	6	5	10	6	6
Veal	4	4	5	4	4	6	5	8
Pork	3	6	4	3	3	6	4	8

The prices of Mutton, as will be perceived by the above table, have fallen, in the course of the month, from 2d to 4d; of Lamb 2d; whilst those

of veal advanced 2d per 8lbs; and those of beef and pork have remained stationary.

	April 27, 1835.		April 25, 1836.	
	s. d.	s. d.	s. d.	s. d.
Coarse and inferior beasts	2	0 to 2	2..2	6 to 2 8
Second quality do.	2	6 to 2 10	..3	0 to 3 6
Prime large oxen	3	4 to 3 6	..3	8 to 4 0
Prime Scots, &c.	3	8 to 4 0	..4	2 to 4 6
Coarse and inferior sheep	2	4 to 2 6	..3	2 to 3 6
Second quality do.	2	10 to 3 2	..4	0 to 4 4
Prime coarse-woolled sheep	3	10 to 4 0	..4	8 to 4 10
Prime South Downs do	4	2 to 4 6	..5	0 to 5 4
Lambs	5	0 to 6 0	..5	10 to 6 6
Large coarse calves	3	4 to 4 2	..4	6 to 5 0
Prime small do.	4	4 to 4 8	..5	2 to 5 6
Large hogs	3	0 to 3 6	..3	6 to 4 2
Neat small porkers.	3	8 to 4 0	..4	4 to 4 8
Sackling calves (each)	12	0 to 39 0	..12	0 to 30 0
Quarter old store pigs (each)	8	0 to 12 0	..10	0 to 14 0

SUPPLIES.

Beasts	2,602	2,550
Sheep and lambs	20,770	16,050
Calves	130	220
Pigs	440	400

By the foregoing account, it appears, that beef was from 4d to 8d; mutton, 10d to 1s 2d; lamb, 6d to 10d; veal, 10d; and pork 6d to 8d per 8lbs dearer, on the 25th of April, 1836, than at the corresponding period of last year, viz. April 27, 1835, whilst there were 52 beasts, 4,720 sheep and lambs, and 40 pigs less: 90 calves more on the former than the latter market day.

From the 25th of March to the 25th of April, about 950 of the beasts came up the St. Alban's road; about 1,120 the other northern roads; about 6,250 from Norfolk; 950 from Suffolk, Essex, and Cambridgeshire; 930 from the western and midland districts; about 1,750 by steam vessels from Scotland; about 400 from Sussex, Surrey, and Kent; and most of the remainder, including about 150 townsend cows, from the stall-feeders, cow-keepers, &c, in the neighbourhood of London.

More than a moiety of the above beasts have been, this month, chiefly Scots, from various quarters; accompanied by about equal numbers of Herefords, and Welch runts; with about 340 Sussex, and a few Irish beasts.

The Mutton season of our northern districts, having commenced, nearly, or quite, half of the sheep—most of the coarse-woolled breeds being out of their wool—have come from our northern districts, viz. Lincolnshire, Leicestershire, Northamptonshire, &c; from Norfolk, Suffolk, Essex, Cambridgeshire, Kent, Sussex, Surrey, and our western districts; a full moiety of those from the north, consisting of chiefly new Leicesters, of the South-down and white-faced crosses; about a fourth South-downs; some, but not a great number, of old Leicesters and Lincolns; and the remainder, mostly of Kents and Kentish half-breds, polled—with a few horned—Norfolks, horned Dorsets and Somersets, horned and polled Scotch and Welsh sheep, fattened in England, with about 1000 white and black-faced sheep, from Scotland.

A great proportion of the month's supply of lambs—nearly half of which have been South-downs, the rest, not far from equal numbers of Dorsets and Somersets—have come from Surrey, West Sussex, the Isle of Wight, and various other quarters.

There has been, in the course of this month, as well as the last, a considerable quantity of slaughtered meat, particularly mutton, from Scotland, and the north of England.

LINCOLNSHIRE.

The weather almost the whole of the last month was *stormy and wet*, leaving but few days at intervals to proceed with corn sowing, and the seed time has thus been protracted to an unusually late period. The East Fen is the only district, from its extremely dry soil, which got sown in the proper season. The Wolds are on the eve of completing their seed time, according to the ancient adage—"On the day of St. Mark (25th of April) throw the Hopper into the Ark!" The Middle Marsh and other clay soils will not have finished for more than three weeks, and in some instances beans are even yet to be sown. The young wheats upon clover leys and oat stubbles appear weak, thin, and backward, and upon some parts of the East Fen and other light soils, the wire worm has commenced its customary depredations, while that upon the heavier lands after a Summer fallow, which was earlier sown, look strong and healthy. The oats and barley which have appeared above the surface, look pale and sickly, and are much in need of warm dry weather. The young seeds are well planted, and likely to produce abundance, either for sheep keeping or the scythe, a greater breadth of which has been sown than in former years. The lambing season, now nearly ended, has been attended with very varied success: some flocks having produced a greater fall of lambs than usual, whilst in many others the increase has been less than average years. The cold wet weather has been very injurious to the ewes, in reducing their condition more than at any former period, and many lambs have died from starvation and want of nourishment. The cattle and sheep markets have been scantily supplied, and fodder being plentiful, prices are good and the sales brisk. The wool trade has continued to improve, until very little remains in the hands of the graziers; from these causes, and the high price of meat, for those who have to purchase at this season to cover their marsh land, the prospect of profit in the ensuing summer wears but a sorry aspect, and the breeders, as for many years past, are again likely to realize the principal benefit. The corn trade, which had much improved since the last month, again flags, and wheat, which in our markets had got up to fifty shillings the quarter, has receded in some cases as much as five, and still looks downward. A good proportion of stacks appear in the farm yards, but the prospect of an average crop for next harvest seems extremely doubtful.—April 20.

WILTS.

After a long continuance of wet and storm, so that the arable land was not in a state to move without treading, it began to clear up on the 10th inst., since which time Spring sowing has done well. Some small quantity of barley was sown before this date, but, generally speaking, this was the time for beginning. Those who are unfortunate enough to have land to sow that is out of order, never could have an opportunity to effect anything like a clearing, and it must be sown in a bad state, or not at all. It has seldom been remembered that the working cattle have done so little in a time of the greatest importance to the farmer, from the middle of February to the second week in April; consequently, the Spring work is much behind. The "bushel of March dust" would have been very acceptable. The wheat is backward, and does not require to be fed off with sheep, and the plant good, except in a few spots, where it suffered from the wire-worm in the early part of



the winter. Winter vetches too are backward, but the frequent alternate frosts and thaws of the last season have not destroyed them. An attempt to introduce a new variety of oats as Spring food for sheep has been frustrated. The quantity of hay and turnips at this season has seldom been so small. A whole hay-rick is rarely to be met with, and water meadows are in great request. Many farmers who have been attempting to keep a larger stock on their farms to counteract the low price of wheat, will have reason to repent where they have much hay to purchase. The relative prices of sheep and wheat for the last few years have tended to promote this attempt, which the large extra consumption of hay during the past Winter will again check. The price of hay is from 25 to 50 per cent. higher than at this time last year, with a larger sale than has been known for many years. The breed of lambs is much complained of. From yearning time to the 10th of April they had scarcely a day without more or less rain, and frequently wind, snow, or hail. Some incurred diseases which they will never wholly overcome, and some died, more particularly on the 1st of April. The stock of wheat in the yards is great, but of other ricks, as hay, beans, &c., we never remember less at this season of the year. The poor laws are come into active operation through this county, and if we mistake not, the moral and political state of the poor will be eventually greatly bettered, and the rates reduced from one-third to (in some extraordinary cases) a half of the average of the last three years.—April 20.

#### SUFFOLK.

From the date of our last report to the end of March, but little progress was made with sowing Spring corn, and during the first twelve days of the present month the unfavourable weather we experienced also retarded the same. Since the 12th inst. however, the weather has been much more favourable, and the Lent corns are now generally put in, in tolerably workmanlike order; the wheats during March have first suffered, then recovered, then again suffered, and are now wearing a healthy verdant appearance, the causes for which were cold, wet, and changeable weather. The clover layers are promising, and Winter vetches are very flourishing. *Trifolium incarnatum* has been greatly injured by the frost and the cold wet weather we have had, and we fear there are but few pieces that will be fit to stand for a crop; however, they will produce a little feed for sheep, &c., which will be very acceptable, as stock are generally suffering, and have, during the Winter, suffered great privations from the loss or failure of the turnip crop. Hoggets and sheep have commanded unusually high prices, but during the last week the trade has become somewhat depressed; wool also is looking up; we have heard of 2s 3d per lb being offered for Down and Leicester hogget wool. Stock of every description is commanding much better prices, particularly hogs, which are invariably either "gold or brass," and although the corn market has received a temporary decline, we feel persuaded there has already dawned a brighter era for the farmer than it has been his lot to witness for many past years; we must also candidly admit the effect of the New Poor Law far surpasses what we expected it could possibly realize.—April 22.

#### KENT.

Since the last report, we have had some very ungenial weather for the growing crops, as well as to get in our Lent corn; so much rain and cold wea-

ther we have not experienced so late in the season for some years. The wheats have been much checked by it, but the loss of plant is by no means so much as was expected at one time, so that if we should now have warm weather, with a few intervening showers, we may yet see our fields well covered, except where they have been too long under water. The early sown Spring corn, in a very great number of instances, have a very sickly appearance; but the change of weather will no doubt do much to restore them to their usual colour. The finishing yet in our Spring crops this year has been a very tedious process, for when the land has been in a fit state, the rain put a stop to it sometimes for weeks, before we could commence again, and very often for several days, so that at this time some have not yet finished; the present appearances certainly are that we shall have a very backward Spring. The corn markets, no doubt governed much by the weather, have been rising; but, as before observed, it will benefit but few, as in many cases they have none to dispose of. In all our stock markets the supply has been very scanty, the butchers having to go many miles from their usual markets before they can get supplied, and only then if they give a greater price for their beef. The rise in sheep is considerable, and will no doubt continue till they lose their wool, which is now an article of very great consideration with the flock owners. The wool staplers are at the present moment buying all the wool they can, and at an advanced price, so that a number of holders of this article, who have kept it by them for years, and who have been induced to part with it, shows that the old stores will be mostly disposed of before the new comes into the market in any quantity.—April 21.

#### PERTSHIRE.

At this late period of the season sowing of spring seeds is just commencing, some few patches of beans were indeed got in near the end of February, but since that period the soil has uniformly been too moist for a seed bed. For many winters past the snow has not been so deep in the highlands as in the past month, and even last week it lay to the depth of fourteen inches in many places in the lower parts of the highlands, and from the variable and low state of the temperature the surface of the snow has become enervated, and as the lambing season had arrived, and the sheep returning from the moors in the low country, ploughs were employed on sheep walks to break the enervated surface of the snow in order to hasten its dissolution; the lambing season, under such circumstances, has hitherto been anything but favourable. The barley cultivated in this quarter under the name of Chevalier in nearly a fortnight later in ripening than common English barley, and requires to be sown early on dry bottoms. Some of this variety has been got in, but the greater part of beans on clay and retentive soils remain yet to be sown. The two past days having been fair, sowing of oats on open soils will this day commence with vigour, but a dense hard frost threatens another obstruction. The rapid alternations of sleet, rain, snow, frost, and high winds, with a generally low temperature, produced a sickly appearance in wheat-fields. On Tuesday the 5th inst. the temperature became something more elevated, and already the appearance of growing wheat is more favourable; in general farm labour and vegetation are two weeks later than usual at this period of the season. Clovers still plant close, and promise a fair hay crop. Italian rye grass is deservedly exciting notice; where the ground is partured the second year in alternate husbandry this is a most valuable

acquisition, producing a regular and rapid succession of green foliage so much liked by horses, sheep, and cattle, as to cause a regular cropping and prevention of running to seed of any of the other grasses which may be in the mixture. A third part of this excellent grass seed mixed with two-thirds of the ordinary varieties of rye grass, will considerably enhance the value of the succeeding hay crop on pasture. The untoward aspect of the weather produced a rise in the price, and a keen demand in the market for all sorts of grain. A considerable portion of wheat is still in the farmer's hand, but less of other sorts of grain. Potatoes are now getting scarce, and continue in request at from 13s to 15s per boll of 32 stones Amsterdam, or 17½ lbs to the stone. Cattle and horses have also experienced a rise in price in

the course of the past month. It is now fifteen years since some considerable landlords converted their money rents into rents payable by the annual average price of grain, and all such have had their rents generally well paid, without the tenant having to submit to the degradation of asking a reduction of rent which he had promised to pay. Where this salutary measure has not been adopted, either from ignorance or avarice, farmers have got into arrears, and some landlords, calculating on the full amount of their rent rolls, and living accordingly, have been at last obliged to pull in, re-value their land, reduce their establishment, and retire to some obscure quarter to recruit their finances by parsimonious living, reversing by such conduct first and last of the good old maxim of "Live and let live."—*April 11.*

## AGRICULTURAL INTELLIGENCE, FAIRS, &c.

**LOCKERBY SHEEP SHOW, March 31.**—This Show, by the great interest it created among the feeders of sheep, attracted, notwithstanding the badness of the day, numbers of farmers from every part of Dumfriesshire, and a good many from Galloway and Cumberland.

The experimental premiums for the greatest increase of weight from the 15th May last, of Cheviot and half-bred year-old widders, were the first determined, the main object being to ascertain the comparative increase in weight of these two kinds of stock, as well as the profit to be derived from keeping them into the second year. The premiums were awarded to the farmers who should make the greatest increase in live weight in three of each kind, not giving more than half-a-crown's worth of grain.

The first premium was awarded to Mr. Smith, Ladyland, of Kirkbean, whose six sheep had each increased in weight, on the average in the 10 months, about ..... 85lbs.  
 The second to Mr. Richardson, Lammonby, whose sheep had gained about ..... 74lbs.  
 Other two lots were shown, one belonging to Mr. Laurie, Terregles-town, ..... 65lbs.  
 Another to Mr. Stewart, about ..... 56lbs.

The two last had been much heavier and fatter at the commencement of the trial.

The average increases of weight on each of the 12 Cheviot Sheep was ... 62lbs.  
 On the 12 cross-bred, each ..... 75lbs.  
 —lbs.  
 The average live weight of the cross-bred was ..... 212lbs.  
 of the Cheviot about ..... 162lbs.

From experiments made by killing some of them, it was ascertained that the cross-bred (23 months old) would be about 32lbs, a-quarter; the Cheviot 24lbs. to 25lbs.; and on a calculation of the profit of keeping the cross-breeds for these 10 months, the feeder would be paid, at 5½d a pound of mutton, about ..... £1 11 0

The Cheviot at 6d., about ..... 1 6 0  
 There was a good show of half-bred hogs.

The first premium for the best score was given to Mr. Laurie, Terregles-town—bred by Mr. Renwick, Park.

The second to Mr. Richardson, Lammonby—bred by Mr. Hetherington, Roberthill.

The third to Mr. Richardson, Dryfeholm—bred by ditto.

The show of Cheviot hogs was the best that had appeared.

The first premium was awarded to Mr. Bell, Broomhill—bred by Mr. Little, Pennyland.

The second to Mr. Bell, Brigmuir.

Several of Mr. Laurie's hogs reached 140lb., or nearly 20lb. per quarter; and the Cheviot up to 119lb., about 16lb. a-quarter of mutton.

A party of 40 or 50 of the principal farmers afterwards dined together, having on the table legs of mutton killed from the competing lots of Cheviot and cross-bred widders a week before, and thus had an opportunity of judging of the comparative quality as well as the weights of each kind of stock. After dinner the conversation was devoted entirely to the practical subject of improving the mode of feeding stock in the south-west of Scotland for the English markets. It was also agreed that the market should in future be held a week later, and that besides the usual premiums, there should be given some expressly to ascertain the comparative advantage of feeding extensively with grain.

A general show of fat cattle and sheep at Dumfries for the Liverpool markets once or twice a-year was suggested; and all the gentlemen present seemed anxious to encourage such an exhibition, thinking the country now prepared for it.

The sixth anniversary of **BOTLEY CATTLE MARKET** was numerously attended. The competition for the prizes was great, and the sheep shown by the Hon. Mr. Gage, of Westbury; Mr. Fielder, of Sparsholt; Mr. King, of Cocum; and other gentlemen, were much admired for their qualities. The show of lambs was also excellent, and they met a ready sale. The judges of the stock were Mr. Lanham, of Southampton; Mr. Monk, of Portsmouth; and Mr. Gale, of Mitcheldever, whose award gave entire satisfaction to all parties. The prizes were thus awarded:—

A cup, value 4l., to Mr. William Barfoot, of Chicken Hall Farm, for the best South Down Lambs.  
 A cream ewer, value 4l., to Mr. John Atkins, of Barton Farm, for the best Lambs of any breed.  
 A new one-wheel plough (given by Mr. Canning), to Mr. Jacob Gater, of Swathling, for the second best Lambs of any breed.  
 A soup ladle, value 4l., to Mr. Warner, of Steeple Court, for the best Wether Sheep.  
 A new grass seed machine (given by Mr. Fletcher), to Mr. James Warner, jun., of Curdridge, for the second best Wether Sheep.

A gravy spoon, value 2l., to Mr. Jacob Gater, of Swathling, for the best Ewes.

At the conclusion of the market about 60 of the principal dealers and gentlemen attending the market sat down to dinner, presided by Mr. Gale of the Dolphin Inn, at which Sir Raymond Jarvis presided, and, as usual, successfully exerted himself to promote conviviality and enjoyment.

**ROMSEY SECOND PRIZE MARKET.**—The show of stock, particularly sheep and lambs was excellent, and so numerous that the market place was thronged. Many dealers attended, and consequently the greater part of the stock changed owners. Mr. Twynam, of Whitechurch, although excluded by distance from contending for the prizes, exhibited some tegs of the Cotswold and Southdown cross, which were particularly admired from the immense size they had attained at the early age of 14 months, and from the quantity and quality of their wool. One of the sheep was shorn in the market, and the fleece weighed 12½ lbs. Mr. R. King of Barton Stacey, and late of Lee, near Romsey, also exhibited some Southdown wethers, which were considered perfect; and amongst the horned cattle, two heifers, belonging to Mr. Gater of Swathling, obtained universal commendation. The prizes were awarded as follows:—

Best fat ox . . . . .	£6	Mr. Lanham
Second best . . . . .	4	Sir Wm. Heathcote
Best fat heifer . . . .	5	Mr. Gater
Ten best wethers . . .	5	Mr. Rich. King, jun.
Second best . . . . .	3	Sir Wm. Heathcote
Ten best lambs . . . .	5	Mr. Lowman, Nursling.
Second best . . . . .	3	Mr. Gater
Best fat calf . . . . .	3	Mr. Green

**SHERBURN MONTHLY CATTLE MARKET.**—We had a very good supply of fat beasts this day, which sold readily at from 6s 9d to 7s per stone; fat sheep from 7d to 7½d per lb. Lean beasts fetched high prices, and straw-yard pigs (though not numerous) were readily sold. The attendance of buyers and dealers was numerous and respectable. Situated in the valley of the Derwent and Harford, at the foot of the Yorkshire Wolds, on the direct road between Scarborough and Malton (being only eleven miles from each place), this market is considered a superior outlet for the fat sheep stock, from the extensive sheep walks in its vicinity:—the fertile downs and grazing lands north of the Derwent and neighbourhood, almost always ensuring a supply of fat and lean cattle. The general use of bone manure upon the formerly barren districts of the Wolds, has caused a complete revolution in the system of husbandry there practised; and a good crop of turnips can now, almost with certainty, be procured in situations where, a few years ago, the agriculturist could barely obtain, even in the most favourable seasons, a scanty and inefficient supply, hence his sheep stock were either sold in the Autumn, or wintered in the neighbouring lowlands at an extra expense, and in situations detrimental to the well-being of his flock. From this improvement in agriculture, and the increased quantity of fat thereby produced for sale, the necessity of establishing this market became apparent, and the patronage so far bestowed upon it by dealers and others, has fully equalled the most sanguine expectations of its public spirited promoters.

At **SHREWSBURY FAIR** the supply of fat sheep was not equal to the demand, and the whole were readily sold at 8d per lb; some brought higher prices; (at recent sales around the town, flocks have been sold as high as 9½d to 10d per lb;) ewes and lambs sold readily and well: but very poor couples were not readily sold. The supply of cattle was good, and the breeders were firm in asking 7d per lb, but very few obtained that price; 6d per lb being the general run, and those who would not sell at that price took their cattle home: 10s a-head over 6d per lb was nearly the highest price. Fine outlying bullocks, half-meated or better, were in demand; one team of bullocks were sold for 28/ per head. Good cows and calves sold well: but poor barrens, owing to deficiency in keep, could scarcely be sold on any terms. Pigs were scarce, and from 2s to 4s a-head higher. The dairy fair was very brisk—cheese, of which the supply was not great, was rapidly sold; skims 45s to 50s per cwt; middle dairies 56s to 62s; best 68s to 70s. A few tubs of butter were exposed, but the season is not favourable for its sale. A moderate supply of bacon was offered, and sold at 6d to 6½d per lb, hams, 7d.

At **POOL (MONTGOMERYSHIRE) FAIR**—Prime fat sheep obtained nearly 8d per lb; pigs, of which there were few, sold at an advanced price. There were very few fat cattle, but they sold well: there was a large number of store cattle, but a small demand, in consequence of the want of grass, and the backwardness of the spring. Two droves of cattle from Merionethshire, in fresh condition, passed through Pool and Shrewsbury yesterday, on their way to Northamptonshire and Leicestershire.

At **ILSLEY SHEEP MARKET** a great supply was exhibited, and every description something cheaper. One parcel of tegs, without the wool brought 47s; the sum of 12s a head was refused for the wool. The quality of all descriptions was far better than was expected.

**ARDEE FAIR, (IRELAND).**—At this Fair the stock disposed of, dry cattle excepted, generally realised high prices. The fat cattle were of a superior quality. There was a large lot belonging to W. P. Ruxton, Esq. for which there were many bidders, and high prices offered. Two cows, the property of the same gentleman, were sold, one for 25 guineas, the other 22. The largest cow weighed over 10½ cwt: some of it was disposed of so high as 8d per lb. A beautiful two-year old bull, belonging to T. L. Norman, Esq. of Corballis, was exhibited, and 32/ demanded for it; it was not however sold. A fine lot of wedders belonging to G. Taffe, Esq. of Smarmor Castle, was sold at 3/ per head. Fat Pigs rated at about 30s per cwt.; slips and sucking pigs rather higher. There was a large show of dry cattle, but owing to the backwardness of grass and the dearth of fodder, few of them were purchased; such as were sold underwent a great depreciation. The horse fair was poorly attended, and such as were exhibited were of a very inferior sort. On the whole, a good deal of business was transacted, and cash to a considerable amount disbursed.

**DEVIZES GREEN FAIR** was well attended, and horned cattle and sheep sold briskly at good prices. Three fine fat beasts, exhibited by Mr. S. Ferris (a celebrated grazer of Bulkington) were sold to a gentleman of Oxfordshire for 100 guineas. It is a general observation throughout the country, that at no former period was there such a scarcity of fat sheep. Good mutton, therefore, obtains very high prices.

## TO THE EDITOR OF "THE FARMER'S MAGAZINE."

SIR,—In your number for February, a Subscriber wished to be informed of a remedy for Straining in Ewes after Lambing; now the one I should recommend is Cuff's Farmer's Friend, if given immediately after a difficult lambing; yet, as the prevention is easier than the cure, the ewes should have a small portion of linseed cake daily, for at least a fortnight before lambing, as I have found from experience ewes never lamb well that live entirely upon turnips. Straining often takes place in ewes two or three days after an apparently easy lambing, yet is brought on by a sudden change from turnips to seeds or grass; when that is the case, I have rarely ever seen any recovered. Linseed cake, besides preparing the ewe for a change in keep, gives a richness to the milk which nothing else can.

If, Mr. Editor, you consider these few remarks worthy a place in your valuable magazine, I have no doubt by a trial of the simple plan I have recommended, many of your readers at another lambing season will be of my opinion, that they had better give a part of their turnips away (if too many) than omit using a portion of linseed cake.

I am, Mr. Editor, yours, very respectfully,  
A YORKSHIRE FARMER.

April 22, 1836.

## REVIEW OF THE CORN TRADE DURING THE MONTH OF APRIL.

At the commencement of the past month, the prevalence of rainy, cold and ungenial weather, not only checked sowing and field labour, but prevented vegetation from evincing any progressive improvement. Low, strong lands were rendered unfit to receive the seed, and Wheats in many places exhibited a sickly appearance, turning partially yellow, and looking thin and unfavourably; the re-appearance, however, of sunshine, about the middle of the month, had an invigorating effect on the plant, which assumed a deep and healthy green, tillering out strong, and covering well the ground, while the farmer has been enabled nearly to conclude the sowing of his Lent corn. Vegetation and germination are extremely backward, but under the mild influence of the present month, the plants possess the full embryo power of rapidly advancing, and partially retrieving the time that their vegetative powers have remained dormant; affording little opportunity, from existing appearances, to enter into further speculative purchases, on the probable result of the crops; as there is reason to believe there is sufficient plant to produce a fair average per acre; but accounts seem to concur in stating, that the breadth of wheat sown this season is less than usual, particularly in the midland counties, which is attributable to the low price of wheat, and the failure of the turnip crop having prevented farmers breaking up land they otherwise would have done. No doubt the backwardness of the season has operated advantageously for the farmer, as it has been one of the causes of bringing the state of the trade under more general notice, added to the prosperous condition of almost every other branch of commerce; indeed it is a gratifying remark to make that our manufactures are in a state of almost unexampled activity—our mines, that important source of national wealth in full and profitable operation—our commerce busy, and consumption, the faithful index and concomitant of prosperity, going forward on a largely increased scale of all the necessaries and many of the comforts of life. With a productive harvest, grain may be now calculated at a fair value, but with an inferior or even a middling crop, prices are yet low and will be materially influenced by the weather.

The consumptive demand for cloverseed may be considered as closed for the season, and much disappointment has been experienced throughout the latter months, at the languid character of the market. Reports, after the gathering of the crop, represented the yield as extremely deficient, and little more than *one-fourth* of an average growth,

owing to the drought in the first cutting of the seed, and the unfavourable weather prevailing for securing the second. Extensive speculations were entered into in foreign seed, and prices rapidly advanced at all the markets abroad. The currencies however, since January, have continued to recede, and are now fully 15s per cwt lower than at the termination of December for English samples, and 15s to 20s for foreign. The supplies of English have been larger than anticipated, and the quality remarkably fine, and much of the demand has been drawn off from the London market, owing to the direct imports from Holland, Germany, &c., to different parts of England, Scotland, and Ireland; in fact to those places which have been accustomed to make their purchases in the metropolis. The foreign seed has been, for the most part inferior this season, particularly the French, Brabant, and Rhenish, owing to the continued drought; the American seed being the finest at present offering, and which is held at from 60s to 63s; extra fine, 65s. The only interest now existing, therefore, in the trade, is on speculation; and at low figures there are several purchasers ready to make investment.

The important assistance that mangel wurzel has proved as an article of feed, the past season, has induced an extended breadth of this valuable root to be cultivated; from Ireland also there has been an extra demand for seed, and latterly for France purchases have been making, which, as the stocks of seed were not large, have advanced the prices to 100s and 112s per cwt, with very little at present left on hand. The season is also extremely favourable for its sowing, as the seed generally *hits* well, if put into the ground, when thoroughly saturated with moisture.

During the early part of April the prevalence of rainy weather had the effect of enhancing the prices of wheat, and factors were enabled to realize an advance of 1s to 2s per qr, white wheat in runs obtaining 55s to 56s, fine parcels being worth 57s to 58s: red runs sold at 50s to 51s, fine 52s. The supplies, however, having proved rather liberal, exceeding on the aggregate those of the previous month by 6,000 qrs, and the weather becoming more favourable, prices again receded, and though early in the season for the market to be influenced by the *barometer*, yet each succeeding day has exemplified the fact, and though every advantage has been taken by holders of endeavouring to realise more money on the occurrence of a wet day or clouded atmosphere, yet the currencies have declined 3s to 4s, red wheat being noted at 47s to 48s; white 54s to 55s, with a

tendency in the trade further to give way, on the continuation of mild temperature, as supplies no doubt will increase with the addition of the samples which will be offered from granary by the purchasers in speculation; though we do not apprehend that fine red wheats will go lower at present than 45s, and white 50s.

The advices received in the early part of the month from New South Wales corroborating the previous dull accounts, checked further shipments of bonded wheat to that distant colony, and as the duration of Winter in the United States had prevented the various cargoes of wheat which had arrived from Europe, from being brought upon the market, the demand for bonded wheat relaxed, but as the stocks were much reduced, further orders were transmitted to Hamburg, and the lower and upper Baltic ports, for the purchase of the finer wheats, to be retained in granary, and await either an improvement in the foreign markets, or a decline in our duties; the advance, however, in the demands of foreign holders have prevented the execution of several orders. Danzig wheat in bond has been held at 35s. Mecklenburg, Holstein, and Upper Elbe qualities 28s, and though of late the accounts from New York, Philadelphia, Baltimore, and Boston, have stated various sales of European wheats at high prices, yet speculators are awaiting a more general result from their shipments and account sales, before increasing their consignments. The principal shipments of wheat have been 700 qrs to Quebec, about 600 qrs to Guernsey, 300 to Nova Scotia, 1,600 to Sydney, 500 to Cherbourg, 900 to the Mauritius, 1,100 to New York, and 300 to 400 to Baltimore.

The advance in wheat and steadiness in the prices, enabled millers to realise an improvement in flour, and town made qualities were first noted at 45s and then 48s per sack, which are still the nominal quotations, purchases very generally made at 45s to 46s, according to circumstances, and even less money is taken in some instances; the bakers only buy for their immediate wants, and the trade, therefore, rules dull; ship's flour participated in the advance, and 38s was readily realized for Norfolk householders; but prices, have now receded 1s to 2s; and the nominal top quotation of town made next week will most likely be 45s, and the selling prices, 42s to 43s; and ship's flour 33s to 34s. Bonded flour has been in request for shipment, but the stocks are extremely short, and though the few arrivals which have been received from the Elbe and Baltic have met ready purchasers, yet many orders are unexecuted from want of supply. Sour qualities realize 20s to 22s; sweet, 21s to 25s; during the month there have been exported about 2,300 cwts to the West Indies, 5000 cwts to Sydney, 300 to Luncheon, 400 to the Cape of Good Hope, 4000 to Pernambuco, 400 to the Mauritius, and 410 cwts to Cherbourg.

The averages have strongly exhibited the effects of the improvement in wheat throughout the kingdom. The aggregate average price of wheat has advanced from 42s 9d to 46s 1d, making the duty 4s lower, being now 40s 8d, and the London average of wheat has risen from 46s 3d to 52s. Other articles having previously maintained a higher relative value, were not of course susceptible of a proportionate enhancement; the aggregate average of barley exhibits a difference of only 1s 4d, having risen from 29s 3d to 30s 4d. Oats from 20s 10d to 21s 7d. Beans from 31s 9d to 35s

4d, and peas from 33s 9d to 35s 5d; the duties on the first articles have receded 1s 6d per qr. and 2s per qr on peas.

During the month of April the following quantities of grain and flour have arrived in the port of London:—

	Wheat.	Barley.	Malt.	Oats.
	qrs.	qrs.	qrs.	qrs.
English .....	34,423	30,897	36,072	17,924
Scotch .....	350	6,427	376	14,137
Irish .....	...	1257	...	62,290
Total in April.	34,773	38,491	36,448	94,351
Total in March	28,375	27,513	24,674	49,154
Total in Feb...	27,564	37,428	28,616	56,597
Total in Jan...	32,183	44,949	33,702	86,142
Foreign in April	3,040	420	...	239
	Beans.	Peas.	Linseed.	Flour.
	qrs.	qrs.	qrs.	sacks.
English .....	4,797	1,314	212	35,280
Scotch .....	131	19	...	271
Irish .....	15	60	...	1,110
Total in April.	4,943	1,423	212	37,461
Total in March	5,318	2,945	261	27,707
Total in Feb. .	8,679	3,589	39	30,412
Total in Jan...	8,514	6,584	16	35,507
Foreign in April	893	60	11,705 brls.	10,575

The arrivals of barley have been liberal, and exceed those of March by nearly 11,000 qrs. At the beginning of the month, the short supplies of barley, added to the unfavourable appearance of the weather for the seed already sown, and the period becoming protracted for the completion of sowing, caused a speculation, added to a consumptive demand for the article, and prices advanced 2s to 3s on the fine malting qualities, and 3s to 4s on distilling and grinding sorts; Chevalier having been noted at 38s to 39s, and extra, 40s. Norfolk and Suffolk malting at 35s, extra 36s; distilling 33s; fine stout 34s; grinding 30s to 31s. This advance in the prices and the improvement in the weather, brought forward increased supplies, and though the demand continued free, yet the additional receipts had the effect of checking the trade, and prices of all sorts gave way 1s per qr; the maltsters showing little disposition to get further into stock at present, as the malting season is approaching its close, unless the weather remains cool. Distillers' qualities, however, continue saleable, as well as grinding parcels, but it is to be apprehended, that supplies having been kept back, owing to the wet, we shall have soon an influx of the article, if sunshine prevails, and the present currencies, therefore, cannot be expected to be maintained except for the selected parcels of Chevalier for the ale brewers. Bonded barley is very scarce, and shippers have been unable to find parcels to meet their wants and a few hundred quarters only have been shipped to Oporto, and America. The whole stock in bond in London did not exceed 6,725 qrs on the 5th of April, and in the United Kingdom 41,368 qrs; and good qualities of Danish barley have freely obtained 18s. A few purchases have been made in Mecklenburg and Holstein, but prices are ruling too high to allow of any extensive transactions.

Malt, in consequence of the advance in barley, has obtained 2s to 3s per qr more money than at the close of March, and though the trade latterly has been languid, yet the improvement has been supported.

The supply of oats has exceeded that of the previous month by 45,197 qrs; the dealers and consumers had become extremely bare of stock, anticipating large supplies, and a consequent reduction in prices; but though the receipts have been considerable, yet purchasers have been found even at an advance of 1s to 2s per qr upon all descriptions of fresh feed; but Scotch potatoe having come freely to hand are rather cheaper, while the stale and inferior descriptions have been difficult of disposal, and sustained no improvement in value. Several sales have been effected of Irish oats free on board at advanced terms; good fresh oats of 40lbs to 42lbs have been taken at 11s 6d to 12s; and 10s 6d to 10s 9d for Galways, but the chief business transacting has been on the west and north-west coast. Oats in bond have been bought for export to the West Indies and United States of America. The shipments have comprised 1,900 qrs to Boston; 1,840 qrs to New York; 500 qrs to Baltimore; 1,150 to the Mauritius; 600 to Spain, and 900 to 1000 qrs to the West Indies, and 50 qrs to Nova Scotia. Russian oats are held at 12s to 14s; Danish and Swedish, 13s to 14s; Friesland, feed, 13s to 15s; brew 15s to 16s.

Beans have been in short supply, and the article meeting an improved demand, prices have augmented 3s to 4s per qr., at which enhancement they remain steady.

The demand for white peas has much increased, not only being taken, as before alluded to, for feeding lambs, but the best qualities have found purchasers on the part of millers, who are grinding up the article to mix with the more ordinary, and ill conditioned wheats; and in consequence sustained an improvement during the fore part of the month of 4s to 5s, but receded again before the close 1s to 2s, but were steady at this reduction. Grey and maple are also 1s to 2s higher, as well as Mazagan; for fine white Suffolk as high as 45s to 46s have been paid, but which are now worth only 44s.

In Canada the prices of wheat remained dull, and the grain market generally languid. Lower Canada red wheat was still held at 5s and 5s 6d per minot; barley had been sold at 3s; and oats at 1s 9d per bushel. Flour of superfine quality was nominal at 31s 3d to 32s 6d per barrel.

The merchants are complaining that, should an Act of Parliament be passed, authorizing the manufacture of bonded corn into flour for export, it would have a serious effect on the trade in Canada, as flour could then be exported from England to Halifax, or the West Indies, at a cheaper rate than from either Quebec or Montreal.

In France, the prices of wheat continue firm, and for flour there has been a partial demand at Paris, Etampes, &c., for inferior qualities to ship down the Loire to the Southern departments, principally to Cete, from whence it will be transported into Languedoc and Provence. From Bordeaux and the neighbouring district of the Garonne, as well as the Geronde farmers are complaining of the miserable appearance of the crops; the continued rains having weakened the wheat plant, and made it sickly. Rye was scarce, and the crop was not expected to produce more than half an average quantity; in fact from all the departments in the Southern portion of the kingdom, the reports are unfavourable as to the appearance of the young wheats. The sowing of oats is also in parts still prevented by the weather, and where Spring corn has been got in early, it has entirely failed in some places, and the ground ploughed again in order to

be resown. From Beauce, Brie, Picardy, and the Northern divisions of the country, much less apprehension however is entertained for the plant. The aggregate average price of wheat throughout France for the month of March, exhibits an improvement of 40 cents per hectolitre, or about 1s per qr, having been 15 francs 49 cents., or about 34s 9d per qr, while on the 29th of February, the rate was only 15 frs. 9 cents, or about 33s 9d. The aggregate for the last 17 years at the end of March has been about 40s per qr, the lowest price having been in 1822, when the average did not exceed 31s 4d, and the highest in 1832, having been 53s 8d. This improvement of 1s per qr, is in itself not very important; but the remarkable point is, the difference the classification of the average prices creates in the specified departments, as regards the admission of foreign wheat; thus at Marseille, Toulon, Cete, &c., the regulating average price is 17 francs 25 centimes, or about 40s 4d per qr; but foreign wheat cannot be admitted in that section under 12 francs 25 centimes per hectolitre, if imported in French vessels, or 13 francs 60 centimes in foreign; while the average of the second section of the fourth class is only 16 francs 47 cents, or about 37; and the duties imposed on the entrance of wheat at the ports of Cherbourg, St. Malo, St. Brieune, Morlaix, Brest, L'Orient, &c., including in fact, all parts from the department of Calvados and Cape Barfleur to the river Vilaine, in the Bay of Biscay, is only 4 francs 75 centimes, in French ships, or about 11s 2d per qr, or 6 francs per hectolitre in foreign bottoms, or about 13s 1d per qr. Thus the duties at those markets where the greatest demand is experienced, are still too high to admit of foreign imports; but at Cherbourg, Brest, Morlaix, and L'Orient, &c., the duties are 17s 9d per qr less than at Marseille, Toulon, &c., and therefore it is necessary, if exports are made from this country to the Mediterranean ports, for the vessels to be chartered with the agreement, that they touch at Cherbourg, or one of the above named ports, and having had their cargoes entered and paid duty, to proceed afterwards to Marseille.

At Algiers, wheat and flour in moderate quantities are likely to meet demand for the next four months.

Wheat in the Italian markets remains steady in price.

At Naples, some mills are being erected under the patronage of the Neapolitan Government, and the flour produced is entering into competition with that of the French millers, in the French African ports. The exclusion of the Barletta wheats at Marseille, has partly instigated their establishment. The trade had been momentarily affected by the failure of a house in the corn business. Barletta wheat however, for immediate delivery, was noted at 20s 6d, and at the end of April, at 23s 6d. At Trieste, Italian and Odessa wheat was worth 25s 6d to 30s 10d. At Leghorn and Genoa prices were unaltered.

Mild weather having continued to prevail in the United States of America, business had become more animated, and some progress had been made in clearing off the large quantities of European wheat, &c. which were afloat at New York, watching a market. 7,000 bushels of Russian wheat destined for Troy, had been sold at 47s 4d, including duties, expenses, freights, difference of measure, &c. Some fine white wheat had obtained 55s, 56s to 59s 4d; Danzig wheat, 55s; other parcels, 52s 10d. Russian and Prussian rye, 38s 11d. The barley from London realized only

60 cents., or about 22s. Some good oats from England had been sold at 29s 4d. Western Canal flour was advancing in price, and noted as high as 37s 8d to 38s 3d per barrel. At Philadelphia, wheat sold at 51s 4d to 53s; at Baltimore, 53s 2d to 54s 4d. At Boston, about 1,000 qrs of oats received from England had brought 22s per qr.

In South America restrictions had been imposed on the admission of flour; at Monte Video the duties had been advanced three dollars, and at Buenos Ayres, the import of the foreign article was prohibited from the 1st of January.

In the Russian markets prices of grain remained steady, but the quotations of Kubanka and Courland wheats ranged too high to admit of any orders being executed. Moschansky linseed was held at 43s to 43s 9d for August delivery. An Imperial Ukase had appeared in reference to the free admission previously granted, of grain into Esthland and the port of Narva, until the 13th of January, 1837, owing to the failure in the crops, but prohibiting its re-export from any port of the province, or the transmission by land to St. Petersburg, on penalty of forfeiture of the article. At Riga, Linseed has been enquired for, but sellers had withdrawn for the present from the market; crushing qualities were held at 39s 5d to 43s 3d, as in quality, and according to time of payment. Hempseed, 28s 3d to 28s 9d. Wheat was quoted at 22s 8d to 26s 3d for Courland descriptions. At Danzig the increased orders from England had caused additional animation in the trade; really fine white wheat had obtained as much as 35s per qr into granary; good mixed and ordinary high mixed, 29s; mixed descriptions, 27s; red mixed, and red sorts, of 60lbs, 24s; and some mixed Polish wheat, defective in colour, sold on delivery, at 29s per qr, free on board. Some parcels of high mixed wheat had been received from Elbing, which realized 30s to 31s, the colour good, as well as the quality, and the samples ranking as the best to be obtained from the last harvest; prices therefore, on the whole, must be considered 1s to 2s per qr higher. Several orders had been received for shipment, which was rather desirable, as warehouse room was becoming scarce, and should the bulk of wheat already bought, remain during the season, the rents would, no doubt, advance. Vegetation was very backward, but the farmers considered the circumstance rather favorable than otherwise. The Rape plant had a sickly appearance. At Stettin, wheat had advanced at 26s 6d, and become too high to admit of the further execution of orders at present. At Rostock and Wismar, also little business had been transacting since the last advices, owing to the orders being limited, lower than the prevailing currencies; the top quotations were 25s 6d; some oats had been bought at Rostock at 13s 6d; and barley at 16s 6d, and more orders were on hand, but the rates too high to admit of their execution. These remarks are also applicable to Holstein. At Hamburg the dull accounts from England has checked the advance in prices, and from 8000 to 10000 qrs. had already been bought for British account, yet most of the orders remaining on hand were limited too low for immediate execution. Upland red wheat was noted at 25s to 27s 6d per qr., but on the receipt of the Mail from hence of the 19th inst. holders were inclined to accede to a reduction of 1s to 1s 6d per qr. Linseed cakes were in request, and for delivery in July, as high as 7l to 7l 3s had been paid for Fleusburg quality, with a freight of 15s in full. At Rotterdam, purchases

of wheat had been made for America and Rio de Janeiro, and a little for English account; prices of Rhine in bond were 25s 8d to 26s 6d, and Danzig free, 35s 9d to 41s 7d. Linseed cakes in demand, and best qualities not to be obtained under 6l 3s 6d, and the stock very limited. Rape cakes 4l 16s.

CURRENCY PER IMPERIAL MEASURE.

	BRITISH.		APRIL 1.		MAY 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk.....	38	48	38	48	38	48
White.....	42	54	42	55	42	55
Norfolk, Lincolnshire and Yorkshire.....	37	46	37	46	37	46
White, do. do.....	40	52	40	52	40	52
West Country Red.....	36	44	36	44	36	44
White, ditto.....	38	50	38	50	38	50
Northumberland and Berwickshire Red.....	35	42	35	42	35	42
White, ditto.....	37	48	37	48	37	48
Irish Red.....	—	—	—	—	—	—
Ditto White.....	—	—	—	—	—	—
Barley, Maltng, new.....	31	34	32	35	32	35
Chevalier, new.....	34	37	35	38	35	38
Distilling.....	26	20	50	33	20	50
Grinding.....	24	28	26	30	24	28
Irish.....	24	27	24	29	24	29
Malt, Brown.....	40	49	41	52	40	49
Ditto, Chevalier.....	58	61	60	64	58	61
Ditto, Norfolk and Suffolk Pale.....	46	56	50	60	46	56
Ditto Ware.....	58	61	60	64	58	61
Peas, Hog and Grey.....	30	32	32	34	30	32
Maple.....	31	23	32	34	31	23
White Boilers.....	34	41	34	44	34	44
Beans, small.....	34	42	38	46	34	42
Harrow.....	30	40	34	44	30	40
Ticks.....	29	39	33	42	29	39
Mazagan.....	30	32	32	40	30	32
Oats, English feed.....	20	20s 6d	21	23	20	20s 6d
Short small.....	21	24s 6d	22	25	21	24s 6d
Poland.....	22	25s 6d	23	26	22	25s 6d
Scotch, Common.....	20	25	21	26	20	25
Berwick, &c.....	22	24	22	27	22	24
Potatoe, &c.....	24	29	24	28	24	28
Irish, Feed.....	16s 0d	19s 0d	18s 0d	21s 0d	16s 0d	19s 0d
Ditto Potatoe.....	20s 0d	22s 6d	22s 0d	24s 0d	20s 0d	22s 6d
Ditto Black.....	17s 6d	20s 0d	20s 6d	22s 0d	17s 6d	20s 0d

PRICES OF FLOUR,

	Per Sack of 280 lbs.		APRIL 1.		MAY 1.	
	s.	s.	s.	s.	s.	s.
Town-made.....	36	42	40	48	36	42
Norfolk, Suffolk, Kent, and Essex.....	30	34	34	36	30	34
Sussex and Hampshire.....	29	33	33	35	29	33
Superfine.....	34	—	36	—	34	—
Lincolnshire, Yorkshire, and Stokton.....	29	32	32	34	29	32
Northumberland, Berwick, and Scotch.....	28	32	32	33	28	32
Irish.....	29	32	30	33	29	32
Extra.....	—	—	—	—	—	—

IMPERIAL AVERAGES.

	Wheat	Barley	Oats	Rye	Beans	Peas
Weekending 11th.....	45 0	29 4	21 5	32 5	35 5	33 11
18th.....	44 2	29 8	21 2	32 8	34 7	33 11
25th.....	44 7	30 5	21 6	30 3	35 4	34 7
1st April.....	46 5	30 9	21 9	29 4	35 5	35 6
8th.....	47 7	31 4	21 9	29 2	35 6	36 1
15th.....	48 8	32 1	22 1	29 7	35 7	38 4
Aggregate Average of the six weeks which regulates the duty.....	46 1	30 7	21 7	30 0	35 4	35 5
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London.....	40 8	16 10	15 3	24 3	16 9	16 9
Do, on grain from British possessions out of Europe.....	5 0	2 6	2 6	3 0	3 0	3 0
Foreign Flour, 28s 8d per 196lbs. British Possessions do, 3s per 196 lbs.						

**STOCK OF GRAIN AND CLOVERSEED IN BOND IN THE PORT OF LONDON ON THE 5TH APRIL.**

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Cloversd.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
222,596	6,725	67,086	2,008	3,580	30,704	29,895
			Rye, 18 qrs			

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th April, 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat.	Barley.	Oats.	Rye.
	bush.	qrs.	qrs.	qrs.
Quantity imported . . . . .	—	..	..	..
Do. entered for home consumption . . . . .	500	29	56	..
Do. remaining in warehouse . . . . .	551,526	41,368	220,637	1,484
	Peas.	Beans.	Maize	Flour.
	qrs.	qrs.	qrs.	cwts.
Quantity imported . . . . .	797	861	..	5,637
Do. entered for consumption . . . . .	96	..	5	1,839
Do. remaining in warehouse . . . . .	8,334	4,755	819	200,525

**BOROUGH AND SPITALFIELDS MARKETS.**

	APRIL 1.		MAY 1.	
	£ s.	£ s.	£ s.	£ s.
Ware, Scotch reds . . . . .	4 0	4 10	4 10	5 0
Marsh Champions . . . . .	3 10	4 0	4 0	4 10
Common reds . . . . .	3 10	4 0	4 0	4 10
London whites . . . . .	3 5	3 15	3 15	4 5
Shaws . . . . .	3 5	3 10	3 15	4 0
Middlings, Scotch reds . . . . .	3 10	3 15	3 15	4 5
Marsh Champions . . . . .	2 15	3 3	3 5	3 15
Common reds . . . . .	2 15	3 3	3 5	3 15
London whites . . . . .	2 5	3 0	2 10	3 10
Shaws . . . . .	1 15	2 5	2 0	2 15

**PRICES OF HOPS IN THE BOROUGH.**

	APRIL 1.		MAY 1.	
	£ s.	£ s.	£ s.	£ s.
East Kent Pockets . . . . .	5 15	7 0	6 5	7 5
Mid-Kent Pockets . . . . .	4 10	5 5	5 0	5 15
Essex Pockets . . . . .	0 0	0 0	4 10	5 10
Sussex Pockets . . . . .	3 10	4 0	4 5	5 0
Farnham Hops . . . . .	0 0	0 0	9 9	10 10
Yearlings, Bags . . . . .	3 15	4 10	0 0	0 0

**WOOL MARKETS.**

**BRITISH.**

Per lb.	APRIL 1.		MAY 1.	
	s. d.	s. d.	s. d.	s. d.
Down Tegs . . . . .	1 10	1 11	1 10	1 11
Half-bred do . . . . .	1 10	1 11	1 10	1 11
Ewes and Wethers . . . . .	1 8	1 9	1 8	1 9
Leicester Hogs . . . . .	1 4	1 5	1 4	1 5
Do. Wethers . . . . .	1 6	1 7	1 6	1 7
Blanket Wool . . . . .	1 0	1 6	1 0	1 6
Flannel . . . . .	1 3	1 9	1 3	1 9
Skin Combing . . . . .	1 4	1 6	1 4	1 6

**SCOTCH.**

Per Stone of 24 lbs.	APRIL 1.		MAY 1.	
	s. d.	s. d.	s. d.	s. d.
Laid Highland Wool, from, 12	6	13 0	12	9 to 13 3
White Do. Do . . . . .	15	6 16 0	16	0 16 6
Laid Crossed Do . . . . .	15	6 16 6	16	0 17 0
Washed Do. Do . . . . .	17	0 18 0	17	6 18 6
Laid Cheviots . . . . .	19	0 21 0	19	6 21 6
Washed Do . . . . .	24	0 26 0	26	0 28 0
White Do . . . . .	30	0 32 0	32	0 34 0

**LIVERPOOL.**

WEEK ENDING APRIL 23.

ENGLISH WOOLS.—In this description of wools very little business has been doing. The stock in this district is limited. Prices will remain as at present until the beginning or middle of May, by which time the new clip will, probably, be in the market. Combing fleeces, 19½d to 20½d; Down ewes and wethers, 19d to 20d; ditto tegs, 21d to 22½d; super. skin, 18d to 19d; head ditto, 15d to 17d.

SCOTCH WOOL.—We have very few transactions to notice this week in Scotch Wools. A few sales of Cheviot have been made at full prices. Laid Highland is dull, and although the stock on hand is unusually small for the season of the year, we think sales would now be made rather in favour of the buyers. In Cross and White Highland we have not heard of any business.

	per stone of 24lbs.	
Laid Highland Wool, from 12s	9d to 13s	3d
White do. do . . . . .	16s	0d 16s 6d
Laid Crossed do. . . . .	16s	0d 17s 0d
Washed do. do . . . . .	17s	6d 18s 6d
Laid Cheviot do. . . . .	19s	6d 21s 6d
Washed do. do . . . . .	26s	0d 28s 0d
White do. do . . . . .	32s	0d 34s 0d
Import for the week . . . . .	63 bags	
Previously this year . . . . .	2182 do.	

IRISH WOOLS have been very quiet since last week. There has been no reduction in prices, although holders are more disposed to give way than they were a few weeks ago. The market is not, upon the whole, so firm. The imports are 118 bags. Irish fleeces, mixed lots, 19d to 20d per lb; do. wethers, 18d to 19d; ditto hogs, 20½d to 22d; ditto combing skin, 17d to 18d; ditto short skin, 14½d to 17d. Import for the week, 118 bags; previously this year, 1,630 ditto.

FOREIGN WOOLS.—Some sales by auction have taken place during the week, which have commanded good prices. The greater part of the Peruvian offered for sale was withdrawn, only 20 bags out of 400 having met with purchasers. The sales of East India fared better, especially the inferior descriptions. There was a large attendance of buyers from the manufacturing districts. The annexed quotations were fully supported: Foreign—Odessa, fine, 2s to 3s 6d; Portugal R., 1s 5d to 1s 7d; Portugal, low marks, 1s 0½d to 1s 2½d; Spanish R, 2s 6d to 2s 9d; Spanish, F S, 2s 2d to 2s 4d; German fleeces, 2s 2d to 2s 6d; ditto assorted, 2s 6d to 2s 9d; ditto lambs, 2s 6d to 3s 6d; New South Wales, 2s 4d to 3s 0d; Russian wool, 8½d to 9½d; Buenos Ayres, 4d to 5½d; Mogadore and Barbary, 4½d to 6d. Import for the week, 194 bales; previously this year, 5,892 ditto.

**FOREIGN.**

APRIL 25.

Supplies, of Foreign Wools, have consisted, since this day se'nnight, of about 1,150 bales, principally from Germany and Turkey, with a few from the Cape of Good Hope. Last week's sales were well attended by buyers, and nearly the whole of the wool was sold, at about the prices obtained at the sales which preceded them. There are two additional sales, of 523 bags and 280 bales, of German, Dutch, Tuscan, Donskey, and Spanish Wools, appointed to take place at Garraway's, on the 27th and 28th inst.; making the total quantity to be offered for sale, next week, about 1,250 packages. Private contract demand is very steady, at fully stationary prices.

**BONES.**

Since our last there have passed the SOUND, or by ELSINORE, and the GREAT BELT, ships loaded with Bones, bound for Hull, 6; Grimby, 2; other parts of England, 8; Dumfries, 1; other parts of Scotland, 4; also loaded with Patent Mist or Manure, for Bridlington, 1; for Dundee, 1.



# THE POLITICAL COMPANION

TO

## THE FARMER'S MAGAZINE.

[Our object in appending a Political Companion to the Farmer's Magazine, was to put our readers in possession of the opinions of the most talented journalists of the day, on both sides of any important question which might come under discussion. We trust, therefore, that in giving insertion to articles, which seem opposed to the agricultural interest, we shall not be considered as acquiescing in the doctrines therein advanced, our sole purpose being to enable our readers to estimate the truth or detect the fallacies of the arguments advanced.—ED. FARMER'S MAGAZINE.]

### POOR LAWS—IRELAND.

(From the Chronicle.)

We lay before our readers a portion of a most important document—the “Third Report of the Commissioners for inquiring into the condition of the poorer classes in Ireland.”

The state of society in Ireland is so different from that in England and Scotland, that measures applicable to the latter may not always be suitable to the former. This is particularly the case with respect to the poor. The great body of the labouring class in Ireland look to agricultural employment alone for support, and the supply greatly exceeds the demand. In Great Britain the agricultural families constitute little more than one-fourth of the population. The cultivated land of Great Britain amounts to about 34,250,000 acres, and that of Ireland to about 14,600,000 acres; but in 1831 there were 1,131,715 agricultural labourers in Ireland, while there were only 1,055,982 in Britain, so that there are five agricultural labourers in Ireland for every two for the same quantity of land in Great Britain. The excess of the supply of labour beyond the demand accounts for the want of employment and the dreadful distress of the population.

The number of persons in Ireland out of work and in distress during thirty weeks of the year is estimated at 535,000, and these have 1,800,000 persons dependent on them, making in the whole 2,385,000, a frightful amount of pauperism.

A disease of such enormous magnitude obviously requires a peculiar treatment. In England the workhouse is the asylum for the aged and impotent poor, and it is not contemplated that the able-bodied poor should remain in it. From the reluctance of the latter to submit to the restraints of the workhouse, it is used as a means of putting them on their own resources, and forcing them to find out employment. But in Ireland there is no employment to be found; and were it possible to build workhouses for all who are destitute, and to induce the able-bodied to enter them, it would be impossible in the present state of the country to provide for such a multitude. On this point the Report states:—

“The expense of erecting and fitting up the necessary buildings would come to about 4,000,000*l.*, and allowing for the maintenance of each person, 2½*d.* only a day, that being the expense of the Mendicity Establishment of Dublin, and at other similar establishments in Ireland, the cost of supporting the whole 2,385,000 for thirty weeks annually would be something more than 5,000,000*l.* a year, whereas the gross rental of Ireland (exclusive of towns) is estimated at less than 10,000,000*l.* a year; the net income of the

landlords at less than 6,000,000*l.*; and the public revenue is only about 4,000,000*l.*”

The workhouse system of England not being suited to Ireland, the question is—how are the poor to be provided for?

Hitherto the course has been comparatively easy. But it is not so easy to devise satisfactory remedies for the evil.

Before we proceed to notice the suggestions of the Commissioners respecting the able-bodied poor, we shall advert to their proposals for the relief of the aged, impotent, and diseased.

“The institutions existing in Ireland (they say) for the relief of the poor, are houses of industry, infirmaries, fever hospitals, lunatic asylums, and dispensaries; the establishment of these, except as to lunatic asylums, is not compulsory, but dependent upon private subscriptions, or the will of grand juries; there are but nine houses of industry in the whole country; while the provision made for the sick poor, in some places, is extensive, it is in other places utterly inadequate; and there is no general provision made for the aged, the impotent, or the destitute.”

They propose that a legal provision should be made for the relief and support of incurable as well as curable lunatics, idiots, epileptic persons, cripples, deaf and dumb, and blind poor, and all who labour under permanent bodily infirmities, to be afforded within the walls of public institutions; also for the relief of the sick poor in hospitals, &c.; also for the purpose of emigration, for the support of penitentiaries, to which vagrants may be sent, and of deserted children; and also for the relief of aged and infirm persons, orphans, helpless widows with young children, the families of sick persons and casual destitution. They recommend the appointment of poor-law commissioners as in England, and assistant commissioners: that Ireland be divided into relief districts, and surveyed and valued; that there shall be a local board of guardians for each district, elected by the rate-payers; and that the board of guardians have the direction of all institutions for the relief of the poor supported by the local rate; and that the commissioners shall be authorised to assess a national rate upon the whole of Ireland, and to require the board of guardians of each district to raise a proportional share thereof.

With respect to emigration, it is proposed that one-half of the expense should be borne by the general funds of the empire, and the other half defrayed partly by the national rate, and partly by the owners of land from which the emigrants remove, or from which they may have been ejected within the preceding twelve months, the lessors who may have sublet to emigrants to be considered the landlords.

With respect to vagrancy, it is recommended that any person convicted of it, be transported for seven years; that penitentiaries be established, to which vagrants, when taken up, shall be sent.

With respect to the relief of the aged and infirm, orphans, widows, and children, and destitute persons in general, there is a difference of opinion among the commissioners. Some think the funds should be partly provided by a national rate and partly by private associations, which should be authorised to establish mendicity houses, &c., and to administer relief to the indigent at their own dwellings; while others think the whole of the funds should be provided by the public—one portion by a national rate and another by a local rate, and administered as in England by the board of guardians of each district.

The commissioners look to emigration and internal improvements as resources for the able-bodied poor. They recommend the appointment of a board with powers to carry into effect a comprehensive system of national improvement. There are 3,000,000 Irish or 5,000,000 English acres of reclaimable waste lands. The board of improvement to be armed with the most extensive powers, to meet the difficulties from the embarrassed state of property, &c., to appoint local commissioners. With respect to lands already in cultivation, as there is throughout Ireland an urgent necessity for drainage, the commissioners recommend that the provisions of Mr. More O'Ferrall's act, and the English sewer's act, may be modified, incorporated, and extended, so as to cause all lands to be kept duly drained and fenced under the direction of a competent authority. As the sum required may be such that it could not be raised at once by any rate either on landlords or occupiers, the commissioners recommend that the board may be authorised to advance the sum at once, making the rate redeemable by the proprietor; and if he omit to redeem, saleable by the board.

The commissioners recommend a number of improvements, which in the aggregate may be of importance. But space will not allow us to enter into the various details.

A great part of the resources on which the commissioners calculate are to be derived from the improvement of the waste lands, and the rates for the improvement of lands already under cultivation. With respect to the poor, properly so called, it is recommended that the board of guardians of each district shall frame an estimate of the sums required within the year, that the estimate shall be transmitted to the commissioners, who may vary or affirm it, and add to it the portion of the national rate which the district ought to bear; the commissioners shall then order the boards of guardians to levy a rate, one-third to be charged on the occupier of each house or tenement of land above the value of *5l.* in respect of the occupation, and the remaining two-thirds in respect of the beneficial interest therein; the whole to be payable, in the first instance, by the occupier, who shall be reprimed as to the two-thirds for the beneficial interests. Tenants at will to deduct the whole rate from the immediate landlord.

A rather bold course is recommended with respect to the charge for the poor. The gross land rental of Ireland amounts to less than 10,000,000*l.* Expenses and losses are taken at 10 per cent., and annuities and the interest of charges payable out of land at 3,000,000*l.*, leaving a net income of 6,000,000*l.* It is recommended that the incumbent should bear a perpetual share of the burden, the security of his investment being bound up with the productive mass of the land and the well-being of the inhabitants, and that a person paying any annual charge, shall be au-

thorised to deduct the same sum in the pound thereout that he pays to the poor-rate.

It is certain that means do not exist in Ireland at present for such a system of relief as exists in England. But the suppression of vagrancy, and the subjecting property to various charges for the poor, will in time restore Ireland to a more healthy state. It is well observed by the commissioners—

“That it is only of late years, and by slow degrees, that the English constitution has been allowed to diffuse itself through the mass of the people of Ireland. For nearly the whole of the last century they were governed by a code, the policy of which was to keep in poverty and ignorance, and which was perfect for its purpose.”

Without the able-bodied are removed or employed, there can be no peace in Ireland; and without peace, capital will never be embarked in Ireland. There is, as the commissioners observe, “a rising spirit of improvement; but it must be stimulated by sound legislation, or it cannot speedily relieve the country from the lingering effects of the evil system of former times.”

## THE FUNDHOLDERS.

(From the *Hereford Times*.)

Many persons, agriculturists in particular, believe that the fundholders do not bear a fair proportion of the burthen of taxation, and that they ought to be subjected to a direct tax; nay, there are those who would wipe out as with a sponge all national obligation to pay the fundholder both principal and interest, with as much *sans froid*, as a boy would expunge scribbling from his slate. This belief is founded upon a most erroneous opinion of the actual circumstances of funded property; for any additional indirect or direct tax upon the fundholder, which should not also be imposed upon any other species of property, would be as unjust, as would be the refusal to pay a just debt.

We are well aware that a considerably less sum than the nominal debt was really advanced as a loan to the nation; the system of bonuses, premiums, &c. was little better than a system of plunder. We are also aware that the real value of money in 1835 is much higher than it was in 1800, and that it will take a much larger amount of produce to discharge a debt of twenty shillings in 1835, than it would have taken in 1800. In reference to the first fact, it must be borne in mind that the funds are *transferable* property; and that the *ownerships* have changed hands, hundreds of times since the date of the loans. Therefore, to visit the present proprietors with any punishment for the sins of the governments of former days, and of the individual lenders, who in those days reaped a golden harvest, would be equally as cruel and unjust, as to punish the present multitude of proprietors of those ecclesiastical lands or other property, which were filched by the plunderers of the days of Henry VIII. and his immediate successors. Consequently, all such filching projects must be abandoned as visionary, at least, if the national character for honesty is not to be abandoned. In reference to the difference in the value of money at the present time, and the times in which the loans were made, the fact seems to be forgotten, that the income derivable from funded property has been repeatedly reduced; indeed, to us it appears unjust, to force the fundholder to take a reduced interest, unless every mortgagee be forced also; and a moment's reflection will draw an appalling picture of national confusion and misery, which would be con-

sequent on any national scheme of "equitable adjustment." But who are the fundholders? Another popular error is that the funds are in the hands of the Croesuses—the Rothschilds, the Barings, &c.; the truth, however, is widely at variance with this supposition. We learn from Parliamentary Returns, that the twenty-eight millions of interest on the public debt is divided among nearly THREE HUNDRED THOUSAND persons! Here is the return—

Not exceeding	£5 per annum	83,609 persons.
...	10	42,227
....	50	97,307
.....	100	26,306
.....	200	15,209
.....	300	4,912
.....	500	3,077
.....	1000	1,555
.....	2000	450

Now, who are these thousands of annuitants? Widows, orphans, the aged, and the infirm, almost all living upon small annuities in this country,—all their small properties have been earned by years of industry, and then vested in the hands of the nation, on the faith of that nation's integrity! "Think," says a popular writer, "of the consequence of extinguishing, or even abridging these petty incomes! What impoverishment and destitution it would create among widows, orphans, the aged, and infirm. How many funds destined for charitable uses, or for mutual assurance against misfortunes, and amassed with difficulty out of the earnings of the industrious, would be violated?" But we do not anticipate the perpetration of such an amount of crime, and, certainly, not by the hand of the British nation. Let us all sail in the same boat; tax property if you please, but do not tax only *one* species, more especially the property of the Savings' Bank Depository of Friendly Societies, of widows and orphans—in one word, do not legally filch the produce of by-gone industry.

## THE AGRICULTURAL AND COMMERCIAL BANK.

(From the Limerick Times.)

The peculiar opposition—an opposition, alike unnatural and unnatural, which the Agricultural and Commercial Bank met with at its outset, instead of retarding its progress, has, on the contrary, but accelerated its operations and expanded its usefulness even beyond the most sanguine expectations of its friends and founders; and, as it was designed to unite Irishmen of all classes and all creeds for the common good and general happiness of their country, so it has experienced the patriotic sympathy, and acquired the popular and moral strength of Ireland for the attainment of ends so necessary for the national interest. Not only the Peerage, but the Roman Catholic Prelates and Clergy, and the leading men of various shades of party, are amongst its firmest and most vivid supporters; and it has recently obtained the aid of the most affluent and influential men of that meritorious class of the community denominated Friends, who have heart, and hand, bound up their capital and character with its maintenance. The Agricultural and Commercial Bank has now twenty-six branches at work, diffusing the means of promoting industry—enlarging trade—encouraging safe speculation—and affording commercial facilities to large masses of the agricultural and trading population, who, until this Institution was put into action, never knew the value—enjoyed the convenience—felt the comfort—or could appreciate

the advantages of a widely spread and cheering system of banking.—Yes,—and we state the fact without desiring either to disparage or discountenance any other establishment—why should we? There is plenty of room and work enough for them all—and sincerely do we wish that they would all pull together—as well for their own ease as the public convenience; but we must nevertheless, from a sense of justice observe, that, until the liberal policy—sound system—and, above all, the truly national and patriotic principle of the founders of this Bank were brought out and practically displayed, the great bulk of the Irish people never experienced the full benefits of banking—and it, moreover, opened to every man in the country the simple, secure, and accessible means of elevating his condition. Who ever heard in this country the humble mechanic, the laborious farmer, the small shop-keeper, and scanty trader, proudly say that he was a holder of Bank Stock; aye, a Bank Proprietor! until the establishment of the Agricultural and Commercial Bank? And, let us ask, are there no moral influences associated with these things? Yes, indeed, there are,—and upon the wide foundations which have been laid by the good and honourable men who first planned this great work, myriads of Irishmen will yet build up fortunes and independence—and perpetuate the happiness of their families. Within the last week the wealthy families of Garratt, Pim, Beal, Danes, Ridgeway, and a host of rich members of the Society of Friends, have joined the Bank.

## STATE OF AGRICULTURE.

(From the Liverpool Times.)

The agricultural committees of both houses of Parliament have been sitting for some time, and examining witnesses from all parts of the kingdom, though from the manner in which they are constituted, the evidence taken has not been published. Amongst the witnesses examined have been Mr. Sandars, Mr. David Hodgson, and Mr. Scott, of Liverpool, and we have reason to believe that both Mr. Sandars, and Mr. Hodgson's evidence are considered very valuable by the committee. The members will probably sit for some months longer, though the evidence already taken is pretty decisive as to most of the questions of any importance brought or likely to be brought before them. If we are not much misinformed, the gentlemen with one idea, and that idea a wrong one about the currency, have so far gained nothing by the inquiry. They have succeeded in showing that the monetary revolution produced by Peel's bill was a very ruinous one, but that is what every knew before, and they have also succeeded in showing that the landed interest suffered as much as any other interest from the change, which no man in his senses will deny; but they have not shown that a second monetary revolution will remedy the evils of the first, or that to unsettle the currency is even a probable means of benefiting any one. In short, they have failed in every thing that they attempted to prove, except in those matters which were freely admitted without any proof. They are now in a glorious minority in the committees of both Houses, and the public may rely on it, that whatever change may result from the report of either committee, no change in the currency will be recommended by either. Another point already pretty clearly established is, that the amount and extent of agricultural distress has been greatly exaggerated. It has been shown that, except as far as wheat is concerned, there is no

pretence to talk of distress at all, since wool, meal, hay, straw, barley, oats, milk, cheese, and butter, are all selling at very good prices throughout the country. As for wheat, it is also rising in price, and there is every reason to believe that now that wheat growers have begun to understand the cause of their own distress, which is that they have produced more than the market required, or the demand could take off, this will also be set to rights. The most intelligent witnesses examined before the House expressed a very strong opinion that the growth of wheat had decreased to such a point as to render a fair and remunerating price all but certain during the present year. More than this the landlords and farmers cannot reasonably ask.—We understand that there is a very strong feeling in favour of a fixed duty on foreign grain, in the place of the present graduated and fluctuating scale, amongst several members of the committee, though it is not very likely that any change will be made at present.

#### SIR R. PEEL.—WHAT ARE THE CHANCES OF THE TORIES?

(From the *Old Bell's Messenger*.)

Another cause is, that the agricultural interest begin to regard him as adverse to their views, and as retaining a kind of paternal preference for the interests of the commercial and manufacturing classes, as distinguished from those of the farmer and landlord. Here, we think the feeling against him is unjustly directed; he possesses a very large landed property, and therefore must have a common interest with the other great landlords of the kingdom. Be the fact how it may, there can be no doubt that this opinion of his being adverse to the agricultural interest has very greatly damaged him in public estimation, and has concurred, amongst other causes, to diminish the numerical strength of his party.

Under these circumstances we shall find no difficulty in giving a very brief answer to the question, What are the chances of the Tories? Briefly, we say, none at all, unless, indeed, they make common cause with the farmers and landlords.

AGRICULTURE.—The following is an extract from a speech of Mr. Grey at the dinner which took place at the late meeting of the Union Agricultural Society.

Mr. Grey rose and said he was not sure if he was just now in his proper position, but as the Marquis of Tweeddale was not present, and as he had the honour to sit opposite to his Lordship (the Chairman) he understood that it was his duty to rise, but of this he was not certain, and was perhaps stepping out of the way, and if so the company, he trusted, would excuse him. He did not mean to say that he was overpowered, as is usual with persons who have their healths drunk and are unable to return thanks; but he would say, what he considered best became him, that he begged to return his sincere thanks for the honour that had been done him. He could not have experienced a greater pleasure than to have his health drunk by the present company, among whom he discovered the faces of many who had so long been his kind neighbours and friends, and who, though he could not now call them his neighbours he might still number amongst his friends. The show of stock which had taken place that day was such, as had been already mentioned, as could not have been exhibited in any other part of the world. There

was another source of gratification which he had enjoyed on the present occasion, and that was the improvement which had taken place in the quality of the stock. He said that he had lately had the honour of being examined before the Committee of the House of Lords on Agricultural Distress, and they, knowing that he had some acquaintance with the state of agriculture on the north side of the Tweed, asked him as to the state of this country, and he stated that the depression in Scotland was not so great as in the other parts of the empire. They asked how that had happened? He answered, it was not, perhaps, for him to say, but he conjectured, and he had heard it stated, that it might arise from the superior sagacity of his friends on the Scottish side of the Border, who had the shrewdness to establish and retain a superior system of banking, by which they were enabled to prosecute and carry out those improvements which they would not otherwise have been able to avail themselves of. He said also that they had adopted a better rotation of cropping, for while the corn-growing districts in England were suffering severely, the agriculturists in the more northern parts of the kingdom had by a mixed mode of cultivation, by combining grazing with tillage, escaped a portion of the distress which prevailed elsewhere. He begged again to express his most sincere thanks for the honour done him, and sat down amidst great cheering.

#### TO THE EDITOR OF THE MARK LANE EXPRESS.

In none of the English Agricultural Reports is the growth of Flax alluded to, from which I conclude that it either has not claimed the attention of the English farmer, or is not deemed worth his attention. This, however, is not the case in Ireland, where a very large breadth of land has been displaced from Wheat, and sown with Flax, which is found to pay a great deal better. My Correspondents say, "the quantity of land under Flax in the northern counties has in a few years increased from 30,000 to 100,000 acres, and next year will be at least 120,000, having paid the farmer better than any other produce. This Flax is in great favour with the English and Scotch spinners, and is to become a large trade." It may be supposed that an article which pays the *Irish Farmer* better than Wheat, would answer a similar good purpose with the *English Farmer*, and at the same time lessen the redundancy of the latter which has so depressed prices,

I remain, &c.,

W. C.

#### AN EXAMPLE NOT WORTHY OF IMITATION.

As in every instance which falls within our knowledge we delight in giving publicity to acts of kindness and consideration on the part of landlords towards their *tenants*, so do we deem it our duty to make known the names of those who are so "wicked," as Mr. Cayley would call it, as to be guilty of such conduct as is related in the subjoined passage from the *Brighton Guardian*. We abstain from farther observations at present, because we entertain some doubt of the correctness of the statement, and sincerely hope it will be contradicted.

"The Earl of ASHBURNHAM and Lady WEBSTER have severally warned their tenants to quit, or pay a heavy advance of rent, in consequence of the reduction of their poor-rates."

## TURF INTELLIGENCE.

It is not long since we introduced to the notice of our readers an occurrence which received the suspiciously mysterious appellation of "The Delicate Investigation in Ireland;" a case in which well-founded doubts arose as to all being *on the square*, while the sequel tended very much to justify previous suspicion, inasmuch as Mr. Ruthven refused to submit to that fair and honourable test proposed by the Irish Jockey Club, thus affording the strongest reason to believe that Caroline and Leinster, were merely *soubriquets* for Becassine and Old Bill; that they ran and won their races at a year younger than their real age, and consequently sought to obtain the prize surreptitiously. Mr. Osbaldeston appeared prominently, if not directly, in the affair; and we expressed our regret at the time that this gentleman (an old acquaintance) should be brought before the public in a form so unsightly. Prior to this period, something unpleasant had arisen at the last Heaton Park Races, where it was supposed Mr. Osbaldeston's horse (Rush) had been restrained from winning one race in order to procure bets against him in a second, which, however, he won with ease; in this instance manifesting powers much superior to those which he had previously exhibited. Thus Lord George Bentinck lost a bet to Mr. Osbaldeston; and on his Lordship being called on to pay at the Newmarket Craven Meeting he made some very pointed allusions to "the delicate investigation," and expressed his unqualified conviction of *unfair play* in the Rush transaction at Heaton Park. In consequence, a hostile meeting took place between the parties just mentioned at Wormwood Scrubs, on Wednesday, April, 13; shots were ineffectively exchanged, when the seconds (like men of good sense) would allow the business to proceed no farther. However, the duel has not dissipated the cloud which envelopes either the one or the other transaction.

Since the publication of our preceding Number, two highly important Meetings have taken place, namely, the Craven and First Spring Meeting at Newmarket; they are important not merely on account of the acknowledged celebrity of the place, but also as tending to throw that sort of light on the three great ensuing events in the racing world, the Derby, the Oaks, and the Doncaster St. Leger, so as to enable the book men to speculate more confidently. The Craven Meeting exhibited four of the Derby horses as winners; as will be seen by the appended list. Brother to Nell Gwynne won his race with great ease; that he is a good horse no person can doubt, but in this case he had "nothing to beat."

Muezzin and Taishteer won their races, and nothing more could be expected; while Ebberston, hitherto in the dark, came out in very good form, and obtained success very cleverly—so cleverly indeed that though he had not before appeared in the betting for the Derby, he now entered the list and was placed in an exalted position, which he has since steadily maintained. Generally speaking, however, the horses which came out at this meeting were below the general average sample of Newmarket; and the running, on the whole, less interesting than usual.

At the First Spring Meeting several excellent and highly interesting races were run, and much heavy betting took place on several of the events, particularly on the Two Thousand Guineas Stakes.

If, however, the events of the Craven Meeting threw but little light on the Derby or the Oaks, the proceedings of the First Spring Meeting have added only triflingly to our stock of knowledge of those prospective and highly important stakes.

Brother to Nell Gwynne, who some time ago displaced The Mummy from his exalted station on the betting list for the Derby, had continued the uniform favourite for the Two Thousand Guineas Stake, and on the previous evening, as well as at the moment of starting, the odds were decidedly in his favour; at the same time, Lord Lichfield's Elis, who had excited but little attention previously, found staunch supporters at a price only a mere trifle below the favourite: the race proved how accurately the powers of these two horses had been estimated. The odds, prior to starting, stood thus:—

5 to 4 agst Brother	10 to 1 agst Calmuc
7 — 4 — Elis	12 — 1 — Whaley
6 — 1 — Muezzin	20 — 1 — Ld. Berner's colt.

Nothing is more unpleasant (or indeed more unnecessary) than false starts; yet, so it happened, that the competitors for this great stake did not get away till after several recalls. At length, off they went: Elis, determined to try the stamina of his competitors, took the lead at the very top of his rate, closely followed by the Lamplighter colt and Brother to Nell Gwynne, the other three well up, and thus they came to the end of the T. Y. C. where the latter found the pace too much for them. At the bushes the Lamplighter colt lost ground, while Brother to Nell Gwynne endeavoured to reach Elis, who continued to lead at a tremendous pace. At length, Brother to Nell Gwynne collared his antagonist, the latter looking like a winner. Nothing could be finer or more interesting, than the admirably contested struggle up the rise, which was at length so finely finished that neither the one jockey nor the other

was conscious of the manner in which the race had terminated. It was decided in favour of Brother to Nell Gwynne.

The *false starts* again. The circumstance of *several false starts* taking place where there are only six competitors, and all of them above two years old, is an unpardonable circumstance; if it arise from incapacity in the starter, it is a manifest proof that he ought to be displaced. We are very well aware that jockeys are a very cunning, wary class of beings, ever ready to take advantage of whatever may have a tendency to promote the object they have in view, at the expense of their rivals or competitors: thus, when a jock, mounted upon an easy-tempered sluggish horse, is aware that one of his opponents has to manage a nag of a different disposition, but possessing superior powers;—a fretful horse, for instance, which possesses superior speed; he will be anxious for *several false starts*, well aware that the horse he most dreads thus becomes beaten before they are fairly away: we have witnessed much of this fraudulent manœuvring, which, however, ought to be prevented by the starter, as his authority is almost absolute, if he has capacity sufficient to exercise it aright. On no occasion, therefore, ought more than one false start to be allowed, however numerous the field; unless, as we have repeatedly before observed, in case of two-year olds. Amidst the rage for reform, we would propose a reformation of the matters of which we have been speaking: we would make it a *sine quâ non* that the horses should go at the second start, if not at the first (unless in case of two-year olds); another indispensable condition should be, to disqualify any jockey from riding who carried a betting book, as well as to make the exhibition of such a suspicious emblem, an incontrovertible plea for the suspension or discharge of either Judge or Clerk of the Course.

Next to the Two Thousand Guineas Stake, the Portland Handicap formed the most prominent object of attraction; while it may be justly remarked, that, if the powers of the candidates for the former had been accurately estimated, particularly in regard to the two favorites, the book men had not been equally fortunate in their calculation of the nags which appeared for the latter. However, this race confirmed what we have before asserted, that though Pelops possesses speed, no dependence can be placed upon him: he cannot bear to be collared; he must have it all his own way, or he will do nothing; the moment he is called upon, he shuts up.

If we are to form an opinion from the public displays which have taken place, as well as from what has been tolerably well ascertained, there is no reason to expect another Plenipo, or a second Queen of Trumps, amongst the nominations for the three great stakes, the Derby, the Oaks, and the St. Leger, or indeed amongst the three-year olds, some of whom do not appear for the important prizes we have just mentioned. We speak particularly as to the three-year olds; because, in the first place, the leading stakes, not merely at Epsom and Doncaster, but

generally throughout the kingdom, have been formed expressly for colts and fillies which have attained their third year; and secondly, because at an earlier period it is difficult to form an accurate opinion of the future powers or character of the animal: for instance, Moss Rose, (sister to Velocipede) proved herself a first-rate two-year old, but was not worth a button afterwards. Sir George Pigot's Chester Billy ran away from all his competitors when a two-year old, and there ended his short successful career; he scarcely won a race afterwards, and indeed, could seldom be induced to try. However, as far as relates to such very superior racers as those which we have mentioned above, they may be said to make their appearance only once in an age; when, like brilliant comets, they shine with refulgent lustre, and thus exhibit the perfection of their species.

By the time the present number reaches our distant readers, Chester Races will have commenced, and, we trust, a few days of fine dry weather will precede or usher in this highly respectable and elegant Meeting, or the odds will be much in favour of those powerful nags which can get well through "a deep country," as the Course, from the quantity of rain which has deluged the country during the months of March and April cannot be otherwise than heavy, particularly that part of it which forms the margin of the river Dee. We consider Chester Race Course as the prettiest and the most picturesque in the kingdom; very grateful, on the whole, to the feet of the racer—a circumstance, be it recollected, not a little in its favour. Jupiter and Red Rover are the decided favourites for the Chester Cup; the former having the call in the town of Manchester—from the circumstance, perhaps, of his owner (Mr. T. Johnson) residing in that wonderful and densely-populated emporium. Sir John Gerard's Billings has crept much into favour of late; he went well through our late long and dreary winter, and is in as fine condition as possible.

The Newmarket Second Spring Meeting commences on the 3rd inst., and will therefore take place the same week as Chester: this, however, amounts to nothing, as the distance of the places, and the opposite character of the Meetings, entirely prevents any injurious influence being exercised by the one upon the other.

While the Chester Trade Cup has excited much attention amongst provincial book-men, it seems strange that little or nothing has been transacted on the similar prize at Liverpool. General Chasse is the favourite in public estimation, but not with us. He has proved himself a very good racer, he has been eminently successful upon the Liverpool Course, it has formed the scene or the theatre of his unassailed glory, and he will therefore go more willingly over it than over any other ground; yet, when it is duly considered that the General, like his Dutch namesake, has seen much service, that after his splendid achievements last year at Liverpool, he ran very unsuccessfully at Doncaster—when these influential circumstances are gravely taken into consideration, the odds must be greatly against him on the ensuing occasion. That Queen of Trumps did not appear in the list for the Liverpool Cup would seem strange; but we have little doubt there was a very satisfactory reason for the omission: Was she, or is she, *all right before?*

# THE FARMER'S MAGAZINE.

JUNE, 1836.

No. 6.]

[Vol. IV.]

## THE PLATE.

We are indebted to the Proprietors of "The Sportsman" for the Plate prefixed to this number, of which an able description will be found at page 427.

### MODE AND EFFECT OF EMPLOYING BONE MANURE.

BY C. W. JOHNSON.

I proceed to notice the effects and modes of applying bones as a fertilizer, either whole, broken, or in the state of powder.

The Doncaster Agricultural Association long since paid considerable attention to the use of bones as a manure, and they have made a very valuable report, to which I have before alluded, of the result of their enquiries, in which they say:—

"The returns received by the association, satisfactorily establish the great value of bones as a manure; our correspondents, with only two exceptions, all concur in stating them to be a highly valuable manure, and on light soils superior to farm-yard dung, and other manures.

"In copying the language of one of them in reference to dry sandy soils, we express the opinions repeated in a far greater number.

"I consider bone tillage one of the most useful manures, which has ever been discovered for the farmer's benefit. The lightness of carriage—its suitability for the drill, and its general fertilizing properties, render it peculiarly valuable in those parts where distance from towns renders it impossible to procure manures of a heavier and more bulky description."

For as stated by another farmer, "the carting of six, eight, or ten loads per acre, is no trifling expense. The use of bones diminishes labour at a season of the year when time is of the first importance; for one waggon load, or 120 bushels of small drill bone dust, is equal to forty or fifty loads of fold manure. Upon very thin sand land, its value is not to be estimated, it not only is found to benefit the particular crop to which it is applied, but extends through the whole course of crops."

The report adds, that bones have been found highly beneficial on the limestone soils, near Doncaster; on peaty soils, and on light loams; but on heavy soils, and on clay, they produce no benefit.

The mode of applying them is, either sowing by broadcast, or by the drill, either by themselves, or previously mixed with earth and fermented. Bones which have been thus fermented, are decidedly superior to those which have not done so.

The quantity applied per acre is about twenty-five bushels of bone dust, and forty bushels of large broken bones. The dust is best for immediate profit; the broken half-inch bones for more continued improvement. Mr. Birks says, "if I were to till for early profit, I would use bones powdered as small as saw-dust. If I wished to keep my land in good heart, I would use principally half-inch bones, and in breaking these, I should prefer some remaining considerably larger."

The reason for this is very obvious; the larger

the pieces of bone, the more gradually will a given bulk dissolve in the soil.

Such is the result of the application of bones in Yorkshire. In Middlesex, the practice is scarcely different, as will be seen by the answers to some questions I received from a very intelligent correspondent, Mr. John Rayner, of Uxbridge, in November, 1833.

I. On what description of soil is bone dust employed with the greatest advantage? On light dry soils.

II. The quantity per acre? From twenty to twenty-five bushels.

III. How long has its good effects been observed to last? This question requires a more lengthened reply. The good effects of bones as a manure, have been acknowledged by many agriculturists for a number years; but as farmers, generally speaking, are men who are not fond of trouble, and as there was great difficulty in breaking bones in sufficiently small pieces, to prevent dogs, &c. from running away with them, we can only in a few instances trace out their good effect. There is a farmer in the neighbourhood of Watford, who dressed his land with *whole bones*, some twenty years since, (at a period when you could obtain them from London for fetching) and he declares, that to this day, to use his own expression, "the land has never forgotten them." Although the first season or so he found but little benefit; this I attribute to the bones being so large, the ground could not so soon act upon them. The *bone dust* is supposed to last but one season; the larger sizes of half-inch and inch, are supposed two or three years, and are always seen to most advantage after the first season.

IV. What is the expense? The dust is 2s 3d per bushel—the half-inch, 2s—the inch, 1s 9d.

V. What is the season, and on what crops is it generally applied? The turnip season—Bone manure shows itself to more advantage on this crop than on any other—it is drilled with a drill made on purpose, with the turnip seed; the period is from May to July. Bone dust is also used with great advantage on grass lands sown broadcast.

In the valuable and long continued experiments of Mr. Robert Turner, of Tring, in Hertfordshire, the use of bone manure has been most decidedly successful.

The soil on which these experiments were made, hitherto a common, producing only farze, is sandy, with a substrata of clay, and then chalk. He began the use of bone manure in 1831, on *this land*, and has continued its employment for the last four years on a very bold scale, and with unvaried success. The quantity generally applied was from 24 to 30 bushels per acre, of the description of half-inch and dust, and the bones were invariably applied to the turnip crop.

The bones are drilled with the seed, at a distance of 18 inches; and the turnips are always horse-hoed.

The year 1831 was a very good season for this crop generally. The turnips manured with dust, like most others in the district, were very luxuriant. About 2,000 bushels of bone manure being this year employed by Mr. Turner.

In 1832, the turnips were in general a very bad plant, the fly committing general devastation. Many cultivators in the neighbourhood of Tring, unsuccessfully sowed four or five times.

On the turnip land of Mr. Turner, 74 acres were manured with bones. The effect, with the exception of the very last sown four acres, was again most excellent; the crop being very heavy, and that too on land now first cultivated; and there was in no case any necessity to repeat the sowing. The turnips were a much better crop than in 1831.

In 1833, the turnip crops in the neighbourhood of Tring, were a very partial crop.

On the farm of Mr. Turner, about 50 acres were manured with bones. The effect, with the exception of some of the last sown turnips, was very satisfactory; the crop very heavy.

These experiments the cultivator will deem of the very first importance; the soil was not manured with any other fertilizer, except bones; and in drilling, every now and then, for the drill's breadth, the bones were omitted.

On these breadths of land not boned, the failure of the turnips was general and complete: they vegetated it is true, and came up, but they were wretchedly small and of no use whatever.

The turnips being fed off, and the sheep folded on the soil, without any distinction being made between boned and unboned land, the comparative experiments upon the succeeding crop were rendered uncertain.

In 1834, Mr. Turner boned about eighty acres of turnips with the best success, and with the exception of some destroyed by the wire-worm, had a very excellent crop.

In 1835, on nearly an equal extent of land, notwithstanding the extreme dryness of the season, Mr. Turner had again on his turnips manured with bones, a very excellent plant, and never did this crop promise better than this season, on the lands of Tring.

The caterpillars which devastated the chalk districts of England, did not however omit this parish, their ravages were dreadful and complete.

And had not Mr. Turner made a most successful attack upon them by a detachment of 650 ducks, procured especially for this purpose, who devoured the black caterpillars with great voracity, his turnip crop would have been utterly destroyed. By their industry, however, twenty-five acres of turnips were cleared of the vermin, and saved from destruction.

At another farm, held by the same gentleman, at Ellesboro, by the assistance of the same ducks, who were transported there in carts, for that express purpose, he saved about eight or nine acres of turnips from the caterpillars: so that there is no doubt of the importance of the services rendered by these birds. He informs me that he found it necessary to give them a quantity of corn while they were thus employed in clearing the turnips.

The soil of the Ellesboro farm, on which the bones were tried for the first time in 1835, with complete success, is called White Land, and was in a very poor state of cultivation. The experiment was entirely successful, and the turnips promised to be very good indeed; those that were saved from the caterpillars, being for the season very excellent.

This soil, called white by the farmers, is probably a mixture of clay and sand; it becomes very dry

and loose in dry weather, but is described as "sticky" in wet periods.

Mr. Turner possesses a capital bone mill, worked by four horses, in which he crushes all the bones employed in his farm. He pays for the coarse bones 2*l.* 15*s.* per ton, and fetches them 15 miles: a ton of bones producing of half-inch and dust about 30 to 34 bushels of bone manure.

The cost of the mill, with the substantial shed which covers the machinery, horse-path, &c. was about 300*l.*, and it has been rendered available by Mr. Turner for several other purposes, such as chaff-cutting, thrashing, &c., by which the aggregate expense is materially lessened, and a very considerable annual saving effected.

For the last two years Mr. Turner has drilled with his crushed bones, an equal quantity per acre, of sheep dung, collected for the express purpose, at an expense of 2½*d.* per bushel, paid to the collectors: this he prepares in the winter, by laying the bone-dust in alternate layers with the sheep dung, and suffering them to remain fermenting some months until the turnip sowing. By this plan, by the fermentation of the mass, the two manures are thoroughly incorporated; and he considers that 35 bushels of the mixture, are fully equal in effect to 25 bushels of the bones. So that, allowing 3*s.* 6*d.* per acre for the expense of collecting the sheep dung, there will be a clear saving of 12*s.* 6*d.* per acre in bones, valuing these at 2*s.* per bushel.

The mixed bones and sheep dung is invariably drilled in with the turnip seed.

The practical farmer will hardly need any better testimony of the important value of crushed bones, than these extensive and long continued experiments of Mr. Turner.

They are not open to the common objection to experimental attempts, that they are carried on in far too limited a manner, and for much too short a period, to enable the cultivator to form from them a satisfactory conclusion; for he has annually manured with them scores of acres of turnip land, and that too in seasons which have afforded him, from the adverse prices of agricultural produce, but little encouragement to lay out money on any fertilizer of a doubtful value.

I earnestly, therefore, commend these important experiments to the attention of the practical farmer, as being fraught with information of the most interesting nature, especially to those who have to contend with the poor, light, upland soils: lands which are now with difficulty retained in cultivation.

In the year 1831, on a thin, chalky soil, in the neighbourhood of Amesbury, in Wiltshire, Mr. Devenish employed bone manure of the quality called "fine," drilled at the rate of twenty-four bushels per acre, with the turnip seed, on a portion of a field of about ten acres.

Part of the same field was manured with spit dung, at the rate of about 20 tons per acre, and another portion of the same field remained without any manure.

The Swedish turnips produced on the boned soil, were of four times the value of those grown upon the land manured with spit manure. Those grown on the soil without any manure, were deemed scarcely worth hoeing.

Bone manure presents to the cottager or cultivator of small plots of poor ground, as under the allotment system, a ready and cheap mode of permanently improving his land.

It would be well, perhaps, in some instances, if the managers under such an excellent system, were to apply the manure for the holder, and that too, if



they even thought it necessary in consequence, to add to the amount of the rent.

As a manure for plantations of trees, I am not aware of any experiments with bones: I should however strongly recommend their use for ornamental plots, but in a roughly broken state. A considerable quantity of phosphate of lime is contained in all timber trees. There is no manure of a mixed animal and vegetable nature, which remains so long in the soil as bones.

As a manure for flower roots, the turnings and chippings of bones the refuse of the Birmingham cutlers, have long been employed with the best results by my friend Maund, of Bromsgrove, the talented author of "The Botanic Garden."

Not only does he find their use increase the luxuriance of the plant, and the beauty of its colours, but there is in the application of this powder an elegance and cleanliness which cannot fail of recommending its introduction into the flower garden, and the conservatory.

Such have been some of the successful uses to which bones have been employed. The turnip crop has been the more generally experimented upon from the general difficulty of finding for this invaluable crop a sufficient supply of manure.

And with regard to other crops, the care and labour required for trying with sufficient accuracy a comparative agricultural experiment, must account for many discordant statements. Upon grass lands, however, it has been employed with very general success; but for the turnip, on poor light soils, it seems of the greatest and most undoubted value. It not only promotes the luxuriance of the plant, but there is a very great probability that the gaseous matters evolved by the crushed and putrifying bone, and the vigour it imparts to the crop, afford the young turnip plants very considerable protection from the ravages of the fly; at least many farmers consider this as one of its valuable properties.

The complete manner in which the roots of the young turnips envelope the pieces of crushed bone with which they are drilled, shews the attractive nature of this manure, and how nourishing it is to the turnip.

I cannot conclude these observations without professing my readiness to assist in any experiments, and answer any questions which may promote a cause now proceeding so successfully. The consumption of bones has already rendered it necessary to import them from foreign countries; and it yet remains to be proved, whether the fossil phosphate of lime will not be nearly as powerful a fertilizer as the crushed or powdered bones usually employed.

**GENERAL DIRECTIONS.**—The crushed bones have been invariably found more immediately beneficial as a fertilizer, when suffered to remain previously for some weeks, mixed with earth in heaps, exposed to the action of the atmosphere. By being thus fermented and dissolved, they are necessarily more speedily serviceable as food to the plants to which they are applied; and this observation more especially relates to the oats, barley, and other spring corn, since these do not remain on the ground for so long a period as other agricultural crops. The proportion is 50 bushels of bones, with five loads of earth or clay; or 40 bushels to five loads of common dung.

For wheat and pasture lands the previous fermentation of the bones is, for this reason, not so essential to the production of immediate benefit.

It is impossible to give any general directions for the quantity of bones to be applied per acre, since

soil, situation, and climate, must all be taken into the farmer's consideration.

The following facts, however, have been ascertained by numerous experiments, at some of which I have personally assisted.

1. That crushed bones remain in the soil, for a length of time proportionate to the size of the pieces; the dust producing the most immediate effect, the larger pieces continuing to shew the longest advantage. On arable land their good effects continue for four years; on pasture land for eight.

2. On turnips, oats, barley, and wheat, the quantity applied has been from 25 to 30 bushels per acre; on pasture land, from 25 to 40 bushels of bone *dust*, early in the spring.

3. The best mode of application is by the drill, with the seed corn.

4. The bones should, when first used, be always applied for the sake of correct information, in varying quantities per acre; and on no account should the farmer omit to leave, by way of comparison, a fair portion of the field without any manure.

## REPORTS.

### PREMIUMS FOR EXPERIMENTAL FEEDING.

#### No. I.

*East Fortune, March 21, 1836.*

SIR,—In compliance with the request contained in your note of the 16th inst., I send you the following Report of a Comparative Experiment in Feeding Cattle conducted by me in competition for the premium offered by the East-Lothian Agricultural Society.

The Committee of Management having approved of the scheme submitted to them, as required by the conditions contained in their advertisement, the cattle experimented upon, were, on the 17th October last, chosen from my winter fattening stock, and divided into four lots, each lot consisting of seven oxen, by the Sub-Committee appointed to superintend experiments of this kind.

The cattle are of the common breed of the counties of Durham and Northumberland,—are at present four years old,—and have been fed in the following manner:—

Lot 1 has been fed on turnips alone, getting as many as the cattle could consume.

Lot 2 has had potatoes at the rate of about 3½ lbs per day for each ox, besides as many turnips as they could eat.

Lot 3 has had, along with an unlimited quantity of turnips, an allowance to each ox, of 5 lbs Linseed cake per day; and

Lot 4 has been fed on draff and dreg from Linton Grain Distillery, and latterly a mixture of peas and oats, coarsely ground, has been given with the draff.

An account has been kept of the number of carts of turnips given to each lot, and a cart-load occasionally weighed, in order that the whole quantities consumed might be approximated to with sufficient accuracy;—the whole of the other food has been weighed or measured.

The experiment commenced on the 19th October last, and from that date to this, a period of twenty-two weeks, the quantities of food that the four lots have severally consumed, are as follows:—

Lot 1, Fed on Turnips alone, has consumed	
36 tons white globe, at 6s per ton	£10 16 0
27 ditto Dale's Hybrid, at 7s do.	9 9 0
33 ditto Swedish, at 9s ditto	14 17 0
	£35 2 0

This is at the rate of about 4s 7d per week for each ox.

*Lot 2, Fed on Turnips and Potatoes.*

22 tons white globe, at 6s per ton	£6 12 0
17 ditto Dale's Hybrid, at 7s do.	5 19 0
19 ditto Swedish, at 9s ditto	8 11 0
16½ ditto Potatoes, at 43s ditto	24 7 6
	£45 9 6

This is at the rate of about 5s 7d per week for each ox.

*Lot 3, Fed on Turnips and Linseed Cake.*

35 tons white globe, at 6s per ton	£10 10 0
25 ditto Dale's Hybrid, at 7s do.	8 15 0
33 ditto Swedish, at 9s ditto	14 17 0
45½ ct. linseed cake, at 7s 9d p. ct.	17 12 ½
	£51 14 7½

This is at the rate of about 6s 8½d per week for each ox.

*Lot 4, Fed on Distillery Grains, &c.*

115 qrs. draff, at 4s per qr.	£23 0 0
83 puncheons dreg, at 2s per pun of 125 imp. gallons	8 6 0
4 qrs peas coarsely ground, at 28s per qr.	5 12 0
1½ qrs Oats do. do., at 20s do.	1 10 0
16 bushels Salt, cost price	1 1 3
	£39 9 3

This is at the rate of about 5s 1½d per week for each ox.

As the cattle are to be exhibited at Haddington on the 1st April, and there inspected and valued by judges appointed by the Committee of Management, I shall not insert any comparative estimate of the weight or value of the separate lots; I cannot give their exact measurement, as several of the cattle will not allow it to be taken.

Regarding the quality of the different kinds of food, I may state,—That the white globe and Dale's Hybrid turnips, were grown on dry gravelly soil of good quality, the manure a mixture of bones and rape cakes; they were sown rather late, were of small size, and very firm and juicy. The Swedish turnips grew on a more clayey soil, of very good quality,—were matured with farm-yard dung and bones, and when lifted, the smaller roots were kept out. All the three varieties were excellent of their kind; and, if it be considered that there is nothing deducted from the price of the oil cake and other rich food, on account of the very superior quality, as well as increased quantity, of the manure which they produce, I conceive that the rates of value adopted for the turnips, will not be thought too high.

The potatoes given to lot 2, were of the variety called dons, and of a quality that would be considered good in any season;—I mention this because, although cattle, when they have a choice, prefer the larger and coarser varieties, these contain a much less proportion of nutritive matter than the table sorts.

The linseed cake employed, was of the best Dutch, and probably not much inferior to English-made cake. For the most profitable employment of this expensive food, the present experiment has been continued too long; for even admitting that the cattle fed on it have increased in weight of beef considerably more during the last half of the time, than they did during the first, yet as their beef, at the end of the first three months, would have brought about the highest price in the market, the food since consumed by them, it appears to me, might have been more profitably used in feeding another such lot; for in this way twice the number of lean carcasses would have been converted into valuable beef.

Finding that the lot on distillery offal were making

very little improvement, I began, in the beginning of February, to give them some meal mixed with their draff; before this, when the draff was new and sweet, they did very well; but as it grew stale, they ate gradually less and less of it, and more straw, with which, in common with the three other lots, they were always liberally supplied; since that time, by increasing the quantity of meal with the draff became sour, the mixture is always eaten with relish, and the cattle have been improving very rapidly. The expense of feeding, also, is at the same time greatly increasing; the meal, at the rate they have been allowed it, costing for each ox, fully 3s per week, given at a smaller daily rate, continued during a longer period, the same quantity of meal would probably have produced a better effect; but from what I have observed while conducting this experiment, I am convinced that if distillery offal, at its present price, can in any way be profitably used in years when not more than ordinary profit on feeding is obtained, it must be by giving along with it some other better food.

Trusting that these notes contain all necessary information.—I am, &c. A. BRODIE.

To Mr. George Dods, Secretary, U.E.L.A.S.

The following is the valuation put upon the several lots by the Judges—viz.,

Lot. 1, Valued at	£21 10s each.
2, Do.	22 10 do.
3, Do.	25 0 do.
4, Do.	21 0 do.

No. II.

*Lawhead, March 24, 1836.*

DEAR SIR,—After receiving your letter of the 18th October, I was induced to prosecute the experiment which I had previously signified my wish to conduct, in the hope of its leading to some beneficial result. The object sought for, was to ascertain whether beans, potatoes, and turnips, raised in equal proportions, upon certain kinds of soil, might not be made available in feeding cattle, as successfully and extensively as could be done by the same extent of land being put exclusively to a crop of turnips for the like purpose.

With an intention of throwing some light upon this subject, two members of your Sub-Committee proceeded, with the assistance of Mr. John Hutchison, to separate twelve queys, and eight steers, into four lots of five each, three queys and two steers in each lot. They were marked, numbered, and tied to the stake that day, and by the 25th October the several lots were put to their allowance, fewer potatoes being given the first fortnight, as a matter of precaution. Before this time I had arranged matters, taken up, weighed, and stored for the lot of five cattle,—

No. 1. Three and a half imperial acres of Swedish turnips, weight per acre, 14 tons, 3 cwt, say in all 49½ tons. This I calculated would afford 134 lbs daily to each beast, up to the time of their removal.

No. 2. For this lot I stored one and three quarters acres of turnips, and one and three quarters of potatoes, which weighed 12 tons per acre, so that the allowance for the five cattle, in all, was 24¾ tons of turnips, and 21 tons of potatoes, yielding 67 lbs of turnips, and 56 lbs of potatoes per day to each animal.

No. 3. For this lot I stored one and three quarters acres of turnips, 24¾ tons produce; and set apart also the produce of one and three quarters acres of peas and beans, which I imagined might produce 8 bolls per acre; but the crop at this period not being in a condition to be thrashed

or ground, I borrowed 4 bolls of old beans, which were afterwards repaid, upon the supposition of 8 bolls. However, I proceeded to serve out daily for each beast of this lot, 67 lbs of turnips, and 4 lbs of meal. The bean crop being now thrashed, it was found to yield 16½ bolls, in place of 14, I therefore, on the 1st of January, increased the daily allowance from 4 to 6 lbs.

No. 4. For this lot I stored one and three quarters acres of potatoes, produce 21 tons; and one and three quarters of peas and beans, 16½ bolls. Here, as in the case of No. 3, four bolls of old beans were borrowed, so that at first the daily allowance for each beast was 56 lbs of potatoes, and 4 lbs of meal, the quantity of meal being increased to 6 lbs, the same as No. 3. I may farther mention, that each beast of this lot only, was allowed daily, about 10 Scotch pints of water, and straw in common with the three other lots, which got no water.

Thus managed, the cattle will be exhibited on the show ground at Haddington, when the judges will determine the result of this experiment. By a few days' close attendance in the out-set, I was enabled to guard against mistakes in the after-management. The turnips, potatoes, and beans, having been measured off, one acre of the turnips, and another of the potatoes, were taken up from different spaces of seven drills, each as directed by the gentlemen of the sub-committee.

The produce of 14 imperial acres of land having been thus apportioned for the 20 cattle, each 5 being to consume the produce of 3½ acres, which was separately and distinctly set apart for them. Having seen this correctly done, the keeper was allowed to proceed in his own way; as I foresaw that in the end the remainder (if any of the produce should remain,) would testify concerning the relative value of turnips, potatoes, and beans per acre, when converted into beef; this being the main object sought for in such an experiment.—I am, &c.

ANDREW HOWDEN.

The following is the valuation put upon the several lots by the Judges—viz.,

Lot. 1, Valued at .....	£12	4s	each.
2, Do.....	13	12	do.
3, Do.....	14	16	do.
4, Do.....	14	0	do.

KIND AND QUANTITY OF FOOD STORED AND CONSUMED.

	Turnip.	Pota.	Beans.
	ton. ct.	tons.	ton.ct.lb.
No. 1.			
Kind & quality of food stored for	49 10	—	—
Unconsumed .....	— 12	—	—
Total food consumed.....	48 18	—	—
No. 2.			
Kind & quality of food stored for	24 15	21	—
Unconsumed .....	—	5	—
Total consumed.....	24 15	16	—
No. 3.			
Kind & quality of food stored for	24 15	—	1 17 80
Unconsumed .....	— 6	—	4 —
Total consumed.....	24 9	—	1 13 80
No. 4.			
Kind & quality of food stored for	—	21	1 17 80
Unconsumed .....	—	5	4 —
Total consumed.....	—	16	1 13 80

TO THE EDITOR.

SIR,—I have been surprised by reading for several weeks back such flattering accounts of the sheep flocks in the south, with such favourable reports of their lambing, particularly as I see accounts in the same week of the severity and changeableness of the weather, which till lately appears to have been much more severe in the south, though not more variable than it has been here. But stern winter, though he seemed to be taking a tour of his southern dominions in the earlier part of his reign, has yet convinced his subjects of the north by his late notice that they have lost no part of his regards. The flocks of sheep in the direction of Shap Fells, Keswick, &c. were, till within these ten days, completely locked up by snow, for two or three weeks at the end of March and beginning of the present month, and the losses have consequently been enormous. One farmer I can mention from my own knowledge, had taken upwards of 600 ewe skins to Kendal a month since, and expected to loose at least as many more when the grass got to growing freely. Another, a smaller farmer, had purchased a small stock of between 60 and 70 sheep in the autumn, and a short time since he informed he had but two left, and they were both "poaked." It is an universal complaint here that there are many "failing" (rotten) sheep in all breeding flocks of fell sheep; and amongst what are here called "kind" (Leicester) sheep, very few lambs have been got out. I consider myself very fortunate in this respect, in having got out near 80 from 100 ewes. In hogs (hoggets) I have heard of nobody who has come off better than myself, and I have lost about 40 out of 200. I attribute my good fortune to having had plenty of very good hay, and having been very liberal of it, and good house room and turnips from my breeding ewes. The average loss to the best of my knowledge among hogs will be about one in three; of ewes it is impossible to form any idea. The falls of snow have been the deepest in the districts of the breeding flocks of fell sheep. My own observation extends only along the line of demarkation between the fell breed and the "kind breed," and the loss has fallen upon the lambs. How they have come off in Scotland I have not heard, but I doubt not that there, as well as here, will be severely verified their Shepherd's adage,

"Many frost and many thow,  
Macks mony weary rotten yowe."

At the fairs which have been held in this neighbourhood lately, as at Jedburgh on the 20th, and Penrith on the 25th, cattle went off very briskly, especially calves and gelt cattle, at prices at least 25 per cent. higher than in the autumn. I shall say nothing with regard to our corn markets; we are buyers generally. The tithe is our greatest annoyance. Our poor rates are not very heavy, about 8 or 10 per cent. and Mr. Voules, the commissioner, promises to reduce this burden considerably. Our highway rate, too, is very galling, as we have both the burden of making our roads good for the manufacturer, and obliged to pay a toll for using them ourselves.—Yours, &c., X. Y.  
April 28.

P.S. May 1st.—We have had three very hard frosty mornings, one of them harder than any during the winter. Kendal fair, 29th ult. was well attended, and, considering the state of the weather, the better end of the cattle were very ready sale; others were not so ready as at late fairs.

The following table contains a statement of the quantity of soluble or nutritive matters existing in varieties of the different substances which are used as articles of food, either for man or cattle. The analysis are principally those of Sir Humphrey Davy, conducted with a view to a knowledge of the general nature and quantity of their properties.

TABLE OF THE QUANTITIES OF SOLUBLE OR NUTRITIVE MATTERS AFFORDED BY 1,000 PARTS OF DIFFERENT VEGETABLE SUBSTANCES.

Vegetables, or Vegetable Substances.	Whole quantity of soluble or nutritive matter.	Mucilage or Starch.	Saccharine matter or Sugar.	Gluten or Albumen.
Middlesex Wheat, average crop .....	955	765	..	190
Spring Wheat .....	940	700	..	240
Mildewed Wheat .....	210	178	..	32
Blighted Wheat .....	650	520	..	130
Thick-skinned Sicilian Wheat.....	961	723	..	239
to	to	to	..	to
955	722	..	..	230
Poland Wheat .....	950	750	..	200
North American, do. ....	955	730	..	225
Norfolk Barley .....	920	790	70	60
Oats, from Scotland .....	743	641	15	87
Rye, from Yorkshire .....	792	645	38	109
Common Beans .....	570	426	..	103
Dry Peas .. .....	574	501	22	35
to	260	200	20	40
Potatoes .. .....	200	155	15	30
Linseed Cake .....	151	123	11	17
Red Beet .....	148	14	121	13
White, do. ....	136	13	119	4
Parsnips .....	99	9	90	..
Carrots.....	98	3	95	..
Common Turnips .....	42	7	34	1
Swedish Turnips.....	64	9	51	2
Cabbage .....	73	41	24	8
Broad-leaved Clover .....	39	30	3	2
Long-rooted, do.....	39	30	4	3
White Clover .....	32	29	1	3
Sanfoin .....	39	28	2	3
Lucerne .....	23	18	1	..
Meadow fox-tail Grass ..	33	24	3	..
Perennial Rye Grass .....	39	26	4	..
Fertile Meadow, do. ....	78	65	6	..
Roughish Meadow, do. ....	39	29	5	..
Crested dog's-tail, do. ....	35	28	3	..
Spiked fescue, do. ....	19	15	2	..
Sweet scented soft, do. ....	82	72	4	..
Sweet scented vernal.....	50	43	4	..
Florin .....	54	46	5	1
Florin, cut in winter....	76	64	8	1

All these substances were submitted to experiments, green and in their natural states, and it may be here recapitulated that starch or coagulated mucilage forms the greatest part of the seeds and grains used for food, combined with gluten, oil, or albuminous matter; in corn, in union with gluten; in peas and beans, with albuminous matter; and in rapeseed, hempseed and linseed with oils.

	Starch.	Gluten.
100 parts of good full bodied wheat sown in Autumn, afforded .....	77	19
Ditto in Spring.....	70	24
Ditto Barbary Wheat .....	74	23

and all the different specimens of North American

wheat which have been examined, contain rather more gluten than the British. In general the wheat of warm climates abounds more in gluten, and in soluble parts; and it is of greater specific gravity, harder, and more difficult to grind. In the South of Europe hard or thin skinned wheat is in higher estimation than soft or thick skinned; the reason of which is obvious, from the larger quantity of gluten and nutritive matter it contains, and it is therefore more peculiarly fitted for making *macaroni*, and other preparations of flour, in which a glutinous quality is considered as an excellence. In England the difficulty of grinding thin skinned wheat is an objection, but the difficulty appears to be easily overcome by moistening the grain, as intimated by the consul-general at Lisbon, in answer to some questions transmitted to him on the subject; he states, that in order to grind hard corn with the mill-stones used in England, the wheat must be well screened, then sprinkled with water at the miller's discretion, and laid in heaps and frequently turned and thoroughly mixed, which will soften the husk, so as to make it separate from the flour in grinding, and of course give the flour a brighter colour; otherwise the flinty quality of the wheat and the thinness of the skin, will prevent its separation, and will render the flour unfit for making into bread; the consul was informed by a miller of considerable experience, and who worked his mills with the stones from England or Ireland, that he frequently prepared the hard Barbary wheat by immersing it in water in close wicker baskets, and spreading it thinly on the floor to dry; much depending on the judgment and skill of the miller in preparing the corn for the mill, according to its relative quality; not that the weight in the flour of hard corn is increased by this process of wetting, but from its natural quality it imbibes considerably more water in making it into bread. The mill-stones must not be cut too deep, but the furrows very fine, and picked in the usual way. The mills should work with less velocity in grinding hard corn, than with soft, and set to work at first with soft corn, till the mill ceases to work well, and then the hard corn can be put on. Hard wheat always sells at a higher price in the foreign market than soft wheat, on an average of 10 to 15 per cent; as it produces more flour in proportion and less bran than the soft corn. The flour of hard wheat is in general superior to that made from soft; and there is no difference in the process of making them into bread; but the flour from hard wheat will imbibe and retain more water in making into bread, and will consequently produce more weight of bread; it is the practice in Portugal, and which it is advised to adopt in England, to make bread with flour of hard and soft wheat, which by being mixed, makes much better bread.

It is to be implied that the excellence of the different articles, as food, will be found to be in great measure proportioned to the quantities of soluble or nutritive matters they afford; albuminous or glutinous matters having the characters of animal substances, differing from the other vegetable products by containing azote; sugar is more nourishing and extractive matter less nourishing, than any other principles composed of carbon hydrogen, and oxygen. Gum and sugar excluding the different proportions of water they may contain, afford nearly the same elements by analysis, and starch differs from them only in containing a little more carbon; in conclusion of this cursory review, it may be remarked, that certain combinations of these various substances may be more nutritive than others; for instance, Sir Joseph Banks remarks, that the Derbyshire miners

in winter prefer oat cakes to wheaten bread, finding that this kind of nourishment enables them to support their strength, and perform their labour better. In summer they say, oat cakes heat them, and they then consume the finest wheaten bread they can procure. Even the skin of the kernel of oats probably, has a nourishing power, and is rendered partly soluble in the stomach with the starch and gluten. In most countries of Europe, except Britain and in Arabia, horses are fed with corn of different kinds, mixed with chopped straw; and the chopped straw seems to act the same part as the husk of the oat. In the mill, 14lbs. of good wheat yield on an average, 13lbs of flour; the same quantity of barley 12lbs, and of oats only 8lbs.

ANNUAL AMOUNT OF THE OLD DUTY ON HOPS, FROM THE YEAR 1772.

1772	102650	1794	203063	1816	46302
1773	45847	1795	82342	1817	66322
1774	138887	1796	75223	1818	199465
1775	41597	1797	157458	1819	242076
1776	125691	1798	56032	1820	138330
1777	43581	1799	73279	1821	154609
1778	159891	1800	72928	1822	203724
1779	55800	1801	241227	1823	26058
1780	122724	1802	15463	1824	148832
1781	120218	1803	199205	1825	24317
1782	14895	1804	177617	1826	269331
1783	75716	1805	32904	1827	140848
1784	94359	1806	153102	1828	172027
1785	112684	1807	100071	1829	38398
1786	95973	1808	251089	1830	88027
1787	42227	1809	63952	1831	174864
1788	143168	1810	73514	1832	139018
1789	104063	1811	157085	1833	156905
1790	106841	1812	30561	1834	189713
1791	90059	1813	131482	1835	235207
1792	162112	1814	140292		
1793	22619	1815	123878		

CALCULATION OF THE HOP DUTY PER CWT.

Original Duty, 1d per lb.	0	9	4
Three 5 per Cents on do.	0	1	4 $\frac{1}{2}$ +20
1802, April 30, New Duty, $\frac{1}{4}$ 8-20 per lb.	0	12	7 15-20
		1	3 4
1805, July 10.... $\frac{1}{2}$ per lb. reduced..	0	4	8
Total per Cwt.....	0	18	8

As regards the Beet-Root Company now advertised you may remark, that a few years past it was tried by some quakers in Essex, who were abolitionists, wishing to abolish Negro-labour, and the sugar retailed in Bishopsgate-street at the lowest rates to admit of profit, which were 8d per lb, and the article possessing much less saccharine matter than the produce of the cane, required nearly one-third more to give the sweetness of the West India sugars. All the ladies "were up in arms," imprecating the beet-root sugar, as having used it for preserves and wines in the same quantity as the West India sugar, had found their sweets sour. In the Indies sugar can be made and brought to this country materially cheaper than extracted from beet-root, either in this country or France, but the excise laws prevent its being retailed to the consumer at 3d per lb, which it might be, in order to secure the West India interest. The sugar, unless refined, tastes of the root.

SUCCESSION OF CROPS.

As crops of the cultivated plants succeed to each other upon the same ground, a question to be determined is the order in which the different kinds should follow each other.

All plants which are cultivated, and which are carried from the ground where they are produced, tend to render the soil less productive, or, in the language of farmers, to exhaust it.

But plants which are suffered to decay, or which are consumed by animals on the ground on which they grow, do not exhaust the soil. On the contrary, the decay of the stems and leaves of such plants, either naturally, or by the consuming of them by animals, tends to add those decomposing organic matters to the soil which form one of the elements of its fertility. This process may be imperceptible and slow, but it is that which Nature herself employs to form the soil, as distinguished from what has been termed the subsoil.

Sometimes this process of decay is counteracted by the singular natural provision, of a conversion of the decomposing vegetables into a substance which itself resists decomposition—peat. But, with this exception, the tendency of the decay of vegetables upon the surface is to add to the fertile matters of the soil.

This is well understood in the practice of agriculturists. When the productive powers of a soil have been exhausted by cultivation and the carrying away of its produce from the surface, it is laid down to herbage, in which state the future vegetation which it produces tends, by its decomposition upon the surface to renovate the productive powers of the soil. Land in this state is said to rest.

When land, however, has been impoverished by successive crops, and has become full of weeds, the laying it down to rest in that state is attended with less beneficial consequences than when the soil has been previously cleaned of injurious weeds, and fertilized by good culture. In the former case, the process of renovation is slow, if perceptible at all; the useless plants increase, and not those which are beneficial and afford food to pasturing animals. Land, when properly laid down to grass, therefore, tends to recover its wasted powers of production. Land not properly laid down has less of this healing property, and may be more full of weeds, and no richer when ploughed up again after a time, than when first laid down. Under good management, however, the laying down of cultivated land to grass and other herbage-plants to be consumed upon the ground, is a means of resting the soil, and renovating its powers of production; and this mode of recruiting an exhausted soil being always at the command of the farmer, its application is important in practice. It is to be observed also, that the poorer soils require this species of rest and renovation more than those which are naturally productive.

The experience of husbandmen from the earliest times has shown, that the same kinds of plants cannot be advantageously cultivated in continued succession. The same or similar species tend to grow feebly, or degenerate, or become more subject to diseases, when cultivated successively upon the same ground; and hence the rule which forms the basis of a system of regular alternation of crops is, that plants of the same or similar species shall not be cultivated in immediate succession; and further, the same rule has been thus far extended, that the same species shall recur at as distant intervals of the course as circumstances will allow.

All herbaceous plants whose produce is carried off

the ground which produces them, may be said to exhaust the soil upon which they grow. But all such plants do not exhaust the soil in the same degree; for after some species the soil is seen to be more impoverished than after others.

And not only do different species of plants exhaust the soil in a greater or less degree than others, but the same species does so according to the different period of its growth at which the plant is removed from the ground.

When a herbaceous plant is suffered to mature its seeds, it exhausts the soil more than when it is removed before its seeds are matured. All herbaceous plants, therefore, when cut in their green state, that is, before they have matured their seeds, exhaust the soil less than when they remain until they have ripened their seeds. Thus the turnip, when used in its green state, is one of the least exhausting in the agricultural class of plants to which it belongs; but the turnip, when allowed to remain upon the ground until it has ripened its seeds, is one of the most exhausting plants that is cultivated amongst us; and so it is with the rape and others.

Further, certain plants, by the larger or smaller quantity of manure which the consumption of them affords, are more or less useful in maintaining the fertility of the farm.

When a herbaceous plant is suffered to mature its seeds, and when any part of these seeds is carried off the farm, the plant affords, when consumed by animals, a smaller return of manure to the farm than if the same plant had been cut down before it had matured its seeds, and been in that state consumed by animals. Thus it is with the turnip plant referred to. This plant is with us sown before midsummer. In the first season it forms a napiform root, and puts forth a large system of leaves. Early in the following season it puts forth a long stem, which bears flowers, and the seeds are generally matured about midsummer. If this plant is removed in the first stage of its growth, that is, after it has put forth its large leaves and formed its bulb, and is then consumed by animals, it returns a great quantity of manure; but if it remains until the second state of its growth, then the consumption of its stems and leaves returns scarce any manure. The juices of the root have apparently been exhausted in affording nutrition to the flower-stem, the flowers, and the seeds.

It is beyond a question, that, in order to bring a plant to its entire maturity, by the perfecting of its seeds, a larger quantity of the nutritive matter of the soil is sucked up by it than when it is brought only to its less advanced stages. When crops of plants, therefore, are suffered to arrive at maturity, they are greatly more exhausters of the soil on which they grow than when they are cut down while they are green; and if those seeds are in whole or in part carried off the farm, the crops are exhausters of the farm, as well as of the ground which had produced them. Were the ripened seeds to be wholly returned to the soil, it may be believed that they might give back to it all the nutritive matter which had been derived from it. But, in practice, seeds are employed for many purposes, and are generally carried off the farm which produces them. When this is done in whole or in part, the plants produced are in an eminent degree exhausters of the farm, as well as of the soil on which they have grown.

Further, certain plants, from their mode of growth and cultivation, are more favourable to the growth of weeds than other plants. The cereal grasses, from growing closely together, and not admitting, or admitting partially, the eradication of weeds, are more

favourable to the growth and multiplication of weeds than such plants as the turnip and the potato, which are grown at a considerable distance from each other, and admit of tillage during their growth, and whose broad systems of leaves tend to repress the growth of stranger plants.

Having these principles in view, certain rules may be deduced from them, for the order in which the crops of plants in cultivation in a country shall succeed to each other on the same ground.

1st, Crops consisting of plants of the same or similar species shall not follow in succession, but shall return at as distant intervals as the case will allow.

2d, Crops consisting of plants whose mode of growth or cultivation tends to the production of weeds, shall not follow in succession.

3d, Crops whose culture admits of the destruction of weeds, shall be cultivated when we cultivate plants which favour the production of weeds. And further, crops whose consumption returns to the soil, a sufficient quantity of manure, shall be cultivated at intervals sufficient to maintain or increase the fertility of the farm.

And, 4th, when land is to be laid to grass, this shall be done when the soil is fertile and clean.

These rules may be applied to the plants which form the subject of common cultivation in the fields. In this country, the plants chiefly cultivated on the large scale are,—the cereal grasses, chiefly for the farina of their seeds; certain leguminous plants, as the bean and the pea; plants cultivated for their fibres, as the flax and hemp; for their leaves, roots, or tubers, as the turnip, the cabbage, and the potato; and certain leguminous and other plants for forage or herbage. The plants of these different classes are yet to be described; and they are now only referred to with relation to the order in which they may succeed to each other in cultivation.

The 1st class of these plants consists of the cereal grasses. These are chiefly wheat, barley, oats, and partially rye. All these plants are in an eminent degree exhausters of the farm. They are all suffered to mature their seeds, and are wholly or partially carried away from the farm. Further, from the manner of their growth, and mode of cultivation, they all tend to favour the production of weeds. For these reasons, and on the general principle that plants of the same or similar kinds should not follow in succession, the cereal grasses should not succeed each other, but should be preceded or followed by some crop, which either exhausts the soil less, or admits of a more perfect eradication of weeds.

2d, The leguminous plants cultivated for their seeds, as the bean and the pea, are all exhausters of the soil. They ripen their seeds, and these seeds are for the most part carried off the farm. Some physiologists suppose that they are less exhausters of the soil than the cereal grasses. It is probable that they do exhaust the soil somewhat less than the cereal grasses. But the essential difference between them, when considered with relation to their effect upon the soil, is, that, from their growth, and the manner of cultivating them, they are greatly less favourable to the production of weeds than the cereal grasses. By their broader system of leaves, they tend to stifle the growth of weeds more than the cereal grasses; and further, they admit of tillage during a great part of their growth. This is especially the case with the bean, which is therefore regarded as a useful cleaning crop, and so is cultivated in rotation with the cereal grasses, as a mean of preserving the land clean.

3d, Hemp and flax, which are cultivated chiefly for their fibres, and all plants cultivated for their oils,

are exhausters of the soil. They are suffered to form and ripen their seeds, and their stems afford no return of manure to the farm.

The next class of plants, from the large return of manures which the consumption of them affords, may be regarded as enriching or restorative crops, in contradistinction to the others, which may be termed exhausting crops:—

1. The turnip, the rape, and other plants of the cabbage genus, cultivated for their roots and leaves, and consumed upon the farm.

2. The potato, the carrot, the parsnip, the beet, and other plants cultivated for their tubers and roots, and consumed upon the farm.

3. The leguminous plants,—the clover, the tare, the lucerne, and others,—when cut green for forage, and consumed upon the farm.

The plants of the latter class, namely the leguminous, when mixed with gramineous plants, as the rye-grass, are commonly termed the artificial grasses, but would be more correctly termed the cultivated herbage or forage plants. They are often suffered partially to ripen their seeds, and are made into hay; and in this case they follow the general law, exhausting the soil more than when used green. And when the hay-crop is carried away from the farm, they are to be regarded as exhausting rather than restorative crops.

In speaking of these different classes of plants the following terms may be employed:—

1. The cereal grasses may be termed Corn-crops.

2. The leguminous plants cultivated for their seeds, Pulse-crops.

3. The turnip, and other plants of the same kind, cultivated for their roots and leaves, may, with reference to the mode of consuming them, be termed Green crops; or, with reference to the manner of preparing the ground for them, Fallow-crops.

4. The potato, and plants of other families cultivated for their roots and tubers, may, in like manner, be termed Green or Fallow crops.

5. The leguminous plants cultivated for green food, as the lucerne and tare, may be termed Green Forage-crops.

And, lastly, the mixture of gramineous and leguminous plants cultivated for herbage or green food, may, in compliance with common language, be still termed the Sown or Artificial Grasses.

Further, distinguishing these different classes of crops according to their effects upon the fertility of the farm, they might be divided thus:

1. Corn-crops,—exhausting crops, and favourers of weeds.

2. Pulse-crops,—exhausting, but cleaning crops or capable of being rendered so.

3. Green or Fallow crops,—restorative and cleaning crops.

4. Green forage-crops,—restorative and sometimes cleaning crops.

5. The sown grasses,—restorative crops.

Knowing these the general characters of the cultivated plants, we have, in devising a rotation, to cause the restorative and cleaning crops so to alternate with the exhausting crops, as that the land may be preserved fertile and clean. Further, when we find that land cannot be sufficiently cleaned by means of cleaning crops, we must make use of the summer-fallow; and again, when we find that land requires rest, we may lay it down to grass for a longer or shorter time, taking care when this is done that the land shall be in as fertile a state as circumstances will allow, and free of weeds.

The application of these principles will be best explained by adverting to some of those courses of

crops which have been found good in practice, both as maintaining or increasing the fertility of the soil, and as admitting of an economical division of labour upon a farm.

The first of these courses is the four-years' course, or four-shift course, as it is sometimes called. This course is of very general application, and forms the basis of nearly all the most approved rotations on the lighter soils and inferior clays of this country.

It consists of a regular alternation of the following crops.

1st year, Turnips or other green crop manured.

2d Corn-crop, as wheat, barley, or oats.

3d Sown grasses.

4th Corn-crop.

In this course, we observe that each exhausting crop alternates with a restorative one: and that, in each year, one-half of the farm is under exhausting, and one-half under restorative, crops.

This rotation is adapted to a large class of soils fit for carrying green crops, though these soils ought to be rather of the better class, in order to admit of a continuance of this course in cases where there does not exist a supply of extraneous manures. When the whole produce of the restorative crops, namely, the green crop and cultivated grasses, and the straw of the corn-crops, are consumed upon the farm, the fertility of the soil will generally be maintained under this course. But when these are partially carried away, a supply of extraneous manures is necessary, otherwise the soil will decrease in fertility, and the course become what is termed a scourging one. This course, although an admirable one for an extensive class of soils, has this defect, that the crops of the same kind return at too frequent intervals, and hence are apt to fall off in quality and productiveness. Under a long continuance of this course, the red clover can often scarcely be made to grow. The land is said to *tire* of the crop, and the expression and the fact illustrate the general principle before referred to, that plants of the same species should not return at too short intervals.

The four-years' course, however, with the defects that attend it, is of very general application. It was derived from Norfolk, and is frequently termed the Norfolk-course, and it is, in a great measure, from its general adoption that the husbandry of that county has become so celebrated.

The summer-fallow may be substituted for the manured Green-crop in the first year of this course, and then the course becomes:—

1st year, Summer-fallow;

2d Corn-crop.

3d Sown grasses;

4th Corn-crop.

The course thus modified, is adapted to the stiff and humid clays, where turnips and other green crops cannot be profitably raised. The course is defective in this, that the summer-fallow is too frequently repeated; and it has the same defect as the Norfolk-course, as to the too frequent return of the cultivated red clover.

Other rotations, founded upon these, are produced simply by prolonging the period for which the land sown with grass-seeds shall remain in grass. When the course is intended to be for five years, the land remains two years in grass, thus:—

1st year, Summer-fallow, or green crop manured;

2d Corn-crop;

3d Sown grasses;

4th Grass for pasture;

5th Corn-crop, generally oats.

This excellent course is less severe than the four years' course, and requiring less manure to maintain

or increase the fertility of the soil, it is better adapted to all soils of inferior quality. It does not yield so great a gross produce as the four-years' course, and therefore, where the soil, or the command of manures, admits of the latter, there is not any reason why it should not be preferred. But in other and dissimilar cases, the five years' course, as this is frequently termed, will be found to be preferable. Wherever, in this course, the soil is suited to the production of green-crops, the first crop of the series should be of that kind. But when the land is not suited to the production of green crops, or when, from any cause, the summer-fallow is to be preferred, then the summer-fallow may supersede the green crop in the first year of the series.

Although the five-years' course, which allows the land to remain two years in grass, is suited to soils pretty low in the scale of fertility, yet it is often necessary, when the soil is poor or exhausted by previous cropping, to allow it a longer rest; in which case, the land, instead of two, remains three or more years in grass.

The four and the five-years' courses are suited, it has been said, to a great extent of land in this country. But the richer clays, as well as the lighter loams of the better class, admit of a more extended and varied range of cultivation; the particular plants to be produced being determined by demand for the produce, peculiarity of local situation, command of extraneous manures, and the like.

When this is the case, it is easy to extend the four-years' course in a manner to comprehend the further plants to be produced. Let it be supposed that the land is of the richer clays, and that it is suited to the summer-fallow, then the course may be:—

- 1st year, Summer-fallow, manured;
- 1d Wheat;
- 3d Sown grasses, generally for hay or green forage;
- 4th Oats;
- 5th Beans, manured;
- 6th Barley or wheat.

This is a course deserving of imitation in all the cases suited to it, that is, where the soil is sufficiently clayey and rich, and does not require rest in pasture. Under this course, it will be seen that two-thirds of the farm are under exhausting crops, and one-third in summer-fallow and restorative crop.

A slight deviation can be made on this course without altering the principle of it, namely—

- 1st year, Summer-fallow, manured;
- 2d Wheat;
- 3d Beans;
- 4th Barley or wheat;
- 5th Sown grasses, generally for hay or green forage;
- 6th Oats.

But we can render this course less severe, by allowing the land in grass to remain two years in that state, when the course becomes—

- 1st year, Fallow;
- 2d Wheat;
- 3d Sown grasses;
- 4th Grass;
- 5th Oats;
- 6th Beans;
- 7th Barley or wheat.

In which case we have three-sevenths in restorative crops, and four-sevenths in exhausting crops. It is therefore more severe than the four-years' course, in which two-fourths are in exhausting crops. When the soil is light and fertile, as a sandy or gravelly loam, the summer-fallow of the last-mentioned

courses may be dispensed with, and any kind of green crop substituted:—

- 1st year, Green crop, as turnips, potatoes, beet or the like, manured.
- 2d Wheat or barley;
- 3d Sown grasses;
- 4th Oats;
- 5th Peas or beans, manured.
- 6th Barley or wheat.

Under this course, as before, two-thirds are exhausting crops, and one-third restorative crops. The course requires a good soil. It may be rendered less severe, by allowing the land to remain two years in grass, in which case the course becomes—

- 1st year, Green crop, manured;
- 2d Wheat or barley;
- 3d Sown grasses, for green forage or hay;
- 4th Grass for pasture;
- 5th Oats;
- 6th Beans or peas, manured;
- 7th Barley or wheat.

In this case we have three-sevenths in restorative crops, and four-sevenths in exhausting crops, in which respect it appears inferior to the four years' course; but it is superior to it in this, that the crops are more varied, and if we shall make wheat only once in the rotation, it will fulfil in an eminent degree this condition, that two crops of the same species shall return at as distant intervals as possible.

These several courses illustrate the principle of a good system of rotations as applicable to the plants commonly cultivated in this country, and they are all capable of being reduced to practice upon the farm. They may serve as the basis of other courses, where plants not enumerated here are to be introduced into the course.—*Low's Agriculture.*

#### GRINDING FOREIGN WHEAT IN BOND.

It seems to be understood, that though the proposed measure for authorizing foreign wheat to be ground in bond for exportation has been thrown out, the parties interested have not wholly lost the hope of succeeding in some measure of that kind, and at no very distant period. Their reliance is on the more favourable opinion which is now supposed to be entertained by the agricultural committee on the subject, arising out of the conviction they have arrived at, that the measure could not materially affect the agricultural interest, and might even be attended, under certain modifications, with advantage to them. When the deputation had a communication with the Board of Trade upon this matter in the latter end of last year, they were plainly given to understand that their only chance of success would be their making it in some way or other acceptable to the agricultural interest, whose views the Government could not venture to resist, and the opposition from that quarter led, in fact, in a great degree, to the loss of that measure. But there arose also some opposition for other reasons, with respect to which the parties loudly complain of the conduct of Mr. Poulett Thompson, who, after assuring them that there was no danger but from the agriculturists, insinuated doubts in his speech on the occasion whether such a measure could be adopted with safety to the revenue, which was a very different question. As the business is now in the hands of men of spirit and perseverance, who are not to be baffled by one repulse, they will certainly push the matter forward on every fit occasion that may present itself. There has been a report current, it seems, in the corn trade, that Ministers themselves had some plan in view calculated to effect their object, but this is an error. All that can be said is, that some communications have been made which have had some influence upon the agricultural committee, and that the merchants and others with whom it originated remain staunch in the pursuit of the plan they had in view.—*Times.*



## PROPOSED EXPERIMENTAL FARM.

The breeding of horses being a branch of rural economy, at once important and interesting, I beg to direct public attention to the subject; and as Mr. Dick's views nearly coincide with my own, I shall take advantage of his suggestions to show how the amelioration of the present breeds may be influenced and advanced by the establishment of an Experimental Farm.

Mr. Dick remarks that too loose notions are entertained in regard to the advantages to be derived from the proper selection of both sire and dam—that little attention has been paid to the subject, and that any kind of a mare, when rendered useless for every other purpose, has been thought good enough to breed from. But what is the consequence? The foal is reared—it is sold by the breeder at perhaps half the sum it costs to bring it up—it never pays for the food it consumes, and the breeder is continually exclaiming that the rearing of horses is a losing concern. How much less will it repay him for the risk he runs? For it is not like a bullock which will sell even although it may have a lame leg, or a badly formed joint. On the contrary, if any accident befall it (and to how many accidents and diseases are foals liable,) it is rendered useless; nor is the breeder the only loser, for the purchaser also has his sorrows to commence.

But the matter is of still more importance in a public point of view; for if we suppose that there is in the country not less than 1,500,000 horses—and that one-tenth of these are not worth the food they consume, the loss to the community is immense. Suppose, for example, that an ordinary sized horse cost 25*l* in rearing until he is four years old; suppose him also to be one of those nondescript animals to which I have been alluding, what will then be his value?—He is dear to any one as a present. We shall, however, suppose him to bring four-fifths of his cost in rearing—and the owner will be glad to get rid of him even at such a price) yet even on this supposition the total loss to the country on the aggregate number of inferior stock, which we have assumed to be one-tenth, will amount to the enormous sum of 1,500,000*l*, although the animal should then become worth his food. The loss, however, does not stop here. If he passes at four years old from the breeder's hand, still he continues to consume the produce of the country, without making an adequate return; for if we value the average value of a horse at 20*l* per annum, one of these inferior animals will do one-fourth less work than a good horse, which will make 5*l* of additional loss on each; and if we assume this description of stock to amount to one-tenth of 1,500,000*l* the total number, there will be a total loss of 750,000*l* on their labour. There is another circumstance, however, connected with these mal-formed animals, that merits consideration—viz, that from their defective formation they are unable to endure the degree of fatigue to which they are exposed—and are cut off at premature age. In one point of view, therefore, the expenses attending them are saved, but the short-lived nature of these animals is of itself a very great loss. For if we suppose the average life of horses to be 15 years, it will be found that the life of these nondescript animals is one-third short of this period, making a still farther loss of 125,000*l*. So that the total amount of real loss to the public, is 2,375,000*l* exclusive of the many accidents caused principally from their mal-formation and the extra attendance of the veterinary surgeon, whose services are thus rendered necessary.

The body of an animal may be considered as a piece of mechanism, the moving power of which is the vital principle, which, like fire to the steam engine, sets the whole in motion, but whatever quantity of fire, or vital energy, may be applied, neither the animal machine, nor the steam engine, will work with regularity and effect, unless the individual parts of which the machine is composed are properly adjusted, and adapted to the different purposes for which they are intended. It is not enough that the animal machine is put in motion by the noblest spirit, or nourished by the highest blood; every bone must have its just proportion, every muscle or tendon its proper pull, every lever its due length and arrangement, every joint its most accurate adjustment and perfect lubrication—all must have their relative proportions and strength before the motion of the machine can be accurate, vigorous, and durable. From what has been stated, it may be inferred that it is necessary to obtain those animals for breeding which approach as near as possible to perfection in their mechanism, for if "like produces like," we can only expect to obtain an improvement in the breed by such means.

In making such selections, various circumstances are to be attended to,—such as the kind of progeny wished for, and the local situation where they are to be reared. In all cases, size, and strength in proportion, combined with the greatest possible action and mildness of temper, are indispensable qualities required in both sire and dam, and the nearer they approach each other in these respects, so much the better; for although blood in horses may be of less consequence than is generally supposed, I am far from recommending that unnatural and violent crosses should be resorted to. The different varieties, I allow, arise from one parent stock, but the influence of climate, and other circumstances, have in a succession of generations, combined to alter their form and size, and, consequently it has been found necessary to divide them into various classes. The animal economy is endowed with a power of accommodation by which the individual constitution adapts itself to the situation in which it is placed. Nor is this law confined to the animal economy alone, for we find it pervading the whole face of nature, linking all together in one harmonious whole. In the deserts of Arabia, the warmth of its climate, the scanty herbage, or the detachedness of its luxuriant patches, would be but ill adapted for the maintenance of animals such as London draft horses. There we find an animal adapted, both by his frame and constitution, for the situation in which he is placed. He possesses a lightness of form, a hardness of muscular fibre, an activity and durability, which, with the fineness of his coat enable him to display those powers of speed for which he is celebrated.

But if we remove him from those arid deserts to the luxuriant pasturage of Flanders, or the Fens of Lincolnshire, or turn him adrift on the bleak and barren mountains of Shetland or Wales, we find him on the one hand gradually acquiring the most gigantic dimensions, from the nutritiousness of his diet and the trifling exercise required in procuring it; and on the other, shrinking into a mere dwarf from the incongeniality of his situation, and the scantiness and poverty of his provender.

It is the capability of changes being effected by domestication, that demands attention. If natural processes were uncontrollable by art, the interference of man would be of little avail. But when we find so much in his power, the greatest attention is necessary to give his efforts a proper direction.

When we look to animals in a state of nature, we perceive a striking uniformity in form and colour. In the domesticated state, how various are they! and why? The answer is obvious—they vary according to our capricious interference.

Seeing, therefore, the urgent necessity and manifest advantages of an improvement in this branch of rural economy, together with the almost unlimited power that breeders possess in accomplishing it, the grand desideratum is to direct this power into such a channel as will best accomplish the object in view. And for this purpose I would recommend to those agricultural societies, which are in the habit of giving premiums with a view of obtaining the best horses, to recollect that when they have procured a horse to their mind, they have done only half of what is requisite. They ought also to select the best mares in the district to breed from. Without attending to this point, they never will arrive at the beneficial results that would otherwise accrue from their labours. I would also recommend as an experiment, that some agricultural society should offer a handsome premium for a draught stallion (say £100), so that the money from the mares would not be required as a remuneration to the owner. Having thus made a selection of one of the best horses in the country, let the society then appoint a committee of the most approved judges, to whom the mares intended to be bred from should be submitted, and let only such as are approved of by this committee be allowed to be served by the prize horse.

Such an experiment, if judiciously executed, would I am certain, be attended with the most beneficial results, and each successive repetition of it would effect an increased and increasing improvement in the breed, until, by reiterated applications, so great and general an advancement would be accomplished, that numerous subjects, possessing all the requisite qualities could be obtained, from which the county could be supplied with a stock of horses, approximating, as nearly as possible, to perfection. Nor could the advantages of such experiments be confined to the individual county in which they originated, but by attracting the attention of the neighbourhood to the importance of making a proper selection, both of sire and dam, and practically demonstrating the kind of animals most proper for breeding from, they would stir up a spirit of emulation and attention to the subject, which could not fail to afford both profit and instruction to all who engaged in them.

Such is the substance of Mr. Dick's remarks, and I am sure every practical agriculturist must feel satisfied of the propriety of the course he advocates to rectify the mistakes into which the breeders of horses have so generally fallen. The urgent necessity that exists is a most powerful inducement for some local association bestirring itself in the manner he proposes; and I speak not unadvisedly when I say that were the simple plan, suggested by Mr. Dick, judiciously acted upon and generally adopted, in the course of time it would be the means of enhancing the value of horses throughout Britain to a very great extent. But in order to effect this, a general movement of the whole country is essentially requisite, and it surely requires no arguments of mine to show that such a movement can never be impressed upon the energies of even a considerable portion of the country by any local association, however disinterested and enterprising. At all events, if barely possible, it would require the lapse of many years, (I may safely say centuries) to accomplish it. Acting as they do without either concert or co-operation, and actuated as in many instances they are by feelings of jealousy towards each other, the informa-

tion and experience gained, are never made available for the general good. Consequently, it is only by collecting these energies into one grand focus, as it were, and thus giving them a concentration of purpose and unity of design, that the means employed can ever prove effective, or the results successful. And here it must be gratifying to every one interested in the establishment of an Experimental Farm to perceive how admirably adapted such an institution would serve for the accomplishment of these ends, and its manifest superiority over the utmost exertions of any local association, however well regulated or individually excellent.

As an Experimental Farm on the plan proposed in the Suggestions, contemplates the improvement, not of one particular branch only of agricultural science, but a radical amelioration of the whole in all its details, the breeding of horses would necessarily form an important and prominent feature in its economy. I shall now shortly point out the manner in which this particular branch of rural economy would be affected and improved by the operation of such an establishment.

Its action would be two-fold.

1st. Let the manager commence a general registration of the principal draught stallions in the country, through the medium of the local associations, noting their particular excellencies and defects. Let him also introduce a few breeding mares into the farm, possessed of as many of the essential requisites as possible, and proceed in the manner pointed out by Mr. Dick, to select both sire and dam according to their desirable properties and perfections. Through time and attention, and by repeated experiments, there can be little doubt but that a few warranted superior animals would be annually propagated for the use of the country. Thus, Mr. Dick's proposal would be practically developed, under every circumstance calculated to ensure its success, and an example as well as inducement given to local associations, to follow in the same track. But as this particular mode of improvement, although sure and satisfactory, could never be adopted by any single establishment, on a scale commensurate with the wants of the country, the Experimental Farm would obviate this defect.

2dly. By the head agricultural association in each county co-operating with the parent institution, and transmitting to the manager the names and general character of the breeding horses employed in their respective districts, together with the names and designations of the owners, and also the persons who have them in charge. These communications might be sent twice a-year, with a distinct and careful report of the probable number of stock each horse has thrown—with their appearance and supposed usefulness. The manager, by carefully registering their reports, would, in a few years, be enabled to give to every horse his respective character, and through time the superior breeds would signalize themselves. Instead of farmers depending for the characters and qualities of a horse, as at present, upon the bare assertion of the person who travels him—whose statement, it is natural to suppose, must be partial and interested—they would merely have to turn up the manager's register to be made acquainted with the nature of the progeny he might expect. This would, in a great measure, secure him from the machinations of those who scour the country with inferior animals, at present a pest to every district and county in the kingdom. Such a system of registration would also be the means of obviating another evil of considerable magnitude. Those local associations, that award premiums to breeding horses seldom give them to such

as exhibit the greatest number of certificates of usefulness. The judges, having no standard to guide them, generally decide according to the appearance of the animals, and the high condition in which they are kept, renders it a difficult matter either to detect their faults or appreciate their merits. The consequence of this is, that when a person really has a good horse, and sees inferior animals preferred, he becomes disgusted, and either sends him to a distant county, or disposes of him to some of those individuals who keep moving from one district to another, rendering the animal of little or no avail to the public, and, perhaps, through mismanagement, ruining him altogether.

It is thus that an Experimental Farm would be the means of introducing into the country a superior breed of horses, perfect in symmetry, and in every way suited to the different purposes for which they may be required, and that, too, without in the slightest degree interfering with the exertions of the local associations already existing. On the contrary, taking the lead in the grand march of improvement—as such an establishment might be expected to do—it paves the way, and directs the efforts of its more humble coadjutors. Like the skilful pioneer it precedes them in the career of usefulness; but it is only for the purpose of removing every obstruction and difficulty that each, and all of them, may arrive at a like state of advancement and perfection.

Trusting that the foregoing observations will meet with the approbation of my brother agriculturists, I shall at present draw them to a close. At a future period I may point out some further advantages, that would accrue to the agricultural community and the country at large, from the formation of an Experimental Farm.

A SCOTCH FARMER.

## TO THE EDITOR OF THE YORK HERALD.

SIR,—As there is now-a-days, both in town and country, no small stir upon the subject of agricultural distress, and the probable cause of that distress, should the following lines upon that very important subject be thought worthy of a place in your very useful paper, the insertion of it will certainly oblige your very humble servant. The agricultural meetings I observe are numerous attended both by landlord and tenant, some of whom enter rather largely into the subject, and though a variety of opinions are freely offered as to the cause of the present low prices of grain, and especially of wheat, yet (with all due deference both to the speakers and their speeches) I really think, Sir, that many of them greatly err in judgment respecting it. One supposes the principal cause is, the currency bill; another flings all his weight upon excessive taxation; a third tells us that the present corn laws are the sole reason of this dull state of things, whilst they all miss or overlook a plain and simple sort of a rule of three question, namely, if a redundant supply of any given quantity of wheat, has reduced the price to 35s per quarter, what would the probable effect of the same given quantity be, if not thus necessitously forced upon the market? Demand and supply always was, and always will be the chief hinge upon which turns any alteration of prices. It matters but little to the grower, provided his corn be in good request, whether it be eaten carefully up in time of peace, or whether it be eaten or partly wasted as in time of war. 'Tis true that the consumption of wheat is now great, that of barley great also, but the supply, and the

ready means of getting that supply to market being still greater, the consequence is, that not only is the moderate speculator put by, but the farmer with all his produce (especially of wheat) is unhappily thrown upon his retail customer, who too well knows, that in order to meet some pressing payment, he must sell at almost any price; and under existing circumstances, Sir, the more he sells, the more he may.

Now the currency question, or taxation, or even the present corn laws, can be properly blamed as the immediate cause of agricultural distress, I am utterly at a loss to conceive, and in order to show the fallacy of those objections more fully, and to prove that the above named premises are comparatively valueless, the farmers' own hand-writing abundantly testifies, that it is demand and supply and demand and supply chiefly, if not entirely, which moves the markets. Take for instance, the two articles of oats and beans, the former of which from very low prices indeed, was, during the past Summer, very ready sale at an advance of at least 10s per quarter upon the prime cost. The latter, a commodity for the most part consumed by cattle, was equally ready sale at several shillings per quarter higher than the average price of wheats, whilst wheat is now given in no small quantity for the feeding both of horses and dogs, pigs and oxen, and all this merely because the supply of the former were much short of the demand, whilst of wheat, there was, but now is a declining, though rather heavy surplus.

Having made these few remarks, Mr. Editor, I would now appeal to those three most upright judges for the confirmation of them, to common sense, to business habits, and to common business observation, and fearlessly ask, whether it is demand and supply, or the currency question, taxes, and corn laws united, which bear most upon the subject of agricultural distress. The three alleged causes of difficulty, bore all alike and at the same instant of time, upon the several commodities of the arable farmer, yet his trade nevertheless is turned upside down; his wheat, which once was the standard of his strength, and of his hopes and fears, is now altogether an underling, and perhaps may only rally again, either from a comparatively scanty supply, or from some unforeseen political movement of the nations. This topsyturvy sort of thing, seems to me, Sir, most unnatural, it is like unto silver bullion bearing a higher market price than gold, copper than silver; and not unlike also, a minor supplanting his father; and so convulsed is the entire business of farming, as to depreciate both the land and its produce, far below its own intrinsic value; for after all, we all live out of the land, and if that interest cannot be kept reasonably and profitably going, by and by, we shall be thrown too much upon the foreigner, and he is cunning and crafty enough always to prefer sovereigns even to manufactured goods.

As further proof, Sir, that my premises are tolerably good, I would also bring forward the general prosperity of the manufacturing districts, the which, with the very same legal enactments out against them, as is said, to fetter the farming interests, are now doing an immense stroke of more or less profitable business, and all this again, merely because demand takes the lead of supply, I care not whether the demand be great or small, for so long only as supply hobble on in the rear, trade will be brisk and beneficial.

It would be a most dangerous experiment, Sir, especially in dangerous times, for Parliament to move the nation upon such a tickle subject as the currency question, a nation is a very unwieldy creature, and can only or best be moved, as she moves herself.

Governments are now getting this hard lesson off, and kings are getting to understand, and I hope to believe, that they rule not for themselves alone, but for those more especially over whom Providence has been pleased to place them; and it would be most unfair indeed, as well as hurtful to the nation generally, thus to undo, or spoil at least, the numberless transactions effected upon the faith of a previous monetary system, and at the great risk of substituting a worse for a better. The nation is quite tired of being sent for every trifling cause, to the infant school; confidence, both individually and nationally, always requires a consolidating rather than a weakening influence, and it is only so far as good faith cannot possibly be any longer maintained, that any breach of it, is at all justifiable.

An objection has likewise been taken by several leading and influential men, who as with one accord assert, that taxation also bears hard upon the landed interest; perhaps it is slightly felt, but only slightly; I am not aware that the abstract farmer pays any direct taxes to the King worth the name, and as to his indirect taxes, he only pays according to his consumption, just in proportion as his labourer pays, and if the malt tax, against which so great a hue and cry is raised, were either partially or altogether repealed, I have yet to learn whether or no the farmer would be materially benefited thereby. A commodity situated as barley is, when once unnaturalized by taxation, does not (if even relieved of its load,) so soon recover its native state, and in the case now before us there stands between the relief and the relieved not a few both of maltsters, brewers, publicans, and beer-men, all alike ready to receive the benefit of that which was intended for the farmer, and I greatly mistake the signs of the times, Sir, if the farmer would not be left *minus* both in his expectations and in his pocket. A parallel case just now occurs to me; some few years ago the leather tax was repealed; but we all have still the pleasure, or rather the privilege, of paying almost as much for our shoes and boots as ever. It is the generally received opinion that labour is the wealth of any people, and if I were sent into some given circuit in order to ascertain as far as practicable the pecuniary healthy state of that district, my first inquiry would be—are your poor employed, and if so, are they earning remunerating wages? Should the answer be in the affirmative, to me it would be a decided proof that that circuit was more or less doing well; and though the farmer's present position is very much like unto what soldiers call their 'forlorn hope,' yet I humbly think, Mr. Editor, that theirs is not altogether a hopeless case.

There is an old saying, that "what is good for the tenant cannot be bad for the landlord." As one remedial measure, therefore, amongst the rest, let them cordially and strenuously unite purses, and give all possible employment to their labouring poor; by doing which they will at once embody all their extra-parochial poor and high-road rates in useful labour; and nothing perhaps will benefit the parties more than speedily to return to the good old practice of flail thrashing all their corn, and though rather a slow process it is a sure one, and will eventually tell, no doubt, to the good of all concerned.

In conclusion; I would just observe, in reference to the corn laws, that, in my humble opinion, the present law is perhaps the best that human wisdom can devise, inasmuch as—with all its faults and feelings—it alike protects the two extreme interests, made but sadly and madly too wide, by an over-anxious and zealous feeling of the two contending parties. The land's men have long feared, and still may justly dread a free importation; but Sir, I boldly

aver, the fact bearing me out, that by the beggaring system of machine thrashing something worse than a limited importation has long been going on; as by it the produce of the soil of England, if not under the custom-house key, is, nevertheless, in almost perpetual bondage to the man of money. I am no advocate, Sir, for high prices, or for taxes; having lived to see the great evil of them; but I am a firm and unflinching advocate for fair and reasonable profits. In sheer justice, Sir, the manufacturer should not forget, that though he professes to sell his goods at perhaps 30 per cent. lower than in times past, yet he must excuse my telling him that my coats, waist-coats, &c., are but 30 per cent worse in quality now than they were then. Not so with the farmer;—he is now selling his third successive year's produce of such super-excellent wheat as probably he may never have again, and at a great loss upon every waggon load that he delivers. I would fain recommend both parties, so far as is practicable, to join interests; not forgetting that they are inhabitants of the same soil, subjects of the same good and gracious King, and that the interests of one are, more or less the interests of both.

Begging you many pardons, Sir, even for the first time, of trespassing so long upon your valuable time and patience,

I subscribe myself,

Your most obedient servant,  
Hull, Feb. 2, 1836. J. J.

## REPORTS OF THE STATE OF THE CROPS.

FROM THE IRISH FARMER'S MAGAZINE.

For the following ample and circumstantial reports, we are indebted to the effective machinery of the Agricultural Society of Ireland, through the agency of various correspondents in all parts of the kingdom, and particularly of the Secretaries of the Local Farming Associations.

It will be seen from the following extracts, that last Winter was one of great and unusual severity, and has consequently operated very injuriously upon various interests of the cultivator.

In the unusual consumption of Winter fodder, its effects have been severely felt; and perhaps the more so, that the openness of some previous Winters threw the farmer off his guard, and induced a carelessness and want of that provident attention which, from the variable character of our climate, it imperatively demands.

The crops of wheat in most cold soils have suffered much; and in many places have partially failed. The sowing of oats has also been greatly retarded. It will be seen, that the quantity of wheat sown last year is far below the average of former seasons, (at least one-fourth less,) which together with the present unpromising appearance of the crop, must naturally lead to the conviction that the supply of that important article will be extremely limited in this country. Oats and barley have been found more remunerative crops to the farmer, and are, consequently, rapidly superseding the cultivation of wheat.

COUNTY CORK.—Some years since agricultural societies, based upon the grant afforded by Government, were introduced into this part of the kingdom.

The present appearance of the county speaks the lateness of the Spring; and to Mr. Robertson of Kilkenny, a gentleman of scientific knowledge and a close observer of nature, I am indebted for the informa-

tion, that this Spring is three weeks later than 1834 that is, the Spring of 1835 was one week later than 1834, and the Spring of 1836 is two weeks later than 1835; the consequence is, that all agricultural proceedings have been proportionably retarded—in many instances oats not as yet finished; the breadth of early potatoes must be very considerably diminished, owing to the inclemency of the weather; wheat looking thin but well coloured, but there is not the usual extent of wheat sown. Barley is likely to be the preponderating grain as to quantity, as in comparison with other years. For these last four days, 16th April—the weather has been favourable for all agricultural purposes, and no doubt much exertion has been made to make up for the lost time—as yet however there has been little vegetation.

COUNTY CARLOW.—The wet and cold of this Spring have very materially retarded the progress of the Spring crops; oats remaining in very many instances yet unsown, even in the low lands, and very little barley sown; however these last four days—18th April—having been dry and favourable much good will result, and should it continue, all will yet be got in though late. There is not near as much wheat sown in my neighbourhood this year as the average of the five preceding. This is owing partly to bad weather in November and December, and partly to the low price of the article last harvest. I have also to report that in several instances, some of which have come under my own immediate knowledge, fields of wheat sown in good time have partially or totally missed, and this on fine land; these have been ploughed up and prepared for barley. The consumption of Winter fodder has been considerable, but not much over an average. Unfortunately our farmers have not, except in a few instances in this neighbourhood, been in the habit of growing turnips, and succession crops are not understood nor attempted. Of artificial grasses I may say the same.

COUNTY DUBLIN.—The oldest persons in many parts of Ireland agree, that so wet a Winter as the last has not occurred for fifty years past, and that the present season is unusually backward and severe; consequently, the crops of wheat have in most cold soils suffered much, and those sown late are extremely backward. It appears however, on a close examination of those crops, that it is from bad cultivation or mismanagement that they suffered during Winter, the seed in some cases not being sufficiently covered, and in others the land not being properly drained, or well prepared by deep ploughing for Winter crop. In light soils, therefore, the earth is washed off the plants after a continuation of heavy rains, and if strong land be not stirred to a proper depth, the water cannot percolate to the sub-soil, and thereby keep the upper soil in a wholesome state for the growing plants to vegetate.

Spring crops are also very backward, and it is to be apprehended that early planted potatoes are much injured, and will be late and scarce. The slug and the rot have made great ravages, and where the land has been the most liberally manured with dung, this evil has increased. Lime ashes, or burnt clay, would be the fittest application to raise early crops, especially on cold or rich soils; and it would be a further protection from heavy rains or frost, to throw up the land in drills after the cuts being put in, and not levelled until they are about to push their shoots over ground. The Winter tares are also very thin and backward, and the grass land is bare on most soils, in consequence of the continued cold wind and frosts, which although not of that severity to injure wall trees, yet have materially retarded vegetation generally.

The consumption of Winter fodder has been great but the price of hay has not increased as much as might be expected near Dublin, in consequence of the introduction of Winter green crops, and the large produce of this article last year.

COUNTY FERMANAGH.—The cold and perpetual rain, has materially retarded our farming operations in this county. The sowing of oats is in consequence unusually late. This is not a wheat county, and from the low prices obtained last autumn (only 14s per 20 stone) much less was sown than formerly. Fodder of all kinds is extremely scarce, and much dearer than in the Dublin market. Green crops are not cultivated; turnips and rape are sometimes seen, but nothing like a rotation of crops; potatoes are planted two years running and succeeded by oats, without an intervening crop for three years more. Very little artificial grasses are sown; some small plots of clover may be occasionally met with in gardens only, and the gentlemen seem very indifferent about setting a good example to the lower classes.

KING'S COUNTY.—The spring sowing is in general ten or twelve days later than usual; the winter sown crops have planted and promise well. The ground under wheat is at least one-third short of the former years. There has been more hay consumed than usual; straw is usually all made into manure. Turnips are not generally cultivated; potatoes are in a pretty husbandlike manner, and to a considerable extent, both for the Dublin market and feeding stock. The advantages of succession crops are not generally understood, but the drill cultivation of potatoes has become general, and the produce of wheat has increased about one-third over their old fallow system, which is now nearly abandoned. Artificial grasses are in general use on large holdings.

COUNTY LONGFORD.—Owing to the continued wet and cold, and the circumstance of the soil being naturally moist, the spring sowing was much retarded, and very little done up to the 13th April. Not more than the average quantity of wheat has been sown this year, the ground not being generally fit for that crop. There has been an unusual consumption of dry winter fodder, the weather being too severe to keep cattle at grass, and consequently hay is dearer than it has been for some years. Turnips are cultivated solely by the gentlemen of the county. Succession crops are not practised or understood even by them, and artificial grasses are only cultivated in a few instances, and those more by way of experiment amongst the gentlemen, than by farmers.

COUNTY SLIGO.—During the last six weeks the weather has been exceedingly rough—winds westerly, north-west, and northerly, violent hail-storms, and until the last week (16th April)—the mountains were covered with snow. The spring work has been consequently retarded. I do not think that there were ten barrels of oats sown in this county previous to the 10th instant. In 1831-32, the small farmers were beginning to grow a good deal of wheat—1833 gave a tolerable return, but in 1834 the spring was wet, the crop partially failed, the hopes of many disappointed, so that last year, very little wheat was sown, and on Tuesday, April 12, I rode a very considerable distance and did not see a particle. On account of the severity of the season there has been an unusual consumption of fodder. Very few of the farmers in my neighbourhood have hay for their cattle. It would be almost impossible to buy oaten straw, and some barley straw was offered me for 2s per cwt, the average price in ordinary seasons is 10d to 11d; Hay is selling in some parts at 65s per ton, the usual price is 30s. Clover in quan-

titles from two to seven pounds, one seldom sees above two roods with any one individual; but I am happy to have it in my power to add, that the lower orders are beginning to appreciate most fully the value of these two crops; and I consider that there will be at least double the quantity sown this year than there was last. As to turnips, they are almost unknown, (of course I only allude to the lower order) except upon the verge of some reclaimed bog, or where potatoes might have failed upon the upland. It is rare to find innovations of even this magnitude. A general ignorance prevails of a judicious rotation of crops, and it is very up-hill work to have it followed.

COUNTY TIPPERARY.—I think that the progress of the spring crops, and growth of grass on pasture land has been retarded by the coldness of the weather this year, so as to be fully three weeks more backward than usual. As compared with former seasons, there is less wheat sown this year than usual. There has been more consumption of fodder this year than hitherto in consequence of the want of grass. Turnips and green crops are not cultivated except in the gentlemen's demesnes, and even there not to the extent they ought. As far as sowing red clover with a spring crop, cutting it for hay and ploughing in the after growth for a crop of wheat, the farmers have partially adopted a succession, but even in this they are somewhat discouraged, wheat not having in some instances succeeded well after red clover. Rye grass and red clover have come into use, and are likely to continue so, the farmers finding their advantage in having a crop of hay on their farm in place of paying 8*l.* and in some instances 10*l.* per Irish acre for mowing. For the last few years farmers have been discouraged from attempting any improvement from the ruinously low prices of wheat, which is the *rent paying* crop of this part of the country.

COUNTY WICKLOW.—In answer to the queries circulated by Mr. Pooler, the writer hereof has to state, firstly, that the uncommon wetness of the late season has very materially delayed the spring crops; for so incessant were the rains at about the time the potatoe crop had been removed from the ground, the wheat could not be sown; and land intended for that grain has been held over for barley and oats. The culture of wheat has been more extensively followed in this district than, in the opinion of the writer, is consistent with the nature of its soil. But this error has been felt, and is under a gradual correction. Farmers are more impressed with the value of a barley or oat crop than formerly, and acknowledge this agricultural truth, that a fine crop of an inferior grain is more remunerative than an indifferent or even middling crop of a superior. From the operation, therefore, of the causes adverted to, there is a less breadth of wheat sown than formerly. Barley appears to the writer hereof to have taken the place of wheat;—there has been a great demand for chevalier barley. So much, indeed, is it sought, that in very few years none other is likely to be found in this district.

The winter has been unusually severe, from rain and cold winds. The growth of grass is greatly retarded; and the consumption of hay and straw beyond expectation great. The writer has always had a large supply of hay, and been unaccustomed hitherto to use straw for fodder, but in the winter which has just closed, stern necessity compelled a resort to that article. This, however, arose partly from the severity of the winter, and partly from his crops of turnips and Swedes (about twenty-four statute acres) not being so heavy as expected.

Clover (red) has been grown, and is on the increase. The eye is not gratified by such an abun-

dance as may be desired, but still it is greatly on the increase. The quantity of seed annually distributed by the shopkeepers in Carnew, is progressively advancing; and this is a better criterion of the extended production of red clover than any estimate by the sight.

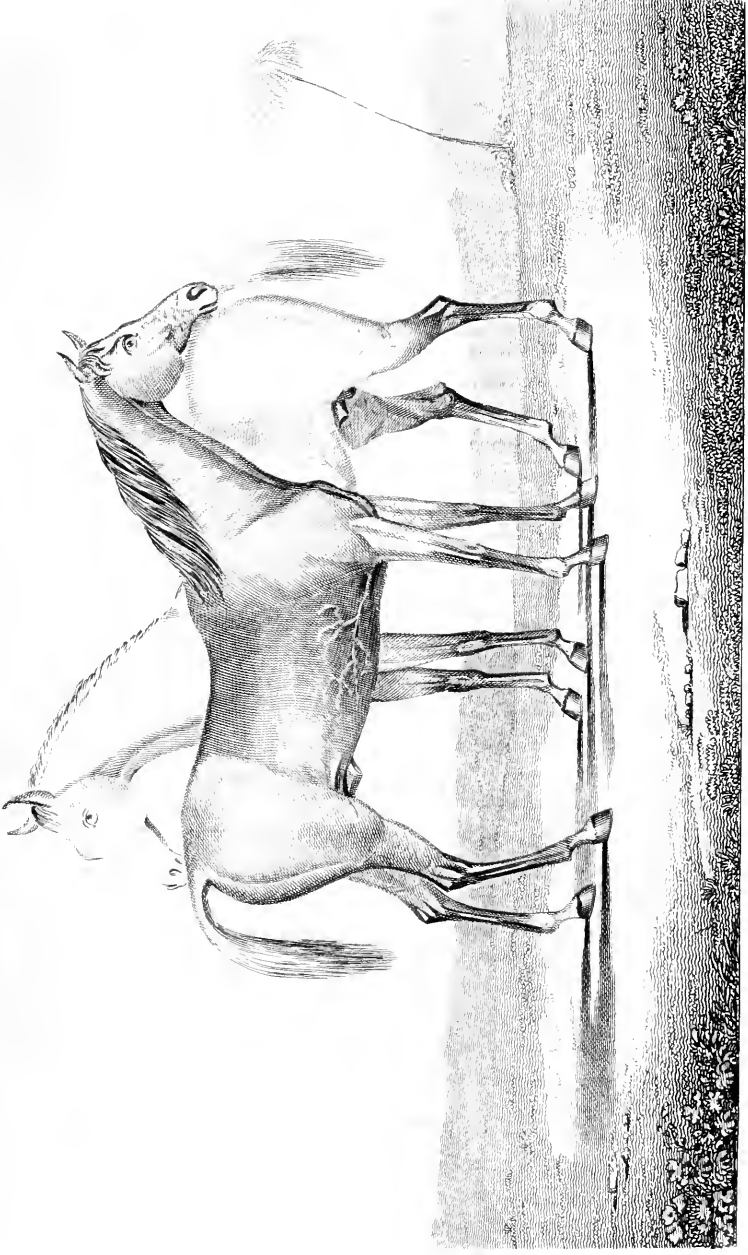
The district alluded to in the foregoing report, comprises the half barony of Shillelah, and the other contiguous parts in the county of Wicklow, and in the counties of Wexford and Carlow.

COUNTY WEXFORD.—I think the wet and cold of this spring have very materially retarded the growth of spring crops; my own rape, of which I have about ten acres, is very scant indeed, and a very general backwardness is evident. The prices of wheat, until this last month, have been so very low, that I think it probable there is not so much wheat sown this year as is usual, but I cannot speak with certainty on this point. The consumption of winter fodder has been very great, and is now very scarce. Cattle are generally very badly off. Turnips are not generally sown about this place. But there are a few small farmers who, by the introduction of premiums for horse feeding, are beginning to see the necessity of green crops, to enable them to keep in their cattle; and I make no doubt the very great advantages of the system will induce others to try it. It cannot be said however, to be generally felt or taken up.

COUNTY LOUTH.—The wet cold spring has so far retarded labour, that half the oat crop is not sown yet, it has also perished much of the winter sown oats, and consequently, they must be sown over again. There is not more than half the usual crop of wheat sown here this season, and our greatest crop formerly was wheat. Hay and straw are unusually dear, the former four shillings and the latter two per cwt, and it is very probable they will be much higher, grass is so late, from the excessive wet and cold. Turnips are not much sown in the immediate vicinity of Dundalk, as manure can be so easily purchased there, but some distance from the town they are sown very extensively—100 bullocks have been fed this season on turnips and potatoes within three miles of me. The great benefit of succession crops is also beginning to be understood and appreciated in this county, and farmers in general embrace that kind of culture. There is not an acre of land laid down in this county that is not sown with clover and rye grass. There is a kind of rye grass seed imported here from Scotland this season, called Italian rye grass, which is sold at £1 per bushel, engaged to cut twice in the season, four feet the first and three feet the second cutting. It has proved itself in Scotland to be a biennial, and they think it may turn out to be a perennial.

I wish to draw your attention to the growth of flax and saving the seed in Ireland. A friend of mine had ten acres sown last year. He let it ripen, and then harvested it like corn. In February he thrashed it; and I never saw finer seed—and an amazing quantity. In the beginning of March he steeped it: from the cold of the water it require a longer time in the water, but when spread on his meadows, it proved as good as a coat of manure at that season, and covered thirty acres of grass land, which will cut a month sooner from the shelter of the flax. We could save as good flax seed in this way in many parts of our neighbourhood, as ever was saved in Holland or America, and I am sure it would keep £200,000 in Great Britain and Ireland every year, which is now transported from us to support other nations. I have this moment in my possession some of the same flax dressed, and although it is what we call blay, it is as fine a specimen of silky flax as I ever handled.





*Arabian Horses*

sent from the Ducourt of Mevrat, to a Peasant by the Marquis de Villars, 1750.



## HIS MAJESTY'S ARABIANS.

(FROM THE SPORTSMAN FOR MAY.)

These animals, consisting of two stallions, two mares, and a foal, lately arrived in this country from the Imaum of Muscat, by whom they were sent as a present to William IV. Muscat, which we find spelt Mascat in our Gazetteer, is represented as "a seaport of Arabia Felix." We believe it is the capital of a province of the same name, and the most fertile part of Arabia Felix, where horses of the highest class are produced. However, before we proceed to describe the animals which form the subject of our present embellishment, we will quote the history of the Arabian horse as given by an elegant writer, a man of unwearied research. Mr. Crichton, Editor of the *Edinburgh Advertiser*, shall speak for himself:—

Arabia has been called the native country of the horse; and certainly if the most valuable conquest of man over the animal creation be that of this noble quadruped, which shares with him the fatigues of industry and the glory of war, no nation merits that distinction better than the Arabs. The care and affection which they bestow in breeding and rearing it, and the decided predilection with which it is constantly regarded, are founded not merely on its utility to them in their predatory and wandering life, but also on an ancient prejudice which induces them to consider horses as beings endowed with generous sentiments, and an intelligence superior to that of other animals. They suppose that these noble creatures, so serviceable in the cause of Islam, have obtained, through Mahomed, the blessing of God and an occult capacity to read or repeat tacitly every day some verses of the Koran. It was one of their old proverbs, that after man, the most eminent creature is the horse: the best employment is that of rearing it; the most delightful posture is that of sitting on its back; the most meritorious of domestic actions is that of feeding it. They were taught by their Prophet to believe that it was originally predestined for their special service. "When God," said he, "wished to create it, he called the south wind, and said, 'I desire to draw from out of thee a new being; condense thyself by parting with fluidity,'—and he was obeyed. He then took a handful of this element, now become tangible, and blew upon it, and the horse was produced. 'Thou shalt be for man,' said the Lord, 'a source of happiness and wealth; he will render himself illustrious by ascending thee.'" The "brood mares" were particularly recommended by Mahomed to his disciples, "because their back is the seat of honour, and their belly an inexhaustible treasure. As many grains of barley as are contained in the food we give to a horse, so many indulgences do we daily gain by giving it."

The care which the Arabs take in classifying and preserving the pedigrees of their horses, to a European must appear almost incredible. The collective term whereby they designate horses in general is *Kohayl* or *Kochlani*; but they commonly distribute them into five great races, all originally from Nejed. Some authors trace them back to the most remote times of Paganism, assigning as their sire the famous stallion Mashour, the property of Okrar, chief of the Beni Obeida. Others assert that they are merely the issue of the five favourite

mares of the Prophet named Rhabdo, Nooma, Waja, Sablia, and Hezma. Whatever be the fact as to these genealogies, history has certainly commemorated from a very ancient period the names and noble qualities of some of the Arabian horses. With the beautiful description of the war-steed in Job (chap. xxxix. 19—27) every reader is familiar; "his neck is clothed with thunder; and the glory of his nostrils is terrible: he paweth in the valley, and rejoiceth in his strength: he mocketh at fear; neither turneth he back from the sword: he swalloweth the ground with fierceness and rage, and smelleth the battle afar off." The famous racers Dahes and Ghabra have been already noticed (vol. i. p. 186), from which it would appear that the amusements of the turf were among the national festivals of the ancient Bedonins. D'Herbelot speaks of the *Kamel el Sanuteyn*, an old work which treats of the keeping and physicking of horses. Another on the same subject, still more curious, bears the title of "Summary of all that can be desired to be learned respecting the different Race Horses." According to the author of this treatise all the breeds already alluded to sprung from a stallion and a mare, called *Zadal Rakeb* and *Serlet Shekban*, which belonged to Muthayer Ibn Oshain, chief of one of the primitive tribes of Yemen. He has given a table which contains 136 races of Arabian horses,—three Persian, nine Turkoman, and seven Koord,—and mentions the *Safenet* as being of the same species with those presented to Solomon by the Queen Sheba. The modern Bedonins repose implicit faith in the traditions of antiquity, and still reckon their five noble breeds to be descended from the stud of the Prophet. The following are their names:—*Taweyse*, *Manekeye*, *Koheyl*, *Saklawye*, and *Julfa*; which according to the vulgar notion, are derived from the different districts of Nejed, where they were born. These principal races diverge into innumerable ramifications. The *Saklawye* is subdivided into the *Jedran*, *Abyryeh*, and *Nejn el Subh*; the *Koheyl* into *Ajuz*, *Kerla*, *Sheikka*, *Dabbah*, *Im Khweysha*, *Khumeysseh*, and *Abu Maarreff*; the *Julfa* has only a single branch, that of *Estemblath*. Besides these, they have various others of a secondary or less-esteemed breed, such as the *Henaydi*, *Abu Arkub*, *Abayan*, *Sheraki*, *Shueyman*, *Hadaba*, *Wedna*, *Medhemeh*, *Khabitha*, *Omeriah*, and *Sadathukan*. The different races have not any characteristic marks by which they can be distinguished from each other. Every mare particularly swift and handsome, with noble blood in her veins, may give origin to a new stock, the descendants of which are called after her; so that the catalogue of distinct races in the Desert is almost endless. The only means of recognising them is by certificates of their genealogy, which are drawn up by the proprietors, and attested by witnesses: in these the issue, both masculine and feminine, are specified with great exactness; so that an Arabian horse offered for sale is usually provided with his title of nobility. The pedigree is often put into a small piece of leather covered with waxed cloth, and suspended round the animal's neck. Burckhardt has given one of these curious documents which he translated from the original hand-writing of the Bedonins. It is as follows:

"GOD.

"Enoch.

"In the name of the most merciful God, the Lord of all creatures, peace and prayers be with our Lord Mohammed and his family and his followers until the day of judgment; and peace be

with all those who read this writing, and understand its meaning.

"The present deed relates to the grayish-brown colt, with four white feet and a white mark on the forehead, of the true breed of *Saklawye*, called *Obeyan*, whose skin is as bright and unsullied as milk, resembling those horses of which the Prophet said, 'True riches are a noble and pure breed of horses;' and of which God said, 'The war-horses, those which rushed on the enemy with full blowing nostrils,—those which plunge into the battle early in the morning.' And God spoke the truth in his incomparable book. This *Saklawye* gray colt was brought by *Khoshrum*, the son of *Emhey*, of the tribe of *Zebaa*, an *Aeneze* Arab. The sire of this colt is the excellent bay horse called *Merdjan*, of the breed of the *Kohey*lan; its dam is the famous white *Saklawye* mare known by the name of *Djeroua*. According to what we have seen, we attest here, upon our hopes of felicity, and upon our girdles, O Sheiks of Wisdom and Possessors of Horses! this gray colt above mentioned, is more noble even than his sire and dam. And this we attest, according to our best knowledge, by this valid and perfect deed. Thanks be to God, the Lord of all creatures!—Written on the 16th of *Saphar*, in the year 1223 (A.D. 1808). Witnesses," &c. &c. &c.

This purity of blood and descent the *Bedouins* are extremely careful to preserve uncontaminated. During twenty days, at a certain season, the mare must be watched to secure her from the approaches of any common horse, which she is not allowed to see even at a distance; for the Arabs are believers in the effects of imagination on the progeny of their cattle. When the foal is produced the same witnesses must be present, and within seven days a notarial certificate of its legitimacy is made out, in which is written an account of the colt's distinctive marks, with the names of its sire and dam. These genealogical tables called *Hujeh*, never ascend to the granddams, because it is understood that every Arab of the tribe knows by tradition the purity of the whole breed. Nor are such testimonials at all necessary in the interior of the Desert, where many horses are of such illustrious descent that thousands can attest their nobility. A *Bedouin* would laugh at being asked by an inhabitant of *Nejed* for the pedigree of his mare; written evidence he never thinks of producing, except when attending distant markets, such as *Bussora*, *Bagdad*, *Damascus*, *Aleppo*, *Medina*, or *Mecca*. A colt, at the moment of birth, is never allowed to drop upon the ground; they receive it in their arms, and so cherish it for several hours, washing and stretching its tender limbs, and caressing it as they would a baby. After this they place it on its legs, and watch its feeble steps with particular attention, prognosticating from that time its future excellencies or defects. The ears are tied together over its head with a string, that they may assume a fine pointed direction: the tail is pressed upwards, and other measures taken at the same time, in order that it may be carried high. The only care taken of the dam is to wrap a piece of linen cloth round her body, which is removed next day. At the end of a month the foal is weaned, and for the space of a hundred days thereafter it is permitted no other food than camel's milk. When that period has elapsed it receives a daily portion of wheat diluted with water. A handful only is given at first; by degrees this quantity is increased; although milk still continues to be its

principal food. This diet continues a hundred days more; and when this second period has expired it is allowed to eat grass, and feed on barley; receiving every evening, along with that provender, a bucket of camel's milk, should the tent happen to be well supplied with it. The *Nejed* Arab gives his colts neither barley nor wheat, but nourishes them with a paste of dates and water; and sometimes to a favourite he will give the fragments or leavings of his own meals. In that province horses are regularly fed upon dates; at *Derayeh* and in *El Hassa* the dates are mixed with *birsim* or dried clover. The wealthier classes often give them flesh, raw as well as hoiled; and sometimes before the commencement of a long journey they get roasted meat, that they may be better able to endure the fatigue. A native of *Hamah* told *Burckhardt* that, in order to prevent a favourite horse from falling into the hands of the governor of that town, he fed it for a fortnight exclusively on roasted pork, which excited its mettle to such a degree that it became absolutely unmanageable, and could be no longer an object of desire to the avaricious functionary. In *Egypt* vicious horses are cured of the habit of biting, by having a leg of mutton presented to them newly taken from the fire; the pain which the animal feels in seizing the hot meat with its teeth teaches it in a few lessons more gentleness of temper. The Arab steed, like its master, is accustomed to the inclemency of all weathers. During the whole year they are kept in the open air, being seldom tied up under the tent, even in the rainy season. The *Bedouins* never rub or clean their horses; but take care to walk them gently whenever they return after a ride. They generally rest in a standing position, and have been known to remain on their legs for years in succession, without lying down. Yet with so little attention to health they are seldom ill. The most prevalent diseases are the gripes, farcy, warbles, surfeit, jaundice, strangles, mange, broken wind, and watery swellings upon the stomach. Burning is the most general remedy. To cure the strangles they rub the tumours with a paste made of barley chaff, and butter; at the same time the smoke of a linen rag dyed with indigo is inhaled up the animal's nostrils, which occasions a copious discharge. In cases of surfeit they bleed the horse's feet, and wrap the skin of a sheep newly killed round its body. They have no use for farriers, except for making shoes, which are of a soft flexible iron, hammered cold, and very small, that the swiftness may not be impeded. They give different names both for fillies and colts every year until the age of four.\* In general they do not allow their mares to breed until they have completed their fifth year; but the poorer class sometimes wait no longer than the fourth, as they are eager for the profits arising from the sale of the foals. The colts are usually ridden after the completion of the second year, and from the time they are first mounted the saddle is but rarely taken off their backs. In winter a coarse sackcloth is thrown

\* So extremely accurate are the Arabs in every thing relating to their horses, that they have invented appropriate names for distinguishing the several competitors in a race, according to their respective merits. Instead of saying the first, second, third, &c. as we do, they call the foremost the *outrunner* of the *outrunners*: the next the *back-presser*; the third the *tranquillizer*; and this distinction they continue as far as the eleventh.

over them, and in summer they stand exposed to the mid-day sun. Their saddles are of wood, covered with Spanish leather; but they have no pommels, instead of which they make use of stitched felt. The stirrups are very short, with flat square bottom, and sharp-pointed corners, which answer the purpose of spurs; the slightest touch makes the animal fly off like the wind, while the rider bears himself upon the stirrups that he may use his lance with the greater vigour. When not employed in war or travelling, they loiter about the tents, often going over heaps of children lying on the ground, and carefully picking their steps lest they should hurt them. They will allow themselves to be kissed and toyed with, or hugged round the neck, without doing them the smallest injury. The different colours of Arabian horses are clear bay (*ahmar*,) brown bay (*adhem*,) sorrel (*ashkwar*,) white (*abiad*,) pure grey (*azrek*,) mottled grey (*raktha*,) bluish grey (*akhdar*,) black (*udhem*,) and dark chestnut (*ulmar mukruk*:) black and light bays (*aswad* and *ashehab*,) are unknown in Arabia, and only found in Persia, Tartary, and Turkey.

In general these horses are of a middle size, of a slender delicate shape, light and active, rather lean than fat, but of surprising swiftness, and accustomed to the fatigue of long marches. They have small ears, little belly, and a short scanty tail. They are almost invariably free from apparent deformities, and so gentle that women or children may manage them. The physical qualities which the Arabs prize most in this animal are the following:—Neck long and arched—head small—ear tapering and almost meeting at the points—eyes large and full of fire—lower jaw thin—muzzle bare—wide nostrils—belly not too broad—sinewy legs—hoofs hard and ample—chest broad—rump high and rounded. Whenever the three beauties of head, neck, and rump are found combined, the horse is considered as perfect. There are several particular marks or natural signs which the Arabs regard as sinister and unfavourable; while others are esteemed the reverse, and capable of producing happiness to the owner. They reckon above twenty evil indications; but the only bad effect they have on the animal is that of depreciating its value by two-thirds or more. The Persian and Turkoman horses, whose figures are much alike, differ from the Arabian in this, that they are more corpulent, and their coat is not so soft to the touch. It is, moreover, an opinion pretty generally received in the East, that the latter are specially distinguished from the others by the repugnance they evince towards clear water; whilst that which is turbid pleases them to such a degree, that they never fail to prance about in any that happens to come in their way. The price of Arabian horses is variable, and often depends much on the caprice of the buyer and seller: in Syria, it fluctuates from 10*l* to 120*l*. A good mare can scarcely be obtained under 60*l*; and even at that price it is difficult to purchase one, as the Bedouins always prefer the female to the males for riding, because they are not accustomed to neigh, and thus expose them in their ambuscades to the risk of detection. For a celebrated mare a sheik will often pay 200*l*; sometimes the price has amounted to 500*l*, and even to 800*l*. The favourite mare of Saoud, named *Koy-raye*, which he constantly rode on his expeditions, was purchased from a Kahtan Bedouin for 1500 Spanish dollars. Kinneir states that 1200*l* was refused for a mare at Aleppo. At Bussorah, where

they form an important article of trade with India, the average price is about 300 rupees, though the cost is thrice, or even five times, as much at Bombay or Calcutta. Over all Arabia, as also in Egypt and Syria, horses are possessed by several owners in partnership: each is divided into a number of shares (*kerat*,) of which several may be purchased by a single individual. If an Aeneze has a mare of remarkable breed, he seldom or never consents to sell her without reserving one-half or two-thirds for himself. The ownership of the progeny is regulated by special contract: the fillies of the first or second years belong to the seller; those of the subsequent years become the property of the buyer. This contract is called "selling the mare's belly;" and in this manner most of the Arabian mares are held in joint property. Sometimes the dam and her offspring are disposed of in equal shares; or on condition that the booty shall be equally divided between the original owner and the man who rides her. As the Bedouins are ignorant of those frauds by which a European jockey deceives his customers, a stranger may take a horse on their word, on first sight or trial, without much risk of being cheated. Niebuhr alleges that no instance of false testimony was ever given in respect of the descent to a horse,—the Arabs being persuaded that they and their families would be cursed should they prevaricate in giving an oath on a matter of such consequence; but the modern Arabs do not scruple to tell falsehoods if they find they can make a better market by it. The affectionate terms in which families live with their horses, will sometimes occasion extreme regret when they are obliged from necessity to sell them. D'Arvieux mentions a Syrian merchant who cried most tenderly while caressing his mare, whose genealogy he could trace for 500 years. Rubbing her with his shirt-sleeves, and wiping her forehead with his handkerchief, "My eyes," he would say to her, "my heart, must I be so unfortunate as to have thee sold to so many masters, and not to keep thee all myself? I am poor, my antelope; but I have brought thee up like my child: I never beat nor chid thee: God preserve thee, my dearest, from the looks of the envious; thou art pretty, thou art sweet, thou art lovely." It may be remarked, that the Arabs have great faith in certain superstitious charms, which they suppose will protect their horses from accidents. They use talismans written on a piece of triangular paper, which are put into a leathern purse of the same shape, and fastened round the animal's neck as a defence against witchcraft from unlucky eyes. A couple of boar's tusks, joined at the extremities by a silver ring, is suspended from their mane, to keep them from the farcy. Though the Arabs justly boast of their horses, it is a common error that supposes them to be very abundant in that country. In the Sacred Writings, and down to the times of Mohammed, they are seldom mentioned; camels being mostly used both in their warlike and predatory excursions. The breed is limited to the fertile pasture-grounds, and it is there only that they thrive; while the Bedouins who occupy arid districts rarely possess any at all. In Nejed they are not nearly so numerous as in the rich plains of Syria and Mesopotamia. In Hejaz they become scarcer; and thence towards Yemen they become fewer still, both the climate and pasture there being reckoned injurious to their health. In the district of Gebel Shammar there are many encampments that possess none at all; in Medina there are none, and in Mecca

there are perhaps not more than sixty in the possession of private individuals; so that the estimate of Burckhardt is perhaps correct, when he affirms that from Akaba to the shores of Hadramaut, comprising the great chain of mountains and the western plains towards the sea, the amount of horses is not more than 5000 or 6000; while the aggregate number in the whole peninsula does not exceed 50,000,—a number far inferior to what the same superficial extent in any other part of Asia or Europe would furnish. The rich pastures are not only stocked more abundantly, but likewise produce the finest and most select race. The best *Koheyls*, of the *Khomse*, or noble breed, are found among the Aenezes and the Rowallis in Nejed and the Hauran, towards the Euphrates. They are not all of the most perfect or distinguished quality; and perhaps not above five or six in a whole tribe deserve the name of first-rate in respect to size, bone, beauty, and action. But still their numbers are considerable; each of which may be bought, if purchased in the Desert, at from 150l to 200l. Taking the comparative excellence of the different races on an average, Nejed is generally reckoned to produce the noblest; Hejaz, the handsomest; Yemen, the most durable; Syria, the richest in colour; Mesopotamia, the most quiet; Egypt, the swiftest; Barbary, the most prolific; Persia and Koordistan, the most warlike.

In perusing the following account of the Arabian horse from Commodore Porter, let the reader bear in mind, that it originated at Constantinople, and was at length wafted to us from the Western Hemisphere: it has been a traveller, and some parts of it certainly approach the marvellous. However, as it will give variety to a subject upon which much has already been said in various publications, (generally by persons ignorant of horseflesh) we hesitate not to give it place in our columns.

#### GENUINE ARABIAN HORSE, HOW DISTINGUISHED.

The following, on the subject of the Arabian Horse, we copy from a late Number of the *American Turf Register*. It is an extract of a letter from Com. PORTER, our Chargé d'Affaires at Constantinople, to the editor, and describes the mode of distinguishing the genuine Arabian. There was one in this city a few weeks ago, which was found to possess many of the points mentioned in the Commodore's description, though otherwise as ugly and ill-formed a horse as can be well imagined.

"About a month since I saw a singularly beautiful light chestnut horse, standing in my yard; no one was holding him. His bridle was laying over his neck, and the person having charge of him was standing behind him, plaiting his beautiful long silky tail, which trailed on the ground. He appeared to be full of life, spirit, and intelligence, and as docile as a dog.

"There was something so fascinating in the appearance of this animal, something so gazelle-like, that I was determined, if he was for sale, to purchase him, *coute que coute*. His age I ascertained to be a little over seven years. He had come from the city of Sulimanich, in Koordistan, which is a province bordering on Persia on one side, and on the other side by the Pachalic of Bagdad, which latter borders on the Great Desert

of Arabia. The horse belonged to an Agha, who had recently arrived from thence: he said the horse was a little sick, and would not eat; and that as the Agha was compelled to return immediately, he had offered the horse for a sum which no one, knowing the value of a Koordistan horse, could refuse to give. I finally closed the bargain for the horse, adding a present of two hundred and fifty piastres to the groom. After trying the horse under the saddle, and approving of his gaits and fleetness, I sent for the Sultan's farrier, who, the moment he saw the horse, pronounced him not only a pure Arabian, but a beautiful one, and said that he had seen but one so pure before in his life.

"I now sent immediately to the Agha, to request him, if in his power, to give me the pedigree of the horse; he sent me word that he did not know the pedigree, nor did the person from whom he bought him; that the Koords, when they stole a horse, stole only the best, and did not stop to inquire after the pedigree; but if I wished to satisfy myself that the horse was of the pure Arabian breed, I must examine his neck, on both sides of which I should find a beautiful natural tree projecting upwards from halfway down the neck, and that I should find spurs on his fetlock joints, both of which were certain indications of the purity of his blood.

"About half-way down his neck, a few inches from the mane, on both sides, I found a dark spot, rather larger than a duck-shot, destitute of hair; but around these, to the size of a dollar, the short and silky hair made several eccentric turns, then shot up towards the ears in the form of an ostrich plume; nothing can be more beautiful.

"On examining the fetlocks, I found that he had on each of the fore a spur of two inches long, of the size of the little finger at the root, gradually tapering to a point, and turning up like those of a cock. On the hind fetlocks were the same, but not more than half the length; all were slightly fringed about the root, with soft silky hair.

"On being satisfied of the value of this horse, which circumstances had placed in my possession, I told the doctor to go to work and cure him, if possible. He felt the pulse of his legs, then examined his mouth, and felt his ears, and turning to me, said he had the *guenz keniack*, which when translated, means the *eye bone*, or *bone eye*. Never having heard of such a disease, I asked him what it was: he thrust his finger into the lower part of the horse's eye, and turning the lower lid wrong side out, desired me to feel of it. I did so, and felt a hard bony substance; the lid was much inflamed. He now thrust a needle with horse-hair through the black rim of the inner lid, and pulling out the eye, cut therefrom the bony substance. The eye bled perhaps a half-spoonful; he performed the same operation on the other eye; after which he blew up each nostril, through a short reed, about a spoonful of burnt alum and black pepper, which brought on a violent sneezing. He then directed that some garlic, vinegar, and salt should be mixed with a kind of red earth, which had the appearance of red ochre, and that his mouth should be washed with it three or four times a day, for four or five days; he next scarified his mouth, and put him into the stable. We have followed his directions, and the horse, that for a long time past would not touch barley, now eats it freely, and is to all appearance well.

"This disease, and the mode of treatment, is to

me altogether new—it may not be so to others. From the inquiries I have made, I am satisfied that in ten days more, the horse would have been ruined—the farrier said he would have been in five. The disease, it is said, is brought on by straining their eyes in anxious watching for their food. A Turkish horse is doubled-haltered to both ends of his trough, so that he cannot turn his head, which, of course, brings a great strain on the eye when he wants to look on one side or the other.

“I have measured this horse from the shoulder to the ground; he is exactly four feet nine and a half inches high (fourteen hands one and a half inches high). Those who know Eclipse, say that this horse is a highly flattering likeness of him. I shall keep the horse, although I have been strongly advised to send him to America; but I am apprehensive it might turn out like many—nay, I may say all—such speculations. But if you know of any one who wishes this horse, they may write to any disinterested person in this country to examine and report on him, and then we will agree on the terms.

“I am now satisfied there is not another Arabian in Constantinople; the Sultan's horses are generally spotted, very fat, and very spirited; they look extremely well with their trappings on; but I am assured that he has not a pure Arabian among them.”

Many persons have visited Arabia, and as the horse formed the most interesting characteristic of the country, so those who have given accounts of their travels through the medium of the press, have uniformly made the present subject a prominent feature of their publications. But, as it requires considerable practical experience before a person is capable of forming anything like a correct opinion of this elegant quadruped, and the writers not possessing the requisite knowledge, it has unfortunately happened, that the descriptions which have thus reached us, though substantially true, are disfigured by many improbable and erroneous episodes, as well as with numerous distorted facts. We have never yet met with a writer on Arabia, or those countries where the Arabian variety of the horse is found, who was capable of describing him in a proper manner—who could give his points, &c., from the eye of a well practised observer. Hence have arisen many false notions and much absurdity. Even Bruce, though he professes to have been a very superior equestrian, evinces the most egregious ignorance upon this subject in the trifling information which he has attempted to convey to his readers. However, the animals whose portraits embellish our present number, we saw, and we write what we have to say from careful observation.

Through the prompt and condescending politeness of Colonel Wemyss, we obtained permission to view his Majesty's newly-arrived Arabians: for which purpose we reached Hampton Court on Wednesday morning, April 6, and derived a high gratification from the opportunity thus afforded of looking these interesting strangers well over.

Up to this period, we had entertained

doubts as to the existence of a *black* Arabian horse. It is true, Smolensko was denominated a black; but on a close examination, the number of white hairs intermixed in his coat, constituted him, strictly speaking, a dark grey. Sir Hercules, though called a black, was evidently a dark grey. We have more than once seen black racers, certainly; but yet we thought the colour must be derived from the baser breed originally used in the cross. However, all our doubts have been dissipated; as the animal whose portrait appears in front, (in the engraving) is not only a black Arab, but a genuine horse of the very highest class: indeed, it may be said he has been bred too fine; that is, he has been produced from a stream so long continued unmixed in the same family, that though he shows as much breeding as possible, he has suffered in bulk and strength.

The head of this black Arabian is remarkable for the elevation and capacity of the nostrils, as well as for that general beauty of its form which so pre-eminently distinguishes the horse of the Desert. However, this animal is not, as the papers represented, absolutely destitute of white: on the contrary, he has two white feet, one before, and the other behind, with a little white in his face. What ever might have been our previous incredulity respecting the existence of a genuine black Arabian horse, we now feel satisfied that the horses of Arabia are varied in colour much in the same manner as our racers and our horses of superior breeding: indeed we have seen grey, chestnut, bay, brown, and black.

The black Arabian under consideration is a well formed horse, whose *tout ensemble* reminded us of the celebrated Dr. Syntax, (bred by the late Mr. Ridsdale, and winner of more gold cups than any horse which ever appeared on the turf,) particularly in his hind quarters. His pasteris were uncommonly long, the effect of his blood having been too long continued on the same strain. Such a formation may be, and undoubtedly is, favourable to speed, but must very much weaken the part, and render the animal very liable to break down. Like all Arabians which have fallen under our observation, his legs handled like ivory, presenting also that extraordinary development of the tendon for which this variety of the tribe is so very remarkable. Further, like the rest of these exotics, his feet were well formed; and, at the same time, he manifested a good-tempered playfulness of disposition, which we have uniformly found to be the case with all those Arabians which have fallen under our notice, and in which all travellers agree in stating to be a general characteristic. Shebdeez was, however, as vicious as possible: it was not without some difficulty, aided by the assistance of the groom, that we were able (some years ago when in possession of John Formby, Esq.,) to stand up to him. But Shebdeez, though represented as an Arabian, and presenting some of

the characteristics of the class, was not a truly bred horse: he was much larger in every respect than the genuine Arab, without the wiry elasticity of the latter: in fact, he was a Persian horse, sent from that country by Sir Gore Ouseley, when ambassador from England; and, therefore, as it is well known the Persians admire a larger horse than the genuine deer-like animal of the Desert, they are under the necessity of introducing base blood for the accomplishment of their object; but though they thus procure a larger animal, it is at the expence of activity, and, as it would appear, of good temper also. Forming our opinion from what we have seen, as well as from what we have read on the subject, we feel no hesitation in stating, that Arabian horses, generally speaking, are as remarkable for good temper as for their elegance of form, and light elastic, deer-like movements. To speak as an English fox-hunter, we should say, they cannot carry weight; and yet how admirably are they adapted for the people amongst whom they are produced. The Arab, like his steed, is sinewy, light, and elastic; and as he seldom rides more than nine stone, and frequently not so much, it may be correctly remarked, that the horse and the man are admirably calculated for each other.

The second figure in the plate is the portrait of a bay horse, somewhat larger than the generality of Arabians, being as near as we could guess, about fifteen hands high. Though considerably larger than the black horse already mentioned, he is not so handsome, if we except his quarters, which are powerful, well set in, and altogether very finely formed. He has black legs, and four white feet. He has a finely formed head, with a beautiful prominent eye; his neck is long, and not quite so handsomely fixed in the body as might have been wished; the lower part of his shoulder rather coarse and heavy; middle piece (carcase) long, loins loose: however, it must not be forgotten that these animals had endured the very narrow confinement of a ship for the tedious period of six months; they had scarcely "an ounce of flesh on their bones," and were consequently seen under the utmost disadvantage: nor have we the least doubt, when this bay stallion has acquired what is well understood by the term *condition*, that he will come under the general description of a splendid or magnificent horse.

The ears of these Arabians were larger than those of any other Eastern horses which have fallen under our observation: they reminded us of the Orville family of this country, the greater number of which were remarkable for large ears.

Portraits of the mares will be given in our next number, when we shall embrace the opportunity of offering a few observations on the re-introduction of Arabian blood into a thorough-bred horse, through the medium of the female.

## ON BREEDING AND BREAKING RETRIEVERS.

As I believe I am peculiar in my system of breaking these dogs, and as I think very successful, I beg to offer these hints to your readers for consideration. I wish the dog to be broke, to be a year and a half old, never to have fetched in his life, never to have been taught anything, of any sort; I then can to a certainty, make him the tender-mouthed dog to bring game; and if his nose and perseverance is good naturally, he will be a fine finder and a tender-mouthed retriever. I have always found those dogs who are most curly, most sagacious; that there is no one breed of dog called retrievers, no body can deny, nor I believe can a retriever be bred to a certainty; he may turn out well, or ill, although his sire and dam are first-rate, yet I would prefer getting a pup from a good sire and dam as retrievers, but particularly the dam. I am of opinion the Irish water spaniel is the most sagacious sporting dog with the highest courage, and finest nose we have, if of good blood; but like all high-bred animals, a dash of curish blood quite alters the character of the dog, either to the eye, or for use. I once had a very fine dog of this breed, of a deep liver-coloured brown, with a close short curly coat, smooth pate, and great bone; he would take my shot-bag home, get it filled, bring it back, or take it to the keeper if he was out beating a cover, get it filled and bring it back, and nothing would divert him from his purpose; if a pheasant was to fall just before him, he would take no notice at the time, but afterwards go and fetch it. Once when on the sea coast, a small, badly-formed, and leaky fishing boat, was cast on shore, on a bad reef or rocks; three men, and a boy of ten years old, were the crew; the three men swam on shore intending to see if some assistance could be given to the boy afterwards, but they got so bruised against the rocks, they were all unable to afford any themselves, and as the gale increased no person could be found to venture out in any way. I heard the noise, went to the spot with this dog: the poor little boy stood every chance of being drowned in a very short time, if something was not soon done; so I sent my dog, who went in, I must say, more like a seal than a dog, and after several fruitless attempts to mount the wreck, he succeeded, laid hold of the poor little boy, he clinging to the wreck and in the most horrid way screaming at being dragged into the water, in which he could not swim. The waves dashed on the rocks most frightfully. In the anxiety and responsibility of the moment, I thought the dog had missed him. I stripped off my clothes, resolved never to return without the poor fellow, tormented as I should ever be, with the conviction of having hastened his death, to use the mildest terms. I was just in the act of jumping in, having picked out a moment when the receding waves would have given the best chance of getting off, after having expended their fury

on the rocks, when—to express my ecstasy would be impossible—I saw old Bagsman (for that was his name) with the struggling boy in his mouth, his head uppermost. I jumped to the spot, where he must land, a sea at the right moment bore the boy and dog into my arms, without a scratch. Some spectators laid hold of me, or the wave receding would have taken us all back again. I took the boy to his father, the scene of joy was the most moving thing I ever witnessed. Poor Bagsman fell a victim while trying to save a drunken man from a watery grave. I was staying at a small cove in the west of Ireland, for wildfowl shooting, and had that day gone to a magistrate, to get a permit to buy gunpowder, without which nobody could buy a grain (ten years ago). I left my dog at home, to get a little rest from his hard work. A drunken man in a frolic, pushed off in a boat with a girl in it, the tide going out soon carried the boat out; he got frightened, could not swim, but jumped over-board. Bagsman, who was on the spot hearing the splash, jumped in, swam out to the man, caught hold of him, and brought him twenty or thirty yards towards the shore, when the drunken man clasped the dog tight round the body—the dog could do nothing; they both went down together, and never rose again. The girl was saved by a boat going to her assistance. The body was recovered about one hour afterwards, with the dog clasped tight in his arms; so it was quite evident if the dog had not been squeezed to death, he would have saved the man. Alas! poor Bagsman.

I am now going on to the breaking the retriever, as this is a subject I never saw fully described. I will now give you an instance of rather a difficult-to-be-broke dog, but who has turned out, I think, first-rate. There are several things necessary in a dog that it is intended to take the trouble to break for this purpose; and I fearlessly assert, that it will take two seasons before he is a perfect dog; other dogs require only a few months to be perfected. The things requisite are, that you should like the dog; that he should like you; that he should be so handsome, you will not get disheartened at his progressing slowly; that he should like the water; that he should run a hare or other game; that he should be size enough to bring with ease a hare over a wall, or hurdle; that he should be attentive to the word of his master; that he should not exceed two years old, nor less than one year. I decidedly object to dogs who have been taught to fetch and carry, because they are generally so hard-mouthed, they are only fit to catch rats oftentimes. I have had my game mashed to pieces when I particularly wished perhaps, at the request of some pretty girl, to get a little game for her mother's party, and when every bird is worth a world to me. Having for a certain period of my life been obliged to make all sorts of shifts, I determined no longer to do so, with a retriever. So got a fine two year old black curly Newfoundland dog, at least that is usually called so by common dog-fanciers;

he was too savage for the owner, so I gave the servant one pound for him. I put a leather collar round his neck, then fastened the collar of a pair of couples round my leg, just below my left knee, not to interfere with the gun, in my right hand. The other collar I passed round the collar on the dog's neck, and buckled it to the longest hole; here then the dog is coupled to my leg. In this way I went out shooting with him, taking care he did not tumble me over the fences, by holding him with my left hand, while fencing, and lifting him at the moment. I took out the spaniels in low cover, and hedgerows; every time the gun went off, the dog at the report tried to bolt, but could not, and trembled like an aspen leaf. I took him up to the rabbit or whatever I killed, but he would take no notice of it. I put the game in his mouth every time, held his jaws together, and made him walk about still tied to my leg, holding his mouth shut on the game, with my hand. This went on for a week, the only difference was he began to jump his fences with me quite well; he then began to smell the birds, and then I walked past them without stopping, so by degrees the dog began to lay hold of them, and by degrees having so little time to stay, he picked up the game at once, (of course I patted him constantly,) and brought it along with him. I immediately patted him, caressed him, and for the first time gave him some toast, dipped in grease, as a reward; this he liked very much indeed. About this time he began to give up all symptoms of fear on the gun going off, and began to pick up his lost flesh, this was about the 16th day; from this he rapidly advanced, when he would pick up the game at once, while fastened to my leg. When perfect in this, I began to let him go after it, and when he picked it up, I never looked at him, but walked away, calling him until I had him at my feet; then I gave him a bit of toast, and caressed him, buckling him up again to my leg; in this way the dog improved every day; he was so light-mouthed he hardly held the birds tight enough to prevent many of them escaping. As I wished him as well as all my dogs to down charge, I never let him go after the game, until I had loaded. About this time he picked up his courage, snarling at any dogs who ran up to the dead birds, &c., but as yet he did not bite them. About this time I shot a wild goose, which fell into a lake only wounded, he swam a little way into the lake, but returned without going up to it. He had always been the torment of the village ducks, now would not face a goose; it was evident a perfect change had been wrought in the dog. I ordered the spaniels in, who had up to this moment "down charged," at the word they jumped up, and into the lake, this was before Porter (for I must now christen him) had come to shore; he did not turn back, but came on shore. At this want of courage, as I then thought it, I was very disheartened, and would have given him away to any one. But mark this, those who want perseverance; the spaniels worried the

goose hard, and it kept going over to the other side, fighting well. When it had nearly got on shore, I ran round; this put Porter's courage up. When we got there, I let go the dog, he jumped in, and catching the goose by the neck, while she was in the act of aiming a peck at his eye, he proudly bore her on shore. From that moment he has hunted the water as well as the land; this was about the 25th day, but it was deep into the second season before he was steady, when he saw me knock over a bird or rabbit; that is to say, before he would stop until I sent him for it. It was a long time before I could get him to obey signals from my hand, or word of mouth, such as forward, back, to the right, to the left, with a wave of the hand, in that direction; but now he will turn in the desired direction merely by word of mouth; he is so good that I would be bound not to lose a bird of my own shooting of any sort in a season, either on land or water, in the day time; he will go 300 yards a-head in any direction, and would then work by signals from me in any direction, and find his bird. This is what I call a great trial of a retriever,—not any of your cockney dogs, going back after a stick or glove, or finding his master's hat out of twenty others. I never wish to see a retriever pick up any thing but game; although I have given an instance of one who did; but then he was one in one thousand. I do not think this dog would save a man in the water—he is too tender-mouthed—unless the man had clothes on, I do not think he would bite the flesh, although when I got him he used to kill sheep and bite any poor man or woman he could get at. This is not the first dog I have broke in this way by any means; but, as it is the last, I recollect better what I did with him. My next letter will probably be on the Irish system of breaking the Irish setter.

RED ROVER.

## THE KITE.

(FROM JOHNSON'S GAMEKEEPER'S DIRECTORY AND COMPLETE VERMIN DESTROYER.)

We now come to a tribe or list of creatures, which are as destructive perhaps to game as those already enumerated, though they seek it in a different manner: the former pursue their prey by scent—these by sight.

The kite may be regarded as the largest of the predacious birds known, or at least which breed, in this country; and it may be observed that all birds of the hawk kind are furnished with a large head, and a strong crooked beak, notched at the end, for the purpose of tearing their prey. They have strong short legs, and sharp crooked talons for the purpose of seizing it. Their bodies are formed for war, being fibrous and muscular. The sight of such as prey by day is astonishingly quick; and such as ravage by night have their sight so fitted as to discern objects in the gloom of evening with astonishing precision.

Thus formed for war, they lead a life of solitude and rapacity. They inhabit by choice the most lonely places, and the most desert mountains. They make their nests in the clefts of rocks, in trees, on the ground, in mouldering ruins, &c. Whenever they appear, it is only for the purposes of depredation, and they may be regarded as gloomy intruders on the general joy of the landscape.

They are fierce by nature, and this fierceness extends to their young, which manifest a disposition for carnage from the earliest periods. Other birds seldom forsake their young till they are able completely to provide for themselves, and are nearly full grown; the hawk tribe drives them off at a period when they should still protect and support them.

All animals that, by the conformation of their stomachs and intestines, are obliged to live upon flesh, and support themselves by prey, though they may be mild when young, soon become fierce and mischievous by the very habit of using those arms with which nature has supplied them. As it is only by the destruction of other animals they can subsist, they become more furious every day; and even the parental feelings are overpowered by their general habits of cruelty.

Another effect of this natural and acquired severity is, that almost all birds of prey are unsociable and solitary. Like the wild cat and the weasel tribe, they lead a lonely life, and are only united in pairs by that instinct which overpowers for a time their rapacious habits of enmity. Except at certain periods, they usually prowl alone; and, like robbers, enjoy in solitude the fruits of their plunder.

All birds of the hawk tribe are remarkable for one peculiarity which seems to distinguish them, not only from the rest of the feathered tribes, but perhaps from the whole of animated nature. All the males of these birds are less and weaker than the females.

The kite may be distinguished from the rest of the rapacious tribes which infest this country, by his size and his long forked tail. He appears to use very little exertion in the act of flying; and with a slow sailing motion seems for ever on the wing. As almost every bird of the air is able to make good its retreat from him, he may be said to live upon accidental carnage. He may, therefore, be considered as an insidious thief, who only prowls about, and when he finds a bird wounded or disabled, instantly seizes it, and, like a famished

ENGLAND IN 1835 (BY VON RAUMER).—Von Raumer makes some pertinent observations on what is called agricultural distress:—"Admitting that the distress exists, it however does not exist in England only, but in many of the countries of the continent. The causes therefore cannot be exclusively English; they cannot lie entirely in poor-rates and malt-tax—in the relative situation of the farmer and the manufacturer—in corn laws, &c., for the farmers and landowners on the continent who complain are little, or not at all, affected by these evils. Let us say, therefore, plainly, wherein the common error lies, and whence the similar disorder arises. Not only was a temporary state of things, which forced the produce and the prices to an unnatural height, supposed to be permanent, but people speculated even beyond this height, and bought or rented estates accordingly. And they did not only buy and rent with their own money, but with that of others, borrowed at high interest, and at the very outset ordered their household, (a mode of life in direct contrast to their ancient simplicity), as if money would never be wanting for all these extravagant expenses. Here lies the true root of much of the misery, and of the greater part of the complaints. But no legislation can avert the consequences of false speculation, nor ought it to regulate its measures according to the wishes and wants of improvident bankrupts."



glutton, is sure to shew no mercy. Kites will pounce upon young chickens, young ducks, and young geese, whenever an opportunity offers; and are very destructive to game—they not only destroy the young of winged game, but the old birds also if they can catch them, as well as rabbits, young hares, &c. I never saw them attack an old hare; though I have no doubt if they found one wounded or disabled, they would not fail to seize it.

The kite, called in some parts the glead, and the ring tail, and erroneously the goshawk, appears larger than the buzzard, but is not so in reality—it has a much longer tail, a greater expanse of wing, but does not weigh so heavy. It is of a brown-grey colour, and is altogether a handsome bird. Its sight, like the whole of the tribe, is remarkably quick; and though a bird of very slow flight, it will dart down upon its prey with the rapidity of lightning, as I have many times witnessed. It is found in woods, but more commonly seen upon forests, downs, moorlands, marshes, and fens. When shooting ducks, &c., upon marshes or fenny places, I have known these birds attend the sportsman, as it were, and if a bird happened to be so wounded as to get beyond the reach of the shooter, it was pursued and made a prize of by the kite. In fact, the kite is a general prowler, to whom scarcely any thing seems to come amiss. I have watched them for hours, (particularly on Charnwood Forest) I have seen them sail round and round a flock of geese, where there were small goslings, and watching their opportunity, they have seized one and borne it away.

However, as these birds are forever on the watch for their prey, so are they also for their enemies: as if, knowing themselves to be thieves, and that they have no friends, they will not suffer the approach of the shooter, unless by accident: and therefore other means than the fowling-piece become necessary for their destruction. They form their nest upon the ground, amongst rushes, &c., and I have known them to trim up the old nest of a crow and deposit their eggs in it. Their nests should be sought and the eggs or the young destroyed, and perhaps an opportunity may be offered for killing one or both the parent birds.

When the kite finds a covey and springs them, he is not able to catch any of the birds by swiftness of flight: he, however, pursues as fast as he can, springs them again; and after the second or third flight, the birds become so fatigued as to fall an easy prey.

To secure this marauder, set a few traps in his regular beat, baited with a small rabbit or a bird, and he is sure to be taken. In champaign countries, *bird bushes* should be made half-a-mile asunder: what is meant by this expression is, a large stake is to be driven into the ground, and left seven feet high:—bushes and boughs are to be laid round this post, and kept hollow at the bottom to the extent of ten yards, for the partridges to run under. Many coveys will be driven into these bushes by the kite, who will fly round the bushes for a few turns and then alight on the post, where there must be a trap let in ready to receive him.

There is no better trap than the common warren iron trap:—it should be about eight inches square, not round; as a square trap will catch with much more certainty than a round one. For the kite set the trap against a bush which extends a little, so that you may place the end of it against the bush, and that the trap may be somewhat flanked by the bush, that he must walk on to it.

Bury the trap lightly, and fasten a piece of bullock's lights, a piece of rabbit, or almost any thing of a similar kind, not to the bridge of it, but beyond it, so that he may walk on the trap; then scatter about two handfuls of feathers round and over the trap; the feathers will allure him down from a great height, he supposing some bird lies there killed.

BEES.—Mr. Savage writes—"After thirty years close attention to, and practical experience in the cultivation of Bees, as one result of the lengthened acquaintance with the habits and wants of these indefatigable insects, I have invented an improved hive, which I trust with good grounds, may justly be denominated *The Preserver and Remunerator Hive*, and which several experienced apiarists, (to whose testimonials I could refer) have considered that it would require no mean effort of ingenuity, to point out any material improvement. It is so truly simple in its construction and arrangement, that any way-faring man, or industrious cottager, may most easily comprehend its utility and management. The hive is composed of wood and glass, and necessarily requires to be well framed and put together, and if neatly painted, or grained to imitate any fancy wood, will form a handsome ornament to the apiary, nor will it confer any disgrace upon the drawing room of the more distinguished amateur. From its singular structure it is admirably adapted (at that particular season of the year which is most favourable for the diligent cultivation of these interesting pursuits) to afford the greater facility for the study of the internal economy, and equally so of the wise laws which regulate the well ordered commonwealth, that it not merely contains, but unfolds and displays to the eye of the admirer in every progressive state. Another most important advantage is, that from the peculiarity of its formation, every particle of superfluous honey may be easily abstracted at the precise moment that may be fixed upon, without the necessity of destroying so much as a single bee; neither is it possible that the parent stock belonging to the hive can be unjustly deprived of the sufficient store that they have there deposited, either for their more immediate or winter sustenance. Such also is the extra accommodation afforded, that the bees, instead of being compelled to remain idle for want of space, can continue their labour during all parts of the season, that may prove suitable for the in-gathering of honey, and though they work unceasingly, will always find capacious receptacle for the produce of their industry; and it is a well known fact, that honey gathered rapidly, (very often in a few weeks) is of a more pure and delicate nature, and essentially of superior quality, to that which is collected and crowded together in the common hive.

POA NERVOSA OR HUDSON'S BAY MEADOW GRASS.—We have to direct the attention of our agricultural readers to a new grass of this name which has been brought to successful cultivation by Mr. Bishop of Methuen Castle. A specimen was exhibited in Mr. Turnbull's seed shop last Friday, mown off cold damp land, averaging 18 to 20 inches length of stem, showing all the freshness and verdure of midsummer. From an examination of the plant much of its value seems to arise from a very singular property it possesses, which is common to no other grass cultivated in this country, viz.,—that of the flower stem, after being cropped, reproducing from the stem as well as the root. By this means it reproduces its waste the whole season throughout. Nor are its properties for winter pasturage less valuable, as the remainder of the plant, unconsumed in summer, continues filled with nutritive matter under the greatest severity of winter.—Mr. Bishop is well known as a successful cultivator of new grasses, and we have no doubt this new variety he has introduced, will be of the greatest service to the graziers, as well as agriculturists in general.—*Perth Courier*

## CAUTIONS ON TILE-DRAINING.

SIR,—As tile-draining for agricultural, as well as for other purposes, seems to be coming into general use, I am desirous of suggesting, through your paper, a few cautions to such persons as may be disposed to adopt the practice; which, if attended to, may save them from much disappointment and unnecessary expense, and also be the means of preventing a most valuable improvement from falling into disrepute, through imperfection in the mode of executing it.

It may be right to premise, that the following remarks are not intended to apply to drains cut in land abounding in springs, and where, consequently, there is reason to expect that constant streams will be running through the drains, even in the driest season of the year. For land of this description the present practice may be sufficient, and may require no material improvement. But where the springs, if any, are so weak as not to insure at all seasons a constant flow of water through the drains, or where the superfluous moisture which is to be drained off is nothing more than rain water fallen on the surface, and prevented penetrating into the earth by a retentive sub-soil; in these cases, which comprehend a large proportion of the land of this kingdom, the drains which are cut, though in full operation, and pouring out abundant streams of water during the rainy season, will gradually cease to flow in the spring, and, as summer advances, will become perfectly dry; and these are precisely the circumstances which require from all persons engaged in tile-draining, who look to the permanency of their improvement, a much greater degree of care and attention than appear hitherto to have been bestowed upon the subject.

In draining all soils, with the exception above mentioned, namely, where there are perennial springs, the principal point to be attended to is this,—*on no account to trust to arched tiles alone*, but always to place flat or bottom tiles under them, taking the greatest care, in laying them down, that the tiles of both descriptions unite as closely as the usual unevenness of their edges will allow; so that, though ample space will be left for the water to find its way into the hollow of the drain, by means of the interstices occasioned by this unevenness, every thing which may obstruct the free passage of the water through that hollow will be effectually excluded.

It is true, that for a long time past flat tiles have been occasionally employed in draining; but their chief use does not appear to have been understood, and consequently has not been insisted upon even by writers of great intelligence and experience. Mr. Loudon, for instance, in his "Encyclopædia of Agriculture," No. 4,286, seems to consider the principal, if not only, use of flat tiles in draining to be to serve as supports to the arched tiles, and prevent their sinking; his words are, "In very loose soils plain tiles are wanted to place the draining tiles on; in other soils, old broken pieces of plain tiles are sufficient for the ends to rest on." Mr. Howard also, in his able and instructive "Report of Farming on the estate of Scoreby, in Yorkshire, published under the Superintendance of the Society for the Diffusion of Useful Knowledge," has an observation to the same effect:—"In some places (he says), where the land is particularly springy, and inclined to bog, it is necessary to lay down flat tiles as a foundation, to prevent the drain tile from sinking; but this is often found needless, and there are usually a few broken tiles

ready to be applied to any suspicious parts." That Mr. Howard was aware, however, that there may be another use for these flat tiles, besides that of preventing the sinking of the arched tiles, is evident from a remark immediately following the passage now cited. "Where the flat tiles," he adds, "are used, the great enemy to under-drainers, the mole, is effectually prevented from doing mischief."

I now proceed to state the circumstances which led me to discover the absolute necessity of carefully attending to the caution above mentioned, in order to guard against the injuries which may otherwise be occasioned by this great enemy to under-drainers.

In the year 1827, having determined to drain a few acres of land which had recently come into my possession, I was induced, in consequence of the difficulty of procuring stone, to make use of arched draining tiles, which I had seen employed for that purpose in Shropshire, and some of the adjoining counties, but which had not at that time made their way into the district in which I reside. I accordingly gave the plan and dimensions to the proprietor of a neighbouring brick-yard, and soon obtained the quantity I wanted. As a security against the *heavings* of the mole, which I had observed to be frequently very injurious to the open gutters in our watered meadows, I had flat roofing tiles laid along the bottom of the drains, and upon them deposited the arched tiles. A quantity of bean haulm was then placed upon the tiles; and, for want of stones, which would have been preferable, a layer of the same haulm, three or four inches thick, was set upright against the *upper* side of the drain; that is, the side next to the higher part of the field, and through which the water enters the drain, and held in that position by a boy pressing against it with the head of a rake, whilst a man returned the vegetable mould on looser materials into the drain. The retentive clay, which formed the subsoil, was left to be carted off.

For various reasons, I had made choice of a dry season of the year for this operation, and during the progress of it, and for some time after, there was scarcely a drop of water seen to issue from the drains. But when at length we had a heavy fall of rain, I was naturally anxious to ascertain whether a practice, which was then quite new to the district, was likely to answer; and, upon proceeding to the spot, I was much gratified to find that the mouth of every drain was pouring out a considerable stream. This continued for several days; at the end of which, as no more rain had fallen, the streams gradually diminished; and, at last, entirely ceased; and I had the pleasure to see the ground soon become dry and firm, which would not have been the case, before the drainage, in less than a month; and, probably, if there had been frequent falls of rain, not during the whole winter, nor till late in the spring.

My drainage had been completed before the middle of September, 1827, and nothing could succeed better than it appeared to do during the whole of that autumn and following winter; and I was led to infer from the dryness and firmness of the ground, and the improvement in the herbage, that I should have an ample return for all my expenses. In the succeeding autumn, however, I experienced a severe disappointment. On visiting the field, about the middle of November, after a heavy fall of rain, I was surprised to observe that scarcely any water flowed from the mouth of one

of my drains, whilst the water was running from the other as abundantly as in the preceding autumn and winter. In the course of a week, no rain having fallen in the mean time, all the other drains ceased to flow, and the grounds below them became dry and firm; whilst that which was below the drains in question, out of which there still oozed the same trifling and scarcely perceptible stream as before, remained nearly as wet and as soft as it used to be at the same season of the year before the drainage.

The great object now was, to endeavour to ascertain the cause of my present disappointment; and whether a remedy might not be devised. Upon opening the drain, the cavity within the tiles was found, as I expected, full of water: but we had not been so fortunate as to light upon the place where the obstruction was: after one or two more trials, however, we came upon the source of the mischief. One of the arched tiles was found to be entirely filled with clay, rammed in as closely as could have been done by the human hand with a ramming stick; and the consequence was that above this artificial dam, the drain was full of water; whilst below, between the dam and the mouth, the drain was almost dry. Having allowed the water to flow off, which had been so effectually dammed back, I was enabled to discover by what engineer this work had been constructed, with a sagacity exceeded only by that of the beaver. It proved to be the mole, which had taken advantage of a corner of one of the flat tiles having been accidentally broken off, by which a communication was rendered practicable between the interior of the drain and the earth without. Through that cavity, barely large enough to admit the passage of its body, it had drawn in the mass of clay which filled the arched tile. From this ascertained fact, and there could be no mistake, as the hole of the mole was found immediately under the broken part of the tile, it appears that this animal is accustomed to take possession of hollow drains during the dry season; but when, at the commencement of the rainy season, the drains begin to work freely, its instinct teaches it to secure itself against the impending flood, by drawing in a quantity of earth or clay through any opening that may occur in the materials of the drain, and therewith forming a dam so nicely fitted to the cavity, and so closely rammed, as to be altogether impervious to water.

It has been mentioned before, that flat tiles were placed at the bottom of the drains, with a view to prevent the injuries to be apprehended from the *heavings* of the mole; but I had no apprehension of any such operation as that which has now been described; and, of course, had not provided against it. When once discovered, however, the remedy was obvious; namely, to leave no openings in the whole course of the drains, except those which are afforded by the roughness and unevenness of the edges of the tiles. Accordingly, having occasion to drain another field in the spring of 1829, I directed some tiles to be made, both arched and flat, which might prevent the recurrence of a similar inconvenience; and, after a trial of seven years, I have never seen the slightest appearance of obstruction in any part of the drain.

There were some other remarks relating to this important subject, which I was desirous of communicating; but, feeling that I have already trespassed too much upon your columns, I must now conclude. I am, sir, your obedient servant,

*Near Bridgwater.*

P.

## APPLICATION OF STEAM TO AGRICULTURE.

PATENTS OF JOHN HEATHCOAT, ESQ., M. P.

The following is a brief description of Mr. Heathcoat's Patents for his invention of "new or improved methods of draining and cultivating land; and new and improved machinery and apparatus applicable thereto—which machinery and apparatus may be applied to divers other useful purposes:"—

These patents were obtained for England, Scotland, and Ireland, in 1832. Prolonged and costly experiments have been required to mature the invention, and adapt it to practical use as a substitute for animal labour in many expensive agricultural processes, particularly in the culture of wet, heavy soils. Its first application has been made to the reclamation of bogs, which of all descriptions of soil, offer perhaps the greatest natural obstacles to improvement by mechanical means. These obstacles are, however, effectually overcome. Various machinery, constructed expressly for the cultivation of bogs, has, for some months, been practically and successfully worked in Lancashire on a bog called RED MOSS, near Bolton-le-Moors.

The principal machine is locomotive, and is so contrived as to be capable of travelling on the surface of bogs, the consistence of which would be insufficient, previous to a long and expensive drainage, for sustaining the weight of horses. The moving power is steam, generated from the peat and water of the bog itself. The diggings from the drains furnish abundance of fuel; and the drains yield an unfailling supply of water.

The prime agent, steam, is thus obtained at the cheapest possible rate; the local fuel requiring no transport, and the water no outlay in reservoirs or other constructions, to ensure a constant provision. By far the greater part of the power of the engines fixed on the machine is available, and employed to actuate the ploughs or other agricultural implements. These are moved at right angles to the line of progress of the machine, not dragged after it; the machine itself remaining stationary whilst the ploughs are at work between it, and two small auxiliary carriages, in the manner to be presently described.

In commencing the reclamation of a bog, a roadway is to be first traced out in a suitable direction for the proposed operations. This is done simply by forming two drains parallel with each other, and about seven yards apart. The principal machine is launched on this roadway. No metal or material of any sort is necessary to solidity to it; the machine rests on the raw bog, and bears on so large a surface of it that its buoyancy is insured. It also consolidates and dries the roadway by its pressure.

The two auxiliary carriages are stationed (where space permits), at a distance of about 480 yards asunder; one on each side of the principal machine, and parallel with it. Each carriage is furnished with a large wheel, or pulley, round which a band passes, proceeding from, and returning to, the principal machine, whence it derives its motion by proper apparatus. These bands are connected with the ploughs, or other agricultural implements, which are drawn to and fro between the machine and the auxiliaries. One quarter of a mile of land in breadth, exclusive of the roadway and headlands, is thus operated upon on the two sides of the machine. The auxiliary carriages travel on four wheels, resting on planks, which form a moveable railroad. One of the planks is let into a shallow trench cut in the bog, against one side of which plank some friction rollers, fixed on the

carriage, press in order to resist the pull of the engines.

Ploughing is the first agricultural operation. To accomplish this process in a thoroughly mechanical manner, and to adapt it to steam power, it has been necessary to contrive peculiar ploughs, furnished with sharp working knives, which divide every root and fibre of the bog plants, to the depth of nine inches, and turn over a furrow slice of eighteen inches in breadth, completely reversing the surface, and turning the heather side downwards. The underlying heath, moss and other bog-herbage facilitates the discharge of water, and permits the rain and air to penetrate the furrows. Drains are formed as the ploughing proceeds, that the vast quantities of water liberated by that process may be immediately carried off. After lying a few months in this state, exposed to the action of the atmosphere, the ploughed surface is found to be so considerably pulverised, that little remains to be done to fit it for the reception of grass-seeds. The complex operations necessary to prepare the soil for the culture of other and more important crops than grasses, will also be materially simplified and economised by awaiting the natural decomposition of the soil, which is so greatly expedited by this system of ploughing as a first process. It establishes a general under-drainage, which, with the assistance of numerous shallow gutters discharging into proper drains, will speedily create a soil on the surface of the wettest bogs.

The machine and auxiliaries remain stationary during the time occupied by the ploughs in taking two furrows; they are then, severally, put in motion, and made to advance in three parallel lines, in order to keep pace with the breadth of land turned over, and to pull the ploughs accurately straight. The machine is impelled by the engines, and each auxiliary by its attendant man, who also shifts on his planks as occasion requires. The machine and its auxiliaries have thus to be moved over a space of eighteen inches only, whilst the ploughs have travelled 40 yards, and turned over 220 square yards of land nine inches in depth; in other words, the machine and auxiliaries have to be moved only eleven yards, in the time that the ploughs have travelled five and a half miles, and turned over a statute acre of land. The ploughs perform their work at the rate of two miles an hour, and are subject to very few stoppages; so that eight acres and three quarters, nearly, of bog would be ploughed up in a day's work of 12 hours, or, taking the average of daylight throughout the year, and making a liberal allowance for hindrances from weather and other causes, one machine would plough up 2,000 acres in a twelvemonth.

It is evidently impossible to state, with any approach to accuracy, the expense of draining bogs, as the number, nature, and dimensions of the necessary drains vary with the wetness, retentiveness, and other qualities of each particular bog. The cost of draining will be materially reduced by applying steam power to suitable draining implements. In like proportion the expense of all other processes in husbandry will be diminished. The power of the engines will be used in conjunction with portable railways, for the conveyance of marl, and other kinds of manure or manuring soils, on the land. By these means, proper times and seasons can be selected for performing the various farming operations, the poaching (or injuring from the treading) of horses will be entirely avoided; open drains, where preferable, may be substituted for covered ones; and no outlay will be required for roads. The land necessarily lost by farm roads and communications between

fields will be, consequently, saved to the occupier and the public, as the machine roadways will be laid down with grass, and thus become permanently productive, instead of being not only a positive loss, but a source of continual expense and trouble.

That the steam-engine would at no very distant day, supply the place of animal labour in agriculture, and become as mighty an instrument in augmenting the productiveness of the soils, as it has proved in creating and economizing manufactures, in navigating the ocean, and in travelling on land, was many years predicted by Franklin—a prediction reiterated by Davy, and, latterly acknowledged and enforced, as a great desideratum in science, by many distinguished agriculturists. The successful application of Mr. Heathcoat's invention to the culture of bogs—the most repellent and obstinate of waste lands—leaves no room to doubt of its applicability to soil all ready in cultivation. Coals are now procurable throughout Great Britain at prices which have caused the steam-engine to be extensively introduced as a substitute for animal labour in many of the processes connected with agriculture. Thrashing, cleaning, and grinding corn, hay-chopping, turnip-slicing &c. are now performed by small engines fixed on farm premises, even the churn has its steam-engine, managed by the dairy maid; and so great is the advantage arising to the dairy farmer from the regularity of motion, and economy produced by it, that hundreds of small engines, for this similar purpose alone, are used in the north of England and in Scotland. But these are humble savings compared with the benefit to be derived from the vast steam power which may be brought to bear on the soil itself. Those agriculturists who are acquainted with the effects produced by the valuable sub-soil plough, recently invented by Mr. Smith, of Deanston, will readily appreciate the importance of an invention which will enable him to employ that kind of plough at a much diminished cost per acre. Mr. Smith's plough, with steam power, will effect a revolution in agriculture. Implements of husbandry have hitherto been restricted, in form, weight and dimensions, to the powers and manageableness of a team of horses. A new class of instruments will take their place; the stiffest soils may be broken up and pulverized to any desired depth; strong clays, the natural wheatlands, may be profitably cultivated, rendered more fertile, and fitted to bear a better and more systematic rotation of crops.

Such are a few of the benefits which landowners and agriculturists will derive from the substitution of steam for animal power in husbandry. It is also no slight advantage, in a national point of view, that this important change will be effected, unaccompanied by any of those temporary evils which too frequently attend the application of mechanical discoveries to existing arts. This invention will not displace a single human being from his accustomed healthy occupations; it will on the contrary, occasion new and increased employment for agricultural labourers—it will restore to the support of man a considerable portion of that large amount of produce now sacrificed to the maintenance of agricultural horses—it will furnish employment to the rapidly increasing rural population of the empire, by rescuing millions of acres of bog and waste land from obnoxious sterility—it will fix on their native soil multitudes of those poor Irish labourers, who annually migrate to Great Britain in search of work and food, and who are forced, with numbers of our countrymen, to suffer the hardships and dangers inseparable from emigration to wild and distant regions.

## STATE OF COMMERCE.

On looking into commercial affairs with the view of ascertaining what the prospects for the country are at any particular period, one of the greatest difficulties in the inquiry arises from the impossibility of ascertaining what effect may be produced upon speculation and enterprise by the measures of governments or by military preparations. Tranquillity having remained undisturbed between Belgium and Holland, and the threatening aspect of affairs between France and the United States having been succeeded by one that promises uninterrupted peace, the most active and wealthy portion of the commercial world would seem to have less cause for uneasiness on this ground than for many years.

Apart therefore from any of the great political causes of disturbance to commercial operations, let us endeavour to ascertain the main sources of the present general commercial activity, and examine whether the comparatively high prices of the raw materials of manufactures be owing to accidental circumstances, which may cease to operate to the same effect, or which may, on the other hand, operate in the same direction with augmented influence.

We said last week, that we thought the general cause of the greatly increased commercial activity now prevalent, would "be found in the great and prolonged contraction of confidence at one period, and its great and long continued extension at another:"—that other bringing us up to the present time. And we proceeded to allude to the panic of 1825, as the commencement of the period of a great general contraction of confidence. It appears to us, however, that even for the deliberation of merchants in prospectively arranging their affairs, it would be safer to take a date about the conclusion of the war, or the year 1815, in order to obtain a clear view of the past and present state of mercantile confidence and the circulation of money. These are the main springs of the great commercial machinery under the operations of which communities are enjoying prosperity or suffering the pressure of severe distress; and to take a comprehensive and accurate view of their action, is a point of the first necessity. Proceeding with this inquiry we conclude that it may be assumed, without hazard of an objection, that the year 1815 may be taken as that point of time when mercantile credit was forced to a higher degree of excess and extravagance in all the commercial cities of Continental Europe lying north of the river Scheldt, than at any period during the antecedent fifty years. And not the slightest doubt can be entertained that still greater excess marked the credit transactions of the merchants of England. Including the commercial affairs of the East Indies and West Indies—each of more importance, in any question relating to trade, than many of the minor commercial countries of Europe—we believe the mercantile credit of Europe was in a state of greater extension at the close of the war than at any point of time in our history.

This being the condition of the commercial world at that period, we must recollect also that the paper currency (issued by, or under the sanction of the respective governments,) of all the states referred to, was in a corresponding condition of excess. With the exception of France, Spain, the Italian States and Turkey, we know of no country that would not come under this description, as far as paper currency, purporting to be payable on demand, is concerned. All circulation had indeed been obstructed in the United States of North America by the war carried on in her own provinces, but on the removal of that obstruction it became free and expanded immediately.

We repeat, therefore, that the commencement of the year 1815 may be taken as that point of time when the circulation of mercantile credit, and the paper money issued by Banks and Governments, was conjointly in a state of greater excess and extension than it ever had been at any previous date. Soon after that period every Foreign State included in the above description began to take steps for rectifying its paper currency but not in any material degree, by diminishing its amount. In 1816, the British Government entered upon that series of measures for raising the value of the currency that were finally terminated by the Act of 1826 for the suppression of small notes in England, and which was carried into complete operation in the year 1829.

With these important facts before us, the great matter of interest is, to ascertain what has been the nature of the proceedings, relating to their money affairs, of the different commercial countries, since the year 1815. We must content ourselves with taking a hasty glance at some of those most materially bearing upon the subject. France was in that condition most favourable for the extension of her circulating medium, and the expansion of mercantile confidence, because her currency was almost purely metallic, and the credit of her merchants and manufacturers was extremely limited. France has coined, since the termination of the war, eighty-five millions sterling, or about 2,100,000,000 francs, and as the only tangible proof that we are enabled now to give of her increased mercantile affairs, as it is shown in banking transactions, we may refer to the progressive extension and influence of the Bank of France. The business of that establishment in the year 1834 was more than double that of 1832, and though it may be true that in the year 1832 it continued to feel the influence of the troubles and agitations of the revolution of 1830, and its consequences, we believe that since 1834 the increase in its business has been progressive and considerable. The circulation of its notes is now, we understand, about ten millions sterling. The industry, trade, and commerce of France were never in a more satisfactory state than at this moment. This we attribute, in great measure, to the gradual, but sensible, increase of the circulating medium.

Notwithstanding the suppression of single dollar notes in some of the States, and the determination of the United States Bank to discourage their circulation by issuing none itself for a smaller sum than five dollars, the paper currency purporting to be payable on demand has increased amazingly throughout the American Republic during the last twenty years. The amount circulating in 1835, compared with that of 1815, was ninety-eight millions of dollars against forty-five millions of dollars, or nearly double. This is the secret which explains the extinction of their public debt, and it accounts for the extraordinary development of their vast internal sources of wealth now in progress. As an illustration of the latter, we may mention that the Erie Canal was commenced and completed, during this period, at a cost of 10,500,000 dollars. The entire length of this great work, with its branches, is nearly five hundred miles. The revenue, derived from the tolls taken upon it, was in the year 1833, 1,430,000 dollars, and this amount has, we believe, been progressively increased. They will soon have railways traversing the whole country from north to south, and from the Atlantic to the Pacific ocean. The history of the world furnishes nothing resembling the rapid development of the internal sources of wealth now going forward in the United States of America.

Of the northern states of Europe we have nothing

but general information. In Sweden the circulation is wholly of paper currency, issued under fixed regulations which do not admit of much change. No diminution in its amount has taken place since the year 1815, and we understand, but little, if any, increase. In Russia, the Government has at different times, called in some of the notes in circulation, on account of the great number of forgeries, but we are informed the amount issued is now considerably higher than it was in the year 1815. The Czar is, we understand, perfectly aware of the great importance of keeping up an ample supply of paper credit as a means of promoting industry, and improving the commercial resources of his vast empire, and these means he is every succeeding year rendering more effective for the benefit of his people. The paper is as much depreciated as it was in the year 1815, and it exchanges for silver in the same ratio, viz., about four paper roubles for one of silver; the amount, however, both of paper money and silver, in the country, is much greater than it was at that date. Besides the mere amount of the circulating medium being greatly increased since the year 1815, extraordinary facilities have been given for promoting a more general and advantageous distribution of it throughout the vast territory of Russia. The Government regulates the amount of the issues, but since 1815 other banks have been established, and the Imperial Commercial Bank of Russia, for deposits, discounts, and agency, has carried on a very extensive business, which has proved most advantageous for its proprietors and the public. This bank has branches at all the principal cities—even at places so remote from the capital as Odessa, on the southern, and Archangel, on the northern confines of the empire. Another bank, called the Loan Bank, promotes the application of capital for great undertakings, public and private. Such useful means and appliances as these have all been brought into action within the last twenty years, and their direct and powerful tendency is to promote industry, increase and multiply productions, and augment the wealth of the country, without raising up a powerful money interest with objects at variance with the productive classes.

All recent travellers describe the increased industry and the internal improvement of Russia to exceed those of any other new country, except the United States of North America. She is, like the United States, making great advances in manufactures as well as in mining and agricultural affairs. The Russian Authorities understand too well the causes of the increase of wealth and power to permit their paper circulation to diminish.

The wise and paternal government of Prussia has not only kept the amount of its circulating medium more abundant than it was in the year 1815, but it has, since that period, established, or encouraged and sanctioned, the establishment of a public company, which is to make advances on agricultural produce in times of low prices and stagnation, and in this manner to enable the producers to hold stock for more advantageous markets, and still continue their payments to the State and the proprietors of the land. The benefit which this company has afforded by fostering the increase of fine woolled sheep, for example, is indescribable. This is a comparatively new product in Germany; the first few sheep, the breed of which produces it, were imported from Spain about seventy years ago. We believe we much understate the increase in the produce of electoral wools which has taken place in Germany since 1815, when we say that it is fourfold greater than it was at that period.

We all know, and shall speedily be made to feel more sensibly than we have yet felt, the effect of the competition of the Prussian manufacturers.—*From the Banker's Circular.*

Our attention has been called to the WATERLOO CÆSAREAN COW CABBAGE, the subjoined description of which would have raised considerable doubts in our minds as to the veracity of the narrator, had we not convinced ourselves by ocular demonstration of the truth of one part of the statement, namely, that it will reach ten feet in height. With respect to the effect produced upon the texture and growth of sheep's wool we must confess our scepticism.

This singular and extraordinary species of Cabbage, almost unknown in England till introduced by the persevering efforts of Mr. FULLARD, three years since, grows from *nine to twelve* feet high, and from *fifteen to twenty* feet in circumference. FIVE of these stupendous Cabbages, now raised to the greatest perfection in *quality* as well as *size*, have been repeatedly found, by proper management, an ample allowance of food for *one hundred* sheep or *ten* cows per day; and the nutrition thence supplied by this delicious vegetable will (as experience has already abundantly demonstrated) speedily produce the most surprising improvement in the *growth and utility* of every description of Cattle.

As an evidence of the beneficial tendency of this Cabbage, Mr. F. has the great pleasure and satisfaction of saying that sheep fed upon it have been found to produce wool of the finest silken texture, TWENTY-FIVE INCHES LONG,—a circumstance which cannot fail immediately to claim the utmost attention and admiration; as such, the cultivator of these Cabbages will not only realize pecuniary profit beyond any previous experience, but the manufacturer will also obtain a superior material to any heretofore produced by the most profitable speculation, the general and extensive demand for which must exceed all present calculation. The commerce of the country, as well as the interest and pleasure of the community at large, will likewise be greatly, if not incalculably, enhanced by the cultivation and use of this improved vegetable production.

This WATERLOO CÆSAREAN COW CABBAGE has been pronounced by the Father of the Agriculturists, whom, from his well-known experience, we are all bound to believe, to be the greatest wonder that ever appeared in the vegetable kingdom. It was shewn to that very highly esteemed and truly respectable gentleman, T. W. COKE, Esq. Holkham Hall, Norfolk, in October last, when he immediately said,—“*Mr. Fullard, you told me, three years ago, Agriculturists were only half way advanced in improvement,—this Cabbage makes me say, I am bound to believe you. I do say it is the greatest wonder the earth ever produced.*” Mr. COKE subsequently introduced several *Dukes* and other *Noblemen*, to the number of nine, to view this great production, all of whom expressed their astonishment, and engaged a part of the Seed for use this year, (1836.)

These Cabbages, if designed for the Winter season, can, for convenience, as well as advantage to the grower, be then removed from the fields, and will serve to make handsome serpentine walks in gardens, or they will form a most excellent avenue for winter across a field; or by setting them singly, will make a ground, that has not a tree in it, a park for Winter, and may be given to the Stock in Spring.

A part of this seed has been engaged by HIS MAJESTY, and forwarded to *Norfolk Farm, near Windsor*, to be planted this Season; and the production is already likewise patronised by most of the ROYAL FAMILY:—the DUKE OF WELLINGTON, and a great number of GENTLEMEN have selected the SEED for cultivation this year.

## THE LANDED INTEREST.

We have lately seen a publication, entitled "the Claims of the Landed Interests to Legislative protection, &c. &c." written by Mr. Blacker, and published by Ridgway, in London, and Curry and Co. Dublin, with the importance of which we have been very much struck. The writer first shews that the Agricultural Interests are in reality the National Interests, and then proceeds to discuss all the most important topics with which the latter are connected. We cannot lay before our readers all the subjects discussed, but shall briefly allude to four, and if the volume contained no allusion to any thing further, the manner in which these four have been treated, ought alone to render the publication at the present juncture invaluable. We refer to the discussion upon the relative importance of manufactures, commerce, and agriculture, to the wealth and prosperity of the community—to the treatise on the banking and monetary system—the corn laws, and the remedies pointed out for correcting the present redundancy of grain with national advantage, by turning a great portion of Ireland to the production of other produce.

The first is, or ought to be, the ground work of all legislation, for every act of the legislature ought to have in view the public good, and unless the importance of these rival interests thereto be well understood, the legislature will be steering the vessel of the state without a compass; and that this has been the fact is pretty well proved by the contradictory enactments which our statute-book discloses, to reconcile which, with any fixed principle of action would be a task that few would be inclined to undertake, and which, in our opinion, none could perform. However desirable it may appear, and evidently is, to establish upon these principles, in what proportion the manufacturing, commercial and agricultural classes contribute to national wealth and prosperity, we know of no attempt whatever heretofore, to analyze or explain, in any way whatever, a question at once so intricate and so interesting. In this respect we feel bound to confess, that our author has succeeded in solving the problem more clearly and concisely, than we could almost have thought practicable. Public attention seems to have never been seriously directed to the subject, and there seems to have been a tacit kind of admission that the importance of any branch of manufacture entirely depended on the value of the article produced, and the population employed; but our author in his present work brings quite new elements into the calculation, and shows most satisfactorily that manufacturers may be classed under three distinct heads, the respective importance of each varying according as the raw material of the manufacture, and the subsistence of the manufacturer shall be derived from the produce of the national territory, viz.—In the first place, a nation will derive the most extensive addition to its wealth and prosperity, when the entire raw material of the manufacture and the entire subsistence of the manufacturer are the produce of its own soil, as is the case in the hardware manufactory of England at present; the raw material, the subsistence, the fuel and machinery, being all produced at home. Secondly, where a nation does not produce the whole of the subsistence or the whole of the raw material, the advantage of the manufacture is precisely in the proportion of the extent in which it does produce them; so that the same manufacture may be changed in its importance according to these circumstances; thus the linen trade of Ireland,

whilst the flax was grown at home, was a manufacture of first rate importance, but when the raw material is imported from abroad it falls from its high degree, and is no better than the cotton or silk manufacture, except to the extent in which the flax consumed is supplied by the produce of our own soil, which is still in part the case. Thirdly—when the national territory produces neither the raw material manufactured, nor supplies the subsistence required by the manufacturer, whatever may be the appearance of employment or the bustle of business created, the advantage to the state under the most favorable circumstances must be very limited, and in certain cases little or nothing at all; being confined to the mere profit of the capitalist and the accumulation of saving (if any) by the operative out of the wages he receives; but if the operative spends his earnings in the ale-house or gin shop, this accumulation never takes place, as he is in that case no richer at the end of the year than he was at the beginning, and therefore the community can never be enriched in his person. Thus, all that would remain under such circumstances would be the profit to the capitalist, which in good times, may amount to something, but in bad times amounts to nothing at all, and at any time only tends to increase the already great wealth of a few, but not to its general diffusion. The cotton and silk trade of England were some time back examples of the foregoing; for then the food of the manufacturer was in a great degree imported, and the raw silk and cotton wool were imported also, and the general habits of intemperance existing among the workmen is too well known to require any proof, so that nothing remained to add to the wealth of the community, save the profit to the capitalist whatever it might amount to. The advantage of commerce is next shewn to consist in the nature of the articles exchanged, and not as was formerly supposed, according to the system called the balance of trade. Where the articles exchanged support or promote industry, the trade is beneficial, but when a country parts with articles of permanent value, and receives in return wine or spirits, or any thing which perishes in the enjoyment, that country can no more add to its wealth thereby, than any individual could increase his fortune by doing the same thing. Our author next comes to the consideration of agriculture, and calls attention to the circumstance, that every thing produced by the national territory is a direct addition to the national property, without any outgo, or deduction whatever. Its advantage to the state is not a mere profit upon capital, as in the case of manufacture and commerce, but it is a direct creation of capital itself.

The agriculturist is able or ought to be able, to support himself and his family, and after paying the expenses of his farm to improve his own private circumstances, equally with any other class of his fellow subjects, but, besides all this, he likewise pays his rent, which is a bona fide addition to the capital of the community, and mainly supports the entire frame of society. It would far exceed the limits of a newspaper to follow our author in his interesting explanation of the manner in which the produce of the soil formed originally the foundation, and still forms the support of all the comforts, the luxuries, and the elegancies of life, and how manufactures and commerce derive their chief value, by affording the means of converting that produce into valuable articles capable of long surviving the ordinary duration of the food consumed in their production, as well as the strength of the workman, who had been

nourished thereby. It is sufficient for us to say—that the produce of the soil being thus identified with the National interests, which is in other words, that of all classes of the community, our author proceeds to consider those subjects in which all the said classes are most concerned, and begins with the Banking and monetary system, explaining the operation and effects of the Bank Restriction Act of 1797, the Currency Bill of 1819, and the late renewal of the Bank Charter, the working of all which is distinctly set forth, and particularly the inadequacy of the latter, to confer upon the Bank any absolute power of controlling the exchanges under any extraordinary financial operations, and the great injury likely to arise from attempting to exercise any such power, by contracting the circulating medium, even if such power were in existence, and concludes the article by proposing a remedy, which is certainly supported by most plausible and powerful reasoning, but which we feel, must be referred to practical men to decide upon, and as we cannot do justice to the arguments offered by any extract, which our space could admit of, we proceed to the subject of the corn laws, which follows next in succession:—In regard to this question, so much has been written, that we anticipated but little of novelty in the discussion. The fact, however, did not turn out as we had expected—for a most important and novel operation is not only made, but is also in our minds most satisfactorily proved—namely, that the price of grain has been reduced to a lower price by the operation of the Corn Laws, than if there never had been any restriction whatever on the importation, and at the same time, it is distinctly and fully admitted, that the price of grain has been from 60 to 80 per cent. cheaper on the Continent all the time. The paradox, strange as it may appear, seems to us to be satisfactorily proved, and if so, it is decisive of the question which has so long been agitated as to the propriety of their repeal, and which is strongly opposed by our author, though a fixed duty is recommended by him in place of the present graduated scale. The fourth and last particular we shall comment on, is the suggestion that all other agricultural produce suited to our soil and climate should receive legislative protection as well as grain, which being effectually given, great part of the land now devoted to the cultivation of wheat, &c., would be applied to produce flax, butter, tallow, hemp, tobacco, &c., and thus by lessening the Irish export of grain of all kinds would tend most materially to correct that redundancy in the British markets, of which the English and Scotch farmers so much complain. The articles of flax and butter are particularly discussed, and it seems pretty clearly made out, that full protection in those articles would turn to their production land fully equal to produce two millions of quarters of grain; our author in considering that this would reduce the exports of Ireland to this amount seems to overlook, that the protection supposed to be given would cause part of the supply to be grown in England and Scotland, but this does not however lessen the anticipated relief to the grain market, in which respect, it is a matter of indifference in which country the transfer of the land to the production of those articles is made—that such protection would prove effectual to the transfer he anticipates is proved by the fact that the late advance on flax, on account of the failure in the Continental crops, has actually had that effect throughout almost all the North of Ireland. Our author points out the sound policy of the protection he contends for, by reference to the admitted principle, that the produce of the soil forms the true source of the riches of the country, and shews the great national loss arising

from the importation to such an enormous value from other countries of what we could produce at home, and strengthens his argument by pointing out the great advantage the state has derived from the partial protection afforded in regard to butter, the tax on which he clearly shews to be levied off the profits of the Dutch producer, and not to be in any way paid by the English consumer. Besides the foregoing leading subjects, there are many others scarcely inferior in importance, which are concisely but most ably discussed, as the repeal of the malt tax, county rates, tithes, absenteeism, the regulations adopted for the issue of Government grants, in regard to all which valuable suggestions are thrown out, and the work concludes with a forcible appeal in favour of the right of the labouring poor to be provided with employment, and the means of supporting themselves and those depending on them by the allotment of the waste lands, and a strong statement against the propriety of any compulsory poor law provision, as being likely to create more misery than it would cure, and strongly condemning the conduct of the legislature in the encouragement given to the consumption of ardent spirits. We are happy to see that in many respects the suggestions of the poor law commissioners lately laid before Parliament correspond with those contained in the volume we have just been reviewing, or rather giving a statement of its contents. It is written in a clear and concise manner; so concise, that we cannot without injustice to its merits attempt to give extracts, for which indeed our columns would not afford space. It is not our practice to take upon ourselves the office of reviewers, but feeling the importance at the present crisis of calling attention to this publication, and seeing it almost entirely overlooked by our brother Editors, we have thought ourselves called upon to recommend its perusal to our readers, and, if possible, to induce them to contribute their best exertions to carry its suggestions into effect. We see our northern fellow countrymen are already making the most active exertions to procure from the Legislature that protection to the growth of flax, in which they are most interested, and we trust the gentlemen of the South will not be so supine and so insensible to their own interests and the interests of their tenants as to let slip this favourable opportunity of accomplishing what sound policy and true patriotism so plainly points out, and what the English agriculturists will for their own sakes assist them to obtain, viz., effectual protection in the articles of butter and tallow—one-fourth of the entire importation into England of the former being supplied by Holland, and the latter, we may say, entirely from Russia, a power which is hostile to our trade in every particular, and takes nothing from us she can possibly avoid. It surely must appear evident, that if Ireland should not be able to afford immediately the necessary supply for the English soap manufactories, that a preference should be given to the oils of the Mediterranean or the tallow of South America, whereby our exports to those countries would be encouraged, owing to a profitable return being provided, and our own shipping would be exclusively employed. But we have already devoted too much of our space, and conclude by strongly recommending the work to the patronage of the public.

VICTORIA WHEAT.—From a variety of reports the following facts are collected:—It comes from the province of Caraccas; it has been recommended by Humboldt for its great productiveness, and bringing grain to perfection in a singularly short period—grown in the environs of La Victoria, on ground about 1900



feet above the level of the ocean; the flour is particularly sweet and well tasted, and makes excellent bread—this was proved in Warwickshire. If sown in February it may be reaped in June; seventeen grains were sown near Colchester in the middle of March and reaped the middle of July, and produced two quarts; if sown in June, and the season be fine, it will yield a crop in October. Its great value appears to be, that should other wheat crops fail, this variety may be sown afterwards in April or May. It seems to be like a good soil. One grain produced sixteen ears at Kingsbridge, South Devon. Mr. Byers, F.L.S., and Honorary Secretary to the Swansea and Neath Horticultural Society, has requested us to call the attention of our readers to this wheat, and he has offered to supply a few experimentalists with 50 grains each, on applying to him for them, on this condition—that they send a report to him of its success, the time of sowing and reaping, the soil, situation, and produce. Mr. Byers sowed six grains in October; three are now strong plants, having borne our severe winter, the other three grains were destroyed by slugs.

### THE MARQUIS OF CHANDOS' MOTION ON AGRICULTURAL DISTRESS.

The motion of the Marquis of Chandos on the subject of Agricultural distress, which was postponed on Friday, the 22nd April, in consequence of the adjourned debate upon the Carlow affair, came on upon the Wednesday following. Notwithstanding the conviction in our own mind, and which had been confirmed by the opinions of some of the sincerest friends of the Agricultural interest, that the agitation of the question at the present moment was by no means judicious, still our expectations were very much heightened by the recollection of the declaration of the noble Marquis at a meeting of the Buckinghamshire Agricultural Association, that he had a plan in his pocket which he contemplated bringing forward at the meeting of Parliament, but which like a prudent general he deemed it wise to keep secret for the present. Considerable disappointment was expressed previous to the appointment of the Committee upon the state of Agriculture, that the noble Lord had not described his plan, and sundry jokes were cracked at his Lordship's expense, the secret scheme having, amongst other appellations acquired that of his Lordship's "pocket pistol." Having always found his Lordship's ordinance of heavy calibre, although his aim was not always well taken, we abstained from joining in animadversion upon his supposed failure in generalship, until we should have seen what position he might take amongst the agricultural champions in the Committee. At length, however, having seen his Lordship's "pocket pistol" discharged without producing the effect of a pop-gun, we can no longer refrain from some remark. Ever since the Peace, at which period the great decline in produce commenced, the *tenantry* of England have been misled by false hopes. The Corn Laws have operated as the greatest delusion. We do not mean to say that they have not afforded some protection, but we do most fearlessly assert that they have not protected them to the extent they were led to believe. Therefore it is that we con-

sider those persons not to be discreet friends of the farmer who excite hopes, of the realization of which there is no reasonable expectation. That high prices do not necessarily benefit the tenant is manifest from the refusal of several landlords to return the usual per centage at the last rent audit. The high price of all articles except Wheat, and the late advance in the value of that article is at once taken advantage of to *virtually* raise rents inasmuch as the withholding the usual allowance is tantamount to an advance of rent. Sir James Graham opposed the motion of the Marquis of Chandos, and has thereby brought down upon himself the vituperation of the *high rents* advocates; the term "*renegade*" being applied to him by the authority of the Central Agricultural Society in no measured degree. Sir James Graham may, however, be proud of such censure, his friendship for his tenantry may be ascertained, not by his speeches *only*, but by his *actions*. He was not so "*wicked*" as to maintain war rents when prices declined, he will not be "*so wicked*" as to raise them when a trifling advance in the value of produce takes place. Each day's experience tends more and more to convince those who pay attention to the subject that high prices cannot be maintained, and that high rents are advantageous only to the receiver. The effect of the repeal of Peel's Bill by the Joint Stock Banks may be tested sooner than some persons expect, and the consequences *may* turn out to be the converse of what they expect.

### BRITISH PRODUCE AND MANUFACTURES EXPORTED IN 1834.—Account of the declared value of the principal articles of British Produce and Manufacture exported in the year 1834:—

	£.	s.	d.
Brass and Copper Manufactures . . .	961,823	2	11
Iron and Steel, wrought and unwrought . . . . .	1,406,872	2	1
Hardwares and Cutlery . . . . .	1,485,233	1	1
Tin, wrought and unwrought . . . . .	370,382	11	5
Cotton Manufactures . . . . .	15,302,571	7	1
Cotton yarn . . . . .	5,211,014	17	8
Linen Manufactures . . . . .	2,443,344	18	7
Linen yarn . . . . .	136,312	11	9
Woollen Manufactures . . . . .	5,736,870	11	0
Woollen and Worsted yarn . . . . .	238,543	15	9
Wool (Sheep's) . . . . .	192,175	14	1
Silk Manufactures . . . . .	537,198	5	4
Salt . . . . .	152,126	14	10
Soap and Candles . . . . .	263,972	4	11
Sugar, Refined . . . . .	916,391	8	0
All other Articles . . . . .	6,194,358	1	6
	41,649,191	9	6
Whereof from Great Britain were..	41,286,594	5	6
from Ireland . . . . .	362,567	4	0

THE WISEST TREE!—“The *Mulberic* tree is accounted, of all other trees, the *wisest*, because he never blossometh till all cold weather be quite past: so that whensoever you see the *Mulberic* begin to spryng, you may be sure that *Winter is at an ende!* He is ripe with the first; and buddeth out so hastily, as, in one night, with a noise, he thrusteth out his leaves: he changeth his colour thrice—first white, then redde, and lastly black!”—*Heresbachius' Husbandrie*, A. D. 1578.

## THE TITHE BILL.

TO THE EDITOR OF THE HERLORD TIMES.

SIR,—I agree with you in opinion, that the amended Tithe Commutation Bill is in some respects better than the last, but I cannot avoid thinking that it is, in some respects, worse; and that some of the most objectionable parts still remain; and that a great number of the clauses cannot be acted upon without inflicting great and unnecessary injustice.

By the 17th clause the parochial proportion of rent to the tithe owner is to be regulated by the amount of the poor rate paid by each occupier. I, in common with many other landlords, possess cottages, which, with about half an acre of ground, are let to day-labourers at about fifty shillings per annum; and many of these are rated at three pounds per annum. In a parish where a considerable part of my estate lies, where there are a large number of small freeholders, and where the poor's rates are very heavy, the cottager will have to pay nine shillings per annum to the tithe owner, for the tithe of half an acre of ground, and not worth so much to a farmer, nor let at so much as twelve shillings per acre; that is, the cottager will have to pay the tithe owner annually one half more than the total annual value of his ground!

By the 34th clause the commissioners are to ascertain what has been the gross annual value of the tithes of each farm, during the last seven years, which they will necessarily be about as capable of doing, as they are of ascertaining by what kind of animals the planet Jupiter is inhabited; and the difference of the allowance to the cultivator of twenty-five and forty per cent. will be nothing more nor less than a tax upon the liberal and just clergyman, and a bounty upon the illiberal and unjust one.

The mode of taking the averages of the price of corn will prove highly unjust and injurious to the possessors and occupiers of the soil of Hereford, and in some other counties. Much of the wheat of Herefordshire is consumed in Birmingham and in Glamorganshire; and the farmer will generally have to pay by a corn rent according to the price of corn in those places, and consequently the expense of conveying it, which is very heavy, will be a tax upon the farmer, and a bounty to the tithe owner; and the numerous railways at present constructing will operate, upon this account, very injuriously upon the agricultural interests of those counties through which such rail roads will not pass.

The Hereford farmers, who rear large numbers of cattle, and whose farms for that purpose are of most value, are obliged to thrash out their corn to obtain straw for their cattle, and are therefore under the necessity of sending much of their corn to market during winter; and then that usually takes the lowest price; and upon this, as well as upon other grounds, the proposed corn rent will be found to operate very injuriously and unjustly upon the interests of the farmers and landowners of this county.

I could easily state many other objections to the proposed bill, which I feel perfectly confident will operate more injuriously upon the interest both of religion and agriculture than the existing tithe laws, bad as those are; and I cannot but think that in the preamble to his bill Lord John Russell ought to have said, "whereas the agriculturists are too rich, and the clergy of the Established church too much respected and beloved, and the Established Religion of the country in too flourishing a state," &c. Be it enacted, &c.

Under the existing tithe laws the tithe owner cannot claim anything for all the herbage consumed by the farmer's labouring horses, or oxen, nor for that consumed by his young stock, which is rearing to supply the place of such stock, when that is sold; and no claim whatever can be made on account of the animals slaughtered, however numerous, for the use of the farmer's family, servants, and labourers; and by changing his mode of culture, he can, often without any, and generally with very little loss, greatly reduce the value of the tithe; but by the proposed bill all these advantages will be taken from him; and if the clause

of the bill be made compulsory, as proposed, that will, I very confidently predict, be found to operate still more injuriously upon the interests of religion than upon agriculture.

I remain, Sir, your obedient Servant,  
T. A. KNIGHT.

The subjoined short extracts from the second report of the Committee of the House of Commons, on Agricultural distress, are deserving of notice. Mr. Bickerton, of Shropshire, examined by

Mr. Clive.] What should you say of a repeal of the duty on clover seed?—I think it would be beneficial to that part of Shropshire in which I reside.

Is cloverseed grown in your neighbourhood?—Sometimes it is, but it is more as a speculation than as any regular system; and when it is grown I think it seldom pays, it is so precarious in ripening.

Sir R. Price.] Do you consider it an exhausting crop?—As exhausting a crop as wheat, and a very uncertain crop; I have seen what appeared good crops of clover upon the land that would not yield twice the seed again; it was carried for fodder afterwards.

Mr. Scott, of Liverpool, states that there has been a decreased importation during the last three years, (pages 34 and 43.) In answer to a question by the Hon. Robt. Clive, this witness said that the supply into Liverpool is principally from Ireland, and what comes coastwise from Norfolk, Suffolk, and Scotland.

Mr. Wodehouse.] Do you not believe that, generally speaking, the persons who are in the habit of making returns of the prices of corn are those who are usually the purchasers of the best samples of corn? Yes, I think they are.

Mr. Denison.] If the averages were taken weekly, you think it would be in the power of persons to raise them for a particular purpose?—It might be done certainly.

It appears that there were one hundred thousand quarters of wheat in bond in Liverpool for the last three years, at a loss of 9d per bushel, or 5s 3d per quarter, per annum; and a waste also of from 3 to 5 per cent.

Mr. Howard, of Yorkshire, when speaking of the rot in sheep, says, that in 1831 entire flocks were destroyed; and that if the present prices of wheat are continued, fifty thousand acres of land in that county will go out of cultivation. He also states, that less Wheat has been sown, and more Barley, this year; therefore Wheat may rise in price and Barley fall. This gentleman was asked,—“Do you consider that the repeal of the Malt Tax would benefit the Farmer?”—Answer, The Malt Tax is paid by the Consumer—not by the Farmer.”

Mr. Sanders, a gentleman engaged in the Irish Corn Trade, states (p. 131.) that he thought Agriculture in England had now reached its lowest point of depression, and that there is now a prospect of improvement. He believed that a great deal of smuggled Malt came from Ireland. He was certain that if a varying rate of Duty on importation is altered to a fixed duty, it would ruin the English Farmers.

Sir J. Graham.] If the ports be constantly open at a fixed duty, are you of opinion that by the increased cultivation of wheat in countries having ports upon the Baltic, the foreigners could steadily supply this country at a price not much higher than they now do?—Probably it would be somewhat higher; I think you would have an average price of wheat in this country, with an 8s duty, somewhat about 36s.

Then that would displace the wheat of Ireland?—No doubt it would, and I can show that a duty of 8s a

quarter upon foreign corn would be entire ruin to the tillage agriculture of Ireland; for this simple reason, the wheats produced in Pomerania, and Silesia and Poland are more than 8s better than the Irish; consequently it would be no protection at all to the Irish, and the loss to the agricultural interest there would be very serious, and not only the loss to agriculture, but also a tremendous loss to the milling interest of Ireland, which is becoming one of the most important interests of that country.

Therefore, if Pomeranian wheat were in the market, and selling at 38s a quarter, Irish wheat could not sell for above 30s in your estimation?—Certainly not.

## ANIMAL PATHOLOGY.

By MR. YOUATT.

(From the *Veterinarian*.)

### MORBID STATES OF SENSATION.

The diseases of the nerves of sensation in animals to whom nature has denied the power of speech, and who only by signs, comparatively inexpressive, and frequently delusive, can enable us to guess at what they suffer, is a subject difficult to treat upon, and on which we can scarcely arrive at a satisfactory conclusion. I fear, too, that the natural difficulties of such a subject are much and disgracefully increased by the inattention of many of us to the indications of pleasure and of pain in our quadruped patients. In our treatment of disease, and in many of the operations which we perform, the value of the animal as the slave of man, and the degree in which we can make him, his services and his very form, subservient to the caprice of man,—these are our primary calculations; and the enjoyment or the suffering of the animal itself are subjects of mere secondary consideration; or, thus far only, taken into the account at all.

Well, gentlemen, we must take this subject in its turn, not deterred by its difficulties, and fully resolved that even where we have so few facts to reason upon, we will not admit one of them without sufficient evidence.

**LESIONS OF THE SENSITIVE NERVES.**—We have to consider the lesions or morbid conditions of the nerves that spring from the central columns of the superior (posterior) surface of the spinal cord, including those of common sensation, multiplied chiefly about the skin generally, and those more especially devoted to the sense of touch, and accumulated on certain parts only of the integument. When we considered the physiology of these nerves, an important distinction was drawn between those of common sensation and those of touch; the former being susceptible of certain impressions, pleasurable or painful, referrible to the general well-being of the animal, the others being intimately and necessarily connected with the mind. We cannot, however, maintain this distinction in a pathological point of view.

**DIVISIONS OF THESE LESIONS.**—These sensitive nerves are the media through which impressions relating to the organic, or the animal, or the intellectual life, are conveyed to the common sensorium; and we can only conceive of three modes, and applicable to them all, in which they depart from their healthy function, namely, when they are too acutely or not sufficiently sensible to impression, whether from external or internal causes, or when they convey impressions not simply too vivid or too obtuse, but otherwise wearing a delusive character. I need not remind you that, in this investigation, we have nothing to do with the nerves of pure sensation deriving their

origin from the base of the brain: they will afford matter for future consideration.

**THE SENSITIVE NERVES DISTRIBUTED TO EVERY PART.**—The nerves proceeding from the central columns of the superior surface of the spinal cord, are not only, according to their relative position, determined in an especial manner to certain parts connected with animal life, and to which they essentially belong,—perhaps I must not say that they *anastomose* with other nerves, for it is evidently necessary that the impression, pleasurable or painful, beneficial or injurious, should be referrible to the precise point on which it is made, and that no painful feeling should spread around, unless when some injury is extending, and needs instant remedy—I must not say that they anastomose with other nerves, but they ramify into innumerable branches of extreme minuteness, and spread themselves over every portion of both systems. They do so in order to be everywhere the organs of pleasure or of salutary warning; and they keep up a common feeling and a common sympathy, on which the well-being of the system and the proper action of every part depend.

**THEIR NATURAL STATE.**—Are they in a quiescent state when the animal is unconscious of any determinate pleasure or pain?—No, they can never be altogether quiescent; there is a feeling of health, not easily to be described, but having a real and delightful existence when the various parts of the frame are working harmoniously and well; and there is a real and wearisome sensation when disease is about to attack the frame. There are certain acts in which the excitement of a portion of the nervous system is attended by a great degree of pleasure; but, generally speaking, an undue excitement is accompanied by or degenerates into pain. Their healthy state borders far more upon quiescence than upon excitement.

**FIDGETINESS.**—There are certain states of the constitution in which there is a slight and yet unpleasant degree of exaltation of the sensitive nervous system—a kind of fidgetiness, than which there are few things more annoying. We see it in the stabled horse unexercised and over fed. He is not still an instant; he is pawing, weaving, cribbiting, nibbling, and biting himself in every part. If he is taken out of the stable, he knows not what to do with himself; and his rider scarcely knows what to do with him. He is most annoyingly and unmanageably fidgety. He is worse, if possible, than the young student who cannot keep himself still for a moment, but worries his neighbours, and distracts the lecturer to a degree of which he has little conception.

There is a species of dog, the favourite of the ladies, the detestation of every man, and the essence of whose character and constitution is fidgetiness or perpetual motion;—I mean the small French poodle. From the earliest to the latest hour he is in incessant action; distinguished by no peculiar intelligence, by no disinterested affection, by no peculiar submissiveness even to those by whom he is fed. He is an apt illustration of that undue accumulation of irritative nervous power which torments himself and all around him except his mistress; until it has found an outlet through which it may be expended.

**IRRITABILITY AT THE COMMENCEMENT OF DISEASE.**—There is another species of sensorial irritation which is more decidedly connected with disease; not merely a shifting of the posture, or the irregular movement of a particular limb, but a continual restlessness and wandering. The horse at the commencement of almost every febrile attack, is shifting his posture and his place every instant; lying down and getting up again, pacing around his box, and measuring it in every direction. The sheep under the influence of

the hydatid will wander to the farther part of the pasture; lie down, gaze mournfully around him, and then get up and wander again; some strange convulsive motion of one of the limbs interrupting or giving a singular character to his walk. The dog, when rabies is about to establish itself, is the most irritable restless being that can be conceived of, starting convulsively at the slightest sound, disposing his bed in every direction, seeking out one retreat after another in order to rest his wearied aching limbs, but quiet only for a moment in any one, and the motion of his limbs frequently simulating chorea, and even epilepsy.

**PAIN FROM OLD WOUNDS AND FRACTURES.**—There is another morbid sensibility of certain parts, very peculiar in its character. There has been lesion or bruise of the integument; and although the wound has healed, and the injured portion appears externally to have been perfectly restored, the nervous fibrils have not regained their healthy tone. Circumstances of the most trifling nature excite a degree of uneasiness that often degenerates into extreme pain. A change takes place in the weather; the weight and pressure of the atmosphere has considerably varied; it has materially diminished; and the balance between the pressure of the external air and the resistance or elasticity of that within the integument is disturbed. If the parts were in a healthy state they would scarcely be affected by, or would accommodate themselves to the change, but they retain, from this previous injury, a degree of morbid irritability, and considerable uneasiness or acute pain is felt in the part. The corn shoots, and the rheumatic joint aches, and the nerve of the carious tooth gives torture scarcely to be borne. There are few persons who have attained to a considerable age without being painfully conscious of many atmospheric changes. The foot, or the stump, is as true an indicator of the weather as the best barometer can be. Some pride themselves on this gift of prophecy with which they are beginning to be endowed; but it is a faculty dearly purchased at the expense of many a twinge and many a cramp.

**IN ANIMALS: THE HORSE.**—There is scarcely an animal that comes under our medical care in which nearly the same affection is not visible. A valuable horse has been ridden by day and by night, in fair weather and in foul, at moderate speed, and sometimes almost without compassion. He has been lame many a time, and I have traced the situation and nature of the lameness; he has been lame at other times, and there was not the slightest heat, engorgement or tenderness to point out to me either the one or the other. After awhile it disappears; but it returns again, perhaps after some severe exertion; possibly without any assignable cause; until, at length, I begin to trace a coincidence between a return of the lameness and cold and wet weather. I examine still more carefully, and I find that the lameness precedes the atmospheric change. I dare not go farther. Thus far, however, I have been able satisfactorily to go; and mentioning the circumstances to other practitioners, or observant horsemen, I find that their conclusions and mine do not materially disagree.

**THE DOG.**—The huntsman has better opportunity for observing these things. He has had the chest founder in his kennel, possibly owing to his own negligence, or the aspect of the building, or the soil on which it stands. He has observed these periodical lamenesses among his dogs; he has connected them with atmospheric change and atmospheric influence; and by degrees he has begun to observe that the change in the dog, at least, accompanies, and mostly

precedes the change in the weather; and he begins to regard the tucked-up appearance, or the disinclination to move, or the lameness, or the yelping of old Dido, as a seldom-failing prognostic of bad weather.

All this is referrible to certain parts of the frame once injured, and never perfectly reinstated; still retaining a considerable portion of morbid sensibility and affected by circumstances that would be powerless with regard to the perfectly healthy constitution or part.

**ATMOSPHERIC INFLUENCE CONTINUED.**—The quadruped or the feathered biped, however, is far more exposed to the influence of atmospheric changes than is the human being; for he has not the means of sheltering himself from the biting storm, and he is exposed to a greater variety of accidents, and therefore he will be likely oftener to have these morbidly sensible portions—these inlets of pain and disease. Nature has been doubly careful of these animals; she has denied them a degree of feeling which would be a curse to them rather than a blessing; and she has furnished them with an apparatus by means of which they may, for a longer time before these changes of weather, and without any of those annoying ailments which make the human being weatherwise, be warned of the approaching storm.

**THE NATURE OF ATMOSPHERIC INFLUENCE.**—The changes of the weather are dependent upon changes in the electricity of the atmosphere generally, or of some of the gases of which it is composed. An alteration of density, or temperature, or moisture, or drought, is the effect of this electric change. Were not the animals who were destined to live amidst these influences protected from their immediate and sudden effects, life, and all the comforts of life, would be endangered or soon destroyed. Were too much of the fluid portion of the frame rapidly absorbed by the surrounding drought, or the necessary exhalations from the surfaces suddenly arrested by the immediate contact of moisture; were the vital heat to be stolen away by the surrounding air more rapidly than it could be generated; were that species of electricity, call it by what name you will, on which the vital power depends, to accumulate rapidly and without bounds, and cause the flame of life to be quickly exhausted by excitation; and were that which exerts at once its negative and depressing power, to rush upon him without warning, existence would often be at hazard, and ere long extinguished. Nature has therefore given to these animals a protection against these influences. She has covered them, more or less thickly, according to their wants, with hair, or wool, or feathers, bad conductors of heat, of electricity, and of moisture, and resisting for a certain, and often a considerable time, their painful or injurious effects. She has done more; she has placed a sentinel that never fails to tell of the distant approach of the most dangerous of these foes. The hair, the wool, and the feathers, are formed of highly elastic substances, and all terminate in points. The slightest impression made on the extremities of them is rapidly conveyed to the root; and that root is imbedded in a tissue of nervous matter; so that from the slightest change of external influence a feeling is communicated, allied to, yet different from, common sensation, and which can never be overlooked or mistaken. We go into a room in which an electrical machine is worked. There is no indication from the skin, or from the more delicate sense of touch, to indicate the change which is taking place in the electricity of the atmosphere of that room, and we should approach near enough to receive the spark or the shock, without being aware of our danger, were it not for the

hair, which begins to move and to stand on end, and to tell us what is going forward.

INDICATIONS OF ATMOSPHERIC CHANGES BY ANIMALS.—The commencement of the electric change long precedes its palpable and manifest effects; and thus the animal is placed upon his guard, and seeks for shelter, or lays in a provision of food to last him during his retreat, before the rain and the storm come on. A connexion between certain actions of the domesticated animals, and certain atmospheric changes, has been observed and registered from time immemorial. I do not know the quadruped slave that does not occasionally give us warning of them. Have you never observed the restlessness, and uneasiness, and the occasional starting of the horse you are riding—or the crowding of the horses that are at grass to that part of the field where the pasture is most luxuriant, and most easily and quickly got at? Have you never attended to the intimation which was given by the frequent and impatient braying of the ass, and the continual shaking of his ears?

'Tis time to cock your hay and corn  
When the old donkey blows his horn.\*

When cattle begin to chase each other around the pasture, either voluntarily, or in consequence of the persecution of the fly, or bellow as they run,—when they assemble together in a corner or part of the field, and with their tails against the wind,—or when they stand with extended nostrils, and with the head up snuffing the air, the farmer suspects that rain is not far distant.†

When the swine run squeaking about, throwing up their heads with a peculiar jerk, and carrying pieces of straw in their mouths, it is said that windy weather is near at hand. The country people say that “the pigs certainly see the wind.”

The sheep either crowd to the best part of the pasture, or indulge in unusual gambols and vagaries. I once resided near Kingston, and had lodgings opposite to Hampton Court Park: and I need not no more certain barometer than the deer. As soon as I got out of bed, I used to observe in what part of the park they were. If I could see many of them, and towards the Duke of Gloucester's Lodge, it would be a rainy day; and it would be useless for me to get my fishing tackle in order. If there were a few of them straying about in that direction, it would be one of those cloudy and partially showery days when I was sure to get sport. If I could not see one of them, I might be guided by other circumstances as to my expedition; but one thing was certain, that not a drop of rain would fall on that day.

INDICATIONS CONTINUED.—I will not much longer detain you about this. “When the ducks quack loud, the peacocks cry”—when the cock crows at unusual hours, and crows a great deal in the daytime, and particularly in Summer—when the poultry are more than usually busy in oiling their feathers—when the water-fowl more frequently wash themselves, and flutter about in the water, or take wing, and dash along with unusual clamour—when the swallows fly low, and the missel thrush sings most loudly and yet most beautifully—when the pigeons return slowly and unwillingly to the dove houses,

long before the close of day—when the familiarized and half-tamed redbreast pecks most impatiently against our windows—when the rooks return home early, or if they remain in the fields are joined, in greater quantities than usual, by the jack-daw and the starling, or when they whirl furiously round, and dart rapidly down from an immense height in the air (“they seem precipitate to fall, as if they felt the piercing ball”); rain is at no great distance, and storms will accompany the rain. All these circumstances, gentlemen, do not indicate any morbid state of sensation, but a peculiarity of it, wisely and kindly given to them as a warning of approaching inconvenience or danger. Some of you, who have not quite forgotten your classical learning, will probably recollect how beautifully Virgil describes these things in his first *Georgic*.\*

THE PAIN OF AN INFLAMED PART.—The sensibility of the nerves may be increased by certain changes of their condition or that of the parts on which they are distributed. Pain is the constant attendant on inflammation. This has been explained in various ways. The essence of inflammation, or the immediate consequence of it, has been said to be increased determination of blood, turgescence of the capillary vessels, increased interstitial deposit, and consequent compression of the neighbouring parts, and pain as the necessary result of that compression. It is, however, enough to say, that the sensibility or the function or action of every part is in proportion to the quantity of arterial blood—the *primum mobile* with which they are supplied. Those parts which, in their natural state, are the most sensitive are those which are most abundantly furnished with blood-vessels, as well as with nerves; and the increased sensibility in inflammation depends on the increased determination to the part producing a morbid discharge of the natural functions.

ILLUSTRATIONS.—Is any laboured proof required that inflammation is attended by acute pain in the quadruped as well as in the biped? Take that singular disease in the horse, inflammation of the subcutaneous tissue of the hind leg, attended by enlargement, sudden, painful, and enormous. The horse is well to day, and to morrow he is gorged from the fetlock to the sacrum. The whole of the integument is tense, red—red even in this animal, whose skin is thick and covered with hair; it is of a glossy red, and an ichorous discharge is forcing itself through every pore of the distended integument. The very appearance bespeaks the torture which the animal endures; and if the finger is laid on the part tight as a feather, the leg is spasmodically caught up, the animal is thrown quite off his feet, and often falls upon and injures the incautious examiner.

Observe the quickened pulse, the haggard countenance of the horse, labouring under acute founder, the continual shifting while he stands, the resting of the muzzle on the diseased part when he is down, and the groans that are at almost every moment extorted from him, and no doubt can remain with regard to the torture which he undergoes.

\* *Haud equidem credo quia sit divinitus illis  
Ingenium, aut rerum fato prudentia major;  
Verum, ubi tempestas et cœli mobilis humor  
Mutavere vias, et Jupiter humidus Austris  
Densat, erant quæ rara modo, et quæ densa relaxat:  
Vertuntur species animorum, et pectora motus  
Nunc alios, alios, dum nubila ventus agebat,  
Concipiunt; hinc ille avium concentus in agris  
Et lætæ pecudes et ovantes gutture corvi.*

\* “I once noticed,” says Mr. Forster, “that a donkey confined in a yard near the house on a showery day brayed before every shower, and usually some minutes before the rain began to fall.”

† ————— Bueula cœlum  
Suspiciens, patulus captavit naribus auras.

VIRG. *Georg. I.*

VIRG. *Georg. I.*

**NEURALGIA.**—A painful affection of some particular organ or spot, or the body or ramification of some nerve, is a disease fortunately not of frequent occurrence in the human being. It can easily be imagined that inflammation of a sensitive nerve—the determination of an unnatural quantity of arterial blood to it or its neurilema—would be the cause of exquisite pain; and on examination after death, mechanical injury of the nerve, or inflammation of its substance or neurilema, or of the cellular substance surrounding, with spots of ecchymosis and general thickening of the parts, have occasionally been discovered. In other cases, however, and perhaps the greater number, dissection has cast no light either on the precise seat or the cause of the affection. Scarcely in any case during life is there sufficient acceleration of the pulse, or tenderness on pressure, or heat or coldness of any part, to account for a thousandth portion of the torture which the patient endures.

**NEURALGIA IN THE QUADRUPED.**—Then what shall we be justified in affirming of its existence and character in a dumb animal; or how shall we so accurately detect its precise situation as to apply the only radical cure—generally speaking, at least—the division of the nerve? How shall we ascertain the real nature and character of a complaint which demands an essentially different kind of treatment in different cases? How shall we determine whether it be inflammation of the nerve or its neurilema, or irritability of the one, or both?—essentially different states, and demanding, in a variety of instances, the application of almost opposite remedial measures. Here we acknowledge and deeply feel our inferiority.

**RHEUMATIC NEURALGIA.**—The existence and the treatment of this disease, in one of its associations, we are, perhaps, justified in predicating with regard to the horse. It may afford us a clue to the cause of those flying lamenesses to which I have alluded, and that are frequent in old and rheumatic horses, and younger ones whose powers have been too severely taxed. The lameness is excessive, and the pain is evidently excruciating. The animal dares not to rest the slightest portion of his weight on the limb, or even to touch the ground with his toe. He is heaving at the flanks, sweating profusely, his countenance plainly indicative of the agony he feels; but we can detect no heat, or swelling, or tenderness. It is a pure nervous affection.

**FLYING LAMENESS.**—What do we do? We abstract a little blood—we give a dose of physic—we foment the whole of the limb—we put some additional clothing on the animal; and the next morning we often find him well, or we find that leg well and another leg similarly affected. Is this neuralgia or rheumatism? or a compound of both? These are questions which we cannot answer; for our patient cannot point out to us the precise situation of the pain, as being in the course of a nerve, or spread over the fibrous membrane of a joint.

**FRENCH OPINIONS OF IT.**—In the French school neuralgia is decidedly admitted as a malady to which the horse is occasionally subject; but it is said to be accompanied by that peculiar twitching whence it derives one of its names—the *tic douloureux*, or painful muscular spasm; at least it is affirmed, that this is the only symptom by which it can be recognized.

Hurtrel d'Arboval, professing to quote from the records of the veterinary school at Lyons, speaks of a horse that had a convulsive agitation of the head up and down, and other unusual but momentary muscular spasms, and evidently suffering a great deal of pain, but in every other respect being apparently well. A long course of anti-spasmodic treatment

had no effect upon him; but he was cured by being put to severe post work. This account is very unsatisfactory, and the case appears to be one of chorea instead of neuralgia. I have in vain searched the records of this school for the original description of the case.

Vatel gives the most unobjectionable account of it. He says that "the absence of heat of the skin, and frequency of the pulse, contrasted with the evident intensity of the pain and the disordered function of the part, form the surest diagnosis. Inflammation sometimes succeeds, especially when the attack is of long duration; then the lesions observed on dissection are of an inflammatory character."

**PRURITUS.**—That the domestic animals are subject to intense and intolerable pruritus, we have almost daily proof. The sufferings of a dog with acute red mange, and the lacerations which he sometimes inflicts upon himself, are dreadful. I have seen him wrought up to that pitch of insanity, that he has torn great pieces of integument, and even of muscular substance, out of his flanks and the inside of his thighs. It was scarcely a week ago that a mare in our infirmary with a papular eruption on her haunches, broke her halter in the night, and blemished herself for life by tearing away mouthfuls of hair and of integument too. A lotion of diluted hydrocyanic acid afforded her almost immediate relief. Sheep affected with the scab appear to be dreadfully tortured by intense itching. The wool is torn away in mouthfuls—the skin is lacerated in numerous places—the animal is in incessant motion, and pines away and dies in a less time than would scarcely be thought possible.

I do not know any case in which an excess of sensibility spread over the whole of the skin, not as a consequence of cutaneous disease, but an evident affection of the sensitive nerves; a very singular one of hemi-hyperæsthesia, however, if I may so call it, did come under my notice. A horse was bitten in the left hind leg by a mad dog, and in process of time he became rabid. The owner would not have him destroyed, and he was slung, in order to prevent mischief to himself or others. When I approached that side the poor animal was agitated, and trembled, and struggled as well as he could; and if I touched him only with my finger, a profuse perspiration broke out, and the pulsations were quickened more than ten beats in a minute. If I went round to the right side, he permitted me to pat him, and pressed his head against me, and sought my notice. There are several cases recorded of the human being, in which the sensibility was morbidly increased on one side, while on the other side there was the natural degree of feeling, and in some cases much less than the natural degree, and even none at all. Two sets of perfectly opposite symptoms, produced by the same cause, existed at the same time, and the barrier between them was the median line of the spinal cord.

**CONCLUSION.**—Well, gentlemen, I terminate this obscure and comparatively profitless subject. We have no data, and we must not reason without them. The only conclusion, perhaps, at which we can arrive is, that in the common and healthy state a certain degree of nervous sensibility is, for wise and benevolent purposes, withheld from the brute; but that the diseases of the nervous system present much similarity, or almost identity, and that under disease a great degree of suffering, perhaps not an equal one, awaits both.

Of the treatment of these neuroses I have said but little, because I know but little of their nature and their indications of cure. Perhaps, if our knowledge of them approached to that of the human teacher, I

should still be cautious what I said; for, while not a single veterinary surgeon treats on these complaints, I find, when I have recourse to medical authorities, that the physician most uniformly and most strenuously recommends constitutional treatment, and with the surgeon there is nothing like the knife; and with both of them I should begin to fancy that "there is nothing like leather," did I not recollect an honest and downright difference of opinion between two splendid surgical luminaries—still, however, teaching me a lesson of caution:—"The principal relief has hitherto been derived from operations," says Sir Astley Cooper: "The division of the nerves does no good," says John Abernethy.

### DISTRESS FOR MILK TITHE.

BY THE DEAN AND CHAPTER OF RIPON.

On Thursday the 7th April, Charles Oxley, Esq, and the Rev. J. Newsam, Justices of the Peace, for the liberty and borough of Ripon, granted a warrant of distress for tithe on milk due as was alleged, to the Dean and Chapter of the Collegiate Church, of Ripon. On *Sunday* evening, the 10th instant, the whole of the constables of the town received notice to attend at the Court House on the following day; and in attending, in pursuance of this notice, they received instructions to proceed to the cottage of William Darnborough, to assist in executing a distress warrant for tithe, and accompanied by the town serjeant and a bailiff, to whom the warrant was given, they proceeded to his cottage and seized and carried away in a cart provided for the purpose, one chest of drawers, six chairs, six hams, and two sides of bacon, which they conveyed to the House of Correction, as a place of safe custody—amidst the execrations of the numerous assemblage, which this extraordinary procedure had called. It will perhaps be in the recollection of our readers that on two former occasions, this same individual had his goods seized, and sold by public auction, for the payment of tithe, but on both occasions they only fetched about 2s 9d, no individuals being found wishful to purchase them; in consequence the expenses fell on the dean, without obtaining his claim. However, upon the third seizure, it became imperative they should be sold for their utmost value, accordingly they were removed (as before stated) to the House of Correction, and there impounded for nearly a week, when they were announced for sale on Saturday, the 16th instant, at 10 o'clock, in a croft behind the said prison; the whole of the constables again receiving notice to attend; a great portion of the inhabitants were also attracted to the sale, as it was generally understood that hirelings (or emissaries) had been engaged to scorne the full value of the articles, and in this they were not disappointed; but can it be believed that individuals, moving in the highest rank in society, could be found stooping to such dirty work, as to oppose a poor cottager, the father of ten children, in the purchase of his goods, which had been seized for tithe, and which he refused to pay, from conscientious motives. But the sequel will show that such, alas, was the case. The first articles offered for sale, were the six hams, when poor Darnborough bid one penny per stone, when a worthy Doctor (a lover of swine's flesh) immediately bid 5s—and a *gallant General*, 6s—ultimately they were knocked down to Darnborough for 8s 6d per stone, as was the sides of bacon and chest of drawers, they likewise fetching their utmost value. Darnborough, however, not wishing the worthy Doctor

to go empty away, suffered him to become the purchaser of the chairs for 10s, stating as his reason, that being aware his goods were about to be seized, he had these said chairs removed from a stable, the day preceding, they being infested with a noisome insect, and consequently thought it a favourable opportunity to get rid of them, he therefore wished the Doctor joy of his *lively bargain*. Thus concluded a sale, which, for attraction, has seldom had its equal, but exhibitions of this kind tend more than a thousand arguments, to show the baneful effects of the present system of supporting the church. The whole amount of the sale was 5l 6s 1½.

The annexed is a statement of the account against Darnborough after the sale.

	£.	s.	d.	
To amount of tithe.....	1	4	0	
Cost of summons .....	0	10	0	
Town Serjeant .....	0	7	0	
Entry with warrant .....	0	3	0	
Charge for keeping possession of Goods in the House of Correction	0	12	6	
Hand bills .....	0	5	0	
Auctioneer .....	0	10	0	
Writer .....	0	2	6	
Bellman .....	0	0	6	
		3	14	6
Amount handed back to Darnborough	1	11	7½	
	£5	6	1½	

The following document is in course of signature, and it is hoped that all who wish to see the practice of tithing their milk abolished, will avail themselves of this opportunity of recording their opinions; remembering the adage, "Who will be free, themselves must strike the blow."

We, the undersigned inhabitants of Ripon and its environs, have viewed with feelings closely bordering upon indignation, the proceedings adopted, at the instance of the very Reverend the Dean of Ripon, towards a poor, but industrious individual, named William Darnborough.

We cannot but believe, that proceedings such as these have a strong tendency to degrade the established clergy in the eyes of the people; to compromise the dignity of the established church; and above all, to impede the advancement of Christianity itself.

Nor can we cease to maintain, that the practice of compulsory collection of tithe is entirely at variance with the precepts of Him, who, when he sent his ministers on their mission, commanded them to provide neither gold, nor silver, nor brass in their purses, but rely upon the voluntary contributions of their flocks.

We, therefore, subscribe the sums placed against our respective names, as much to evince our sympathy towards an object of clerical persecution, as to express our abhorrence of the attempt to enforce the collection of a species of tithe, which is now so odious, in the eyes of the clergy themselves, that in many parts of England it is not demanded at all.

A new and important invention, called the "Catecharian Beam," has lately been perfected by Messrs. Richard Witty and Co. It is a simple and effective mode of giving strength and solidity to floors of warehouses and manufactories, and appears equally applicable in the construction of bridges and viaducts. The plan has received the approbation of many scientific and practical men, and by some of the latter, we understand, it has already been adopted.—*Birmingham Gazette*.

ON THE DANGER OF OVER-DRAINING MOSS.

(From the Quarterly Journal of Agriculture.)

In No. 31, of this Journal, published December 1835, was inserted under the head of Miscellaneous Notices, page 482, a very interesting communication on moss improvements by Mr. A. Blackadder. In that instructive essay there is an assertion, a very important one, in which I do not accord; and coming, as it does, from a gentleman versed in such matters, it is calculated to mislead practitioners, if not contradicted. I therefore hope I may be excused in attempting a comment on the subject.

The assertion to which I allude is expressed in page 484, line twenty-six. I quote the line, as the print is close, and the sentence short, and might escape notice: "There is no danger of over-drying moss by draining." I admit that saying is correct in a general sense; but practice has furnished many exceptions to that general rule, some of which have come under my own observation. I select two of those, much in point, and will give them in detail.

On my riding over a gentleman's estate in Staffordshire many years ago, my attention was particularly directed to a moss which had been drained several years previously. It was then in a very unprofitable state, and was still deteriorating, principally owing to its having been over-drained. The moss was situate in a basin or valley surrounded by hills, the soil of which was sandy gravel, and the soil on which the peat was recumbent was of similar texture. In the draining operation a wide and deep ditch had been cut quite round the outside of the moss, at a great and unnecessary expense. That excavation, for so it might be termed, had effectually cut off the springs issuing from the bottom of the hills, and a considerable body of water was collected and flowing current at the bottom of the immense ditch. A large centre-drain, with tributary cross-drains, had also been cut through the moss. Those produced but little water at the time I viewed them, the former supply having been cut off by the exterior drain.

The sand and gravel thrown out of the drain had been spread over the moss, and the greater part was under arable culture. I was told it had also been well cultivated, limed, and dunged; but I must say, I never saw land of any description producing more miserable-looking crops of oats, barley, buckwheat, turnips, and potatoes. The only vegetable-looking promising was a small patch of rape. On one part the old turf had been pared and burned after the draining, but even there the crops were alike deficient. All the ploughed land was light and puffy, and the horses' feet sank deep into it. The mossy substance was fast decomposing and evaporating, and I was told the surface had then sunk four feet in level from the time of its being drained. I had no reason to misdoubt that statement, indeed it was evident that, in a very few more years, a small residue only of the moss would remain, and the sandy soil at the bottom be left without cover; that is, supposing the arable culture to be continued, and even if attempted to be laid down to pasture, grass seeds were not likely to take upon such loose puffy ground. As to the part not ploughed, it was in a little, and but a little, better state. It had also sunk greatly in level, and sand and gravel from the ditches had been spread over it. The herbage it produced was thin, stunted, and poor, principally

brown bents and Yorkshire soft grass, and these the stock did not eat. I observed, that had the lime and dung which had been thrown away upon the arable moss been applied to the pasture, and proper grass seeds sown, it would have tended to a better purpose; but even then a good pasture could not have been obtained upon that over-drained moss. The great expense incurred by the owner was thus misapplied; in fact, the occupiers told me the moss was far more valuable to them before the draining was commenced. I never saw a more complete failure in any similar undertaking.

I also viewed another moss upon the same estate, and only a short distance from the former,—it had been managed in a more rational manner. It was only partially drained by means of ditches cut across it, but not to the bottom of the peat; gravel and lime had been spread over the surface, and the turf had not been broken by ploughing; it produced pretty good herbage close eaten by stock: I observed white clover, florin, and many good meadow grasses. That land was rented at 20s per acre. The turf was thick and tough, and, in riding over it, the horses' feet left no impression, though it sounded hollow. It was dry weather at the time of my visit; the land would probably be poachy in winter, but the price at which it was let—and the tenants did not complain—was the true test of its value. I had no reason to believe there was much difference in the relative value of those two pieces of moss land, acre for acre, previous to draining; but certainly, when I saw them, the partially drained was better worth 20s the acre, than the thorough drained at a nominal rent.

Hence, judging on the two cases I have here stated, and of others similar in result which have come under my observation, I think I am fully justified in drawing a conclusion, that there is danger in over-drying moss by draining, especially where the soil on which the moss is incumbent is of an inferior description. F. B.

PRICE OF OXEN IN 1674.

Sir Roger Moyston had a great intimacy with Pyers Pennant. The following is the copy of a letter from the former to the latter:—

"Dear Pyers, Moyston, March 14, 1674.  
"I hope you will excuse me for the 4l you owe me for the pair of oxen, for I want the money to make up 20l to send my son to Oxford next week.

"I am, dear Pyers, &c.  
"Roger Moyston."

It appears, then, that 4l was the price of a pair of oxen in 1674, and that the Baronet of Moyston sent his heir apparent to the University with 20l in his pocket.

FORMER CONTRACT PRICES FOR HORSES AT THE WAR OFFICE.

In 1766-67, 21l. 1768 to 1792, 23l 2s. 1793 to 1802, 26l 5s. From 1803 to 1810 an allowance of 2s 6d per horse was made for every eighteen miles travelled, except the first eighteen, from the place of purchase to the head quarters of the regiment. This was raised to 3s in 1811.

CONTRACT FOR MEAT AT THE VICTUALLING OFFICE.

	Beef.	Pork.	Butter.	Cheese
	per lb.	per lb.	per lb.	per lb.
1687-1700-17 yrs.	2½d	3d		
1701-1766-66	2½	2½		
1767-1789-23	2½	4½	6½d	3½d
1790-1803-14	5	6	7½	5½
1804-1810-7	6½	6½	10	7½



## AGRICULTURE.—THE TITHE QUESTION.

We have taken the following extract from a pamphlet, entitled a "Third Letter to John Disney, Esq. on Reform in the Church and Commutation of Tithes," by James Trussell, farmer, of Woodham Ferns. This is not the first time that Mr. Trussell has appeared before the public as an author, with credit to himself and advantage to the community. To those who are warmly interested in the advancement of agriculture and the agriculturists, it is highly gratifying to see a "farmer" the author of any publication, and doubly so to see him proud of putting the stamp of his occupation on his title-page. We trust this literary improvement will progress amongst farmers as among other classes, and that Mr. Trussell's example will be followed by others. It is, however, not upon this ground alone that the little pamphlet now under notice is of value. It contains much valuable information upon subjects which do now, and must still further engross the attention of our legislators. We strongly recommend its perusal.

"I shall now proceed to state how this all-important question can be settled with justice to all parties connected with it; and when once passed into a law, it may remain so for a thousand years, ay, for ever, or as long as England shall remain in a state of civil society. I recommend, first, that an Act of Parliament be passed to alter and amend the laws relating to tithes, to come into force from and after Michaelmas-day, 1838. I should have said, it is not my intention to go into the full detail of this measure, as it would swell this pamphlet much beyond its intended limits, but shall compress my statements to as small a space as I can. The landowners and the occupiers of the country have been struggling with an unparalleled distress ever since the war ceased in 1815, which has reduced thousands of owners and occupiers to poverty. Of the various burthens they have had to contend with, the tithe has been one of the most serious, and has always been a great hindrance in the improvement of the soil, as well as the employment of the labourer. The maintenance of the labourer, when he has become chargeable to the parish, has fallen more heavily upon the tillers of the soil, as four to one, than upon any other portion of the community; again, the Malt tax has increased this charge; thus showing that the soil of this country is taxed to an enormous extent; and if there is a chance of relieving it of some portion of this oppressive taxation, without inflicting an injustice on any party, I say let it be done. If observations like these will not arouse and create an interest with those who are so materially concerned in them, I cannot tell what can be advanced that will; perhaps from their indifference and inattention, they may be saddled with a law that will inflict a lasting evil upon them and their posterity.

"I beg to observe, further, if the present proposed bill of my Lord John Russell is passed and carried into effect, it will inflict the greatest piece of injustice, first upon the owners, by a depreciation of the value of their soil to let, it being subject to a certain and serious charge, not taking into account its natural disadvantages, but its

state of cultivation only; secondly, it will affect all those who are under existing engagements the remainder of their term, and thus increase instead of lessen their present charge for tithes.

"Again, I conceive it quite a fallacy to go back for a term of seven years to draw a medium by; we want no such thing, for a far better plan is at hand. I would appoint a board of not less than five of our gentlemen in the commission of the peace in each county; they should have a register office in every county town, where they should meet from time to time to hear all appeals, if any should occur, between the opinion of the owners, the occupiers and the valuers. I would then have the dimensions of every parish, and the names of the patron and incumbent registered, with the names of the owners and occupiers of the different estates, and the amount of the present assessment, which would serve as a guide or reference when required. Secondly, I would appoint three of the most practical men in the county, from different districts, who should be thoroughly acquainted with all the different culture and process of occupations in the same, and who should go over, not only every farm, merely crossing it, but should go into every field, and take into account the different advantages and disadvantages of the same which would enable them to come to a much more just conclusion. If this ever should take place, let it be done properly, as it will then be likely to settle at once all the different opinions that may arise upon it. These gentlemen, the surveyors, should not be paid at the extravagant rate of five but at three guineas per diem, which would amply remunerate them for their time and services, and include all charges. When they came to their own property and occupations, the owner should step on one side, and the two, with the assistance of the nearest surveyor in the adjoining county, should assess the property. By thus conducting the valuation, it would at once do away with all jealousy as to the managing this important business, and put an end to all disputes in future. A fair and just assessment would thus be arrived at, and nearer the value nine times out of ten than could be determined by any of the valuers of the metropolis, who cannot, for want of practical information, be able to form so just an opinion as those whose time and lives have been spent in the occupation of the soil. I would have the valuation so made as to relate to the value of the land to let only, taking into account its natural state, and its capability of producing a given quantity of wheat or other grain, which is the grain that almost all our valuations are made by, and our rents drawn from. Perhaps it may be advisable to take in barley and oats in the more northern counties, where wheat is not the staple article of the soil; I would have no reference as to the present amount of rents charged, as that would inflict a great piece of injustice upon the occupiers, for there are thousands of instances where the rent is too high by one-third, according to the present prices. There is land in this parish that is charged from ten to twelve shillings per acre more than it is worth. If the value of the tithe is to be drawn either from the present state of the culture of the soil, or by the present rents, it would inflict great injustice upon the occupier, and at the end of the term the owner would have the good luck to be saddled with a new tithe charge in perpetuity. The proposed bill will at the end of all the existing engagements with the occupiers affect the owners of the soil, and they will find, when too late, they

have been saddled with a rent-charge upon their estates for ever, and their land must be let subject to their paying the tithe, as it will not be any part or bargain with the tenant; he, being made acquainted with the amount of charge for the tithe, hires it accordingly. To make it more plainly understood, I will suppose two farms equally situated, and of a quality that will yield for rent with good cultivation, three bushels per acre, with wheat at 5s per bushel, gazetted price, amounting to 15s per acre for rent—new system of charge for tithe 6s per acre; the landlord stipulating with the tenant to pay the same, he hires accordingly—namely, by giving 12s per acre instead of 15s per acre, thus leaving the landlord to pay the difference of 3s per acre out of his own pocket. If we show it in figures it stands thus—

Rent at 3 bushels per acre, and 5s per bushel .....	15s	} £. s. d.
New system of tithe, exclusive of deduction .....	6s	
The two sums above, amounting to 3s per acre more than the occupier can afford to give, which makes the account as under—		
Rent 3 bushels per acre, at 5s per bushel .....	15s	} £. s. d.
One-fifth part of the proved value of land, at 15s per acre, is the full value of the tithe, including all costs and charges in collecting, getting to market, &c. ....	3s	

the two sums amounting to 18s per acre, and which sum is all the land can be made to bear, for if any further sum is charged upon it, the cultivator cannot bear up against his expenses, as shown in my first pamphlet, pages 9 and 10. The cultivators of the soil cannot continue to occupy without an abatement of their indirect taxes, and the landowner cannot be expected to bear the whole. The tithe owner must always bear in mind that the occupier has to pay a heavy charge in the shape of indirect taxation, in raising the amount of composition which is paid in lieu of tithe, in labour, first in cultivating, and, secondly, in gathering, housing, and getting them to market. It has been plainly shown that Lord John Russell's proposed alteration would inflict a lasting injustice upon the owner of the soil, and a further additional charge upon the tenantry, so long as their present engagements are in existence.

But, Sir, to return to the object of this letter, I would have the Act framed to instruct the valutors to assess the value of all lands to occupy at the rate of 10 pounds per load, taking into account the different properties and capabilities of production with good culture, and without any additional expenditure; with the advantages and disadvantages of the different occupations, to let at the above-named price, which should regulate all future prices, if you once can determine how much in a given quantity of wheat, barley, or oats per acre a certain farm or farms will give for rent, according to the natural qualities of the soil, as I not only contend you can, but am quite satisfied it can be done, with as much correctness as you can set the rent in the usual way. When you have once arrived at this, you have overcome all your difficulties, and have attained a solid basis, as I before observed, which will last as long as civil society exists in Britain. The prices should range between ten and twenty pounds per load, for as observed in my first pamphlet, page 26, wheat is never likely to average a higher price than twenty pounds per load, on ac-

count of the great facility of steam navigation. I should say, without a great dearth, it will seldom, if ever, reach that price, and should it do so it will not continue long. I feel quite satisfied the occupation of the soil of this heavily taxed country cannot be carried on at a less average price for wheat than 14l per load, with full average crops, barley at an average price of 35s per quarter, oats at 26s per quarter, beans and peas at 40s per quarter. With the above prices, the malt-duty totally repealed, the tithe commuted and placed upon the after described system, and the currency put upon a proper basis, the occupiers would be able, by adhering to the strictest economy to meet their expenses. I shall begin with soil of an average quality, (see page 27, in my first pamphlet,) which will yield, if properly cultivated, two quarters six bushels per acre; although, as before observed, I have seen two able statements less by four bushels per acre than the above; one was from the central committee of Yorkshire, held at the end of last year; the other I cannot at this moment call to mind; two quarters six bushels per acre will give for rent at 6s 6d per bushel, or 13l per load, 16s 3d per acre. This sum, ranging between 10l and 20l per load, the charge for tithe should rise and fall with the price of wheat, between the above two sums. The tithe-owner would then participate with the land-owner, the occupier being subject to pay more or less, according to the rise and fall of the gazetted price, made up at Michaelmas, once a year, and taking the average for the whole year, which I conceive to be the most fair, plain, and easy way to go by. Having arrived at this, as I conceive, solid basis for rent, for I cannot suppose what can be brought forward to upset it; now follows the question, what portion or amount of charge upon the rent would be equivalent to the tithe-owner in lieu of tithes. Having seen and heard of different statements as to amount, some more and some less, where a portion of the fieldings was enclosed in the different western counties, I find that the portion set apart for the clergy was a sixth, but our lands having been long enclosed, and not being subject to this charge, I conceive, to do justice to the receiver as well as the payer, that one-fifth of the amount of rent for arable, and one-seventh for pasture of a certain quality, (a more ordinary quality should be charged but one-eighth, and the more ordinary but one-ninth,) would be a just medium between the payer and receiver, clear of any deductions, which should be as above stated, subject to rise and fall, between the two sums of ten and twenty pounds per load. I have no hesitation in saying it is first a just payment between the parties, and secondly one that is the very nearest the value that can be determined upon. Perhaps it may be said by some that one-fifth is too large a portion and too serious a charge upon the soil. In answer to that observation, I feel no hesitation in stating that the cultivator would gladly continue it rather than be either harassed or made liable to have the advantage taken of his improvements, by an additional charge, when such have been made. I would not recommend to make any difference in the two sums mentioned, where there was not more than twenty acres to the hundred in pasture; where there is that quantity of good sound pasture to the hundred acres it increases the value to occupiers, but over that quantity it should become subject to the latter payment, namely one-seventh part of the rent. Perhaps it may be said by some, why continue to charge me one-fifth upon the estimated value of my land as arable, as I have now

laid it down into pasture, it being more pleasant for me to do so, or it being a soil quite exhausted from cropping, and I wish to make trial of what resting and grazing will do for it. I would allow the parties to do so, and come under an exemption, but not until it had been laid down for three years; after that period it should come into the class of one-seventh, but not if there were not more than twenty acres of pasture to the hundred, for I feel fully persuaded that a larger amount can be drawn from one hundred acres of land where there is twenty acres of pasture, than a less quantity, or when the whole hundred is arable, deducting the different expences of the culture of the one and the other, with or without the pasture. Again, I find from my own reasoning and taking into account the cost of severing, horseing, and getting to market, that one-fifth part or amount of the rent is a full value or charge for the tithe, taking into account the certainty of the payment, the landowner being made subject to its discharge, which would at once supersede all losses, and would at all times be consolatory to the tithe-owner. One fifth is a full tithe where land is cultivated without artificial measures, such as chalk, lime, and other expensive manures, brought from a long distance, or by feeding cattle or sheep with cake and corn as before observed, and by expensive fencing, draining, &c.; all this assists the soil in producing an additional quantity of grain, which never did in justice belong to or ought to have been collected by the tithe-owner, whether clerical or lay.

From the best of information, and from the different calculations that have been made, it appears that the above named sums are the very nearest that can be determined upon as to the value of the tithe, as a rent-charge upon the soil. In endeavouring to arrive at a conclusion, I have had some hesitation, as my only wish is (not to trespass upon either party, either payer or receiver) that the tithe-owner should make up his mind to take something less than he would under the old system, which cannot be endured any longer, and which has caused so much unpleasant feeling between the payer and receiver, that it calls aloud for its immediate removal. It has been found and admitted upon all sides to have been a great hindrance in the culture of the soil. I find from inquiry that upon the poorer and heavy soils in this county, where they have been well cultivated, they have been paying a composition to the amount of near one-third of their rents, which is a most ruinous charge; upon the better soils they have paid one-fourth.

To explain it further, I will take a farm of one hundred acres—the rent at 16s per acre. The occupiers have been paying a composition of 4s 6d per acre, and upon the soil let at 20s per acre, a composition of 5s and in some cases 5s 6d per acre, which cannot be borne any longer, at the low price we have experienced for our produce. If we set the rent at 16s 3d per acre, and take one-fifth of the amount as charge for tithe, it gives 3s 3d per acre, which is a very full tithe, with wheat at 13l per load, for two bushels and two pecks per acre of wheat at 6s 6d per bushel gives the above sum. If wheat should again reach the average price of 16l per load, the charge for rent would be 2½ bushels per acre, at 8s per bushel, making 20s per acre; a fifth would be 4s per acre for the tithe, and where is the person who will not admit if he understands the expensive process of the

culture of the soil, that 4s per acre is not only a full, but a remunerative price for the tithe. When the clergy are made fully to understand that the present system of charge and collection of the tithe has done great injustice to the owners and the occupiers of the soil, they will, I feel persuaded, be ready to relinquish it, and be quite prepared to receive what is a just and fair portion of its fruits, after the expences of culture are deducted, and not be like the sons of the priest of old, who were not willing to take that part which was appointed for them, but thrust in the flesh hook, and took the best and fattest of the meat.

Perhaps it may be said by some,—where wheat is at the low price of 10l per load, two bushels and two pecks will give for rent 12s 6d per acre, and that one-fifth for tithe (2s 6d per acre) appears to be a low sum; but, in truth, it is too high, for it should be borne in mind that the soil, at the price of 10l per load, is cultivated, as shown in my first pamphlet, at considerable loss. The occupiers, since the year 1814, have not only experienced great losses in farming, but many thousands have been brought to poverty, whilst the tithe owner has received more than he was entitled to. Again, the tithe owner should bear in mind the ruinous low price we have experienced for several years past, and whether clerical or lay should be ready to help or bear a part of his neighbour's adversity.

It may be answered by somethat they have done so; and this I am quite ready to admit, but to nothing like the amount of loss experienced. This plan of alteration of the tithe would be consolatory to the tithe owner, inasmuch as he would be made acquainted with the amount, and knowing it to be subject to deduction only by the regulation scale by which it would be set, he could not complain.

A statement of the highest and lowest prices of Wheat, per imperial quarter, in *Rotterdam*, in each of the years from 1829 to 1836 inclusive; with the rate of fluctuation per cent in each year.

Years.	Highest Price.		Lowest Price.		Rate of fluctuation calculated on the Lowest Price.
	s.	d.	s.	d.	
1829	52	4	40	6	29 per cent.
1830	50	3	39	11	26 do.
1831	60	8	48	11	24 do.
1832	46	11	34	5	36½ do.
1833	38	2	26	5	44½ do.
1834	34	5	29	11	15 do.
1835	31	4	27	6	14 do.
1836	Not any Returns yet received for 1836.				

A return of the prices of Wheat, per imperial quarter, in *Paris*, *Rotterdam*, and *London*, in the first week of March in the years 1832 to 1836 inclusive.

Years.	Rotterdam.		Paris.		London.	
	s.	d.	s.	d.	s.	d.
1832	45	6	No return.		61	2
1833	33	2	ditto.		54	11
1834	33	7	33	3	51	3
1835	30	0	39	2	42	9
1836	No return.		No return.		47	6

## OPERATIONS OF THE POOR LAW AMENDMENT ACT, IN THE COUNTY OF SUSSEX.

REPORT OF THE AUDITOR OF THE UCKFIELD UNION, FOR THE QUARTER ENDING DECEMBER 25, 1835.

To the Board of Guardians of the Uckfield Union.

Feb. 13, 1836.

GENTLEMEN,—In the last report which I had the honour to present, I stated my impression that we might calculate on a reduction of 40 per cent on the mediums. My reasons for not placing the anticipated diminution at a higher sum were based on the uncertainty of the approaching season, which will always be found to affect the averages of expenditure in unions where the labouring classes are, like ours, so dependant on outdoor employment for the winter.

We are also peculiarly circumstanced with reference to what may be termed "*migratory labour*."

A very considerable number of our labourers find employment in the vicinity of London, and various parts of Surrey during the hay season, passing on afterwards to the South Downs for the harvest, from whence they return in sufficient time for their own; and as soon as the work connected with hop-picking is over, these men are left for three months in a great measure dependant on wood-cutting for support; an inclement season, a deep snow, cuts off the sources of employment and brings the whole weight of the consequent distress at once on our rates. Other districts reap the advantages of their labour, but escape the consequences of their poverty, the effects of the agues often contracted during the summer, the relief for sickness among the younger branches of their families who remain at home, and all those contingencies of pauperism attendant on the condition of the labouring classes.

In those districts, therefore, where these migratory labourers are non resident, greater regularity and more fixed reductions in the expenditure may be relied on: while ours will be found to vary with the uncertainty of the produce of our hop-plations, and the vicissitudes of the winter seasons, until the providence and fore-thought of the labourer shall have provided against such results.

These were considerations which induced me to speak with some reserve in regard to our reduced expenditure; but I freely admit, that had I known of the favourable season we were about to experience, my predictions would have fallen far short of those advantages which are daily discoverable, as the operations of the bill become more fully developed.

The annual average expenditure in the parishes forming this union, for the years ending 1831-32, and 33, from whence our mediums have been taken, produces 16,643*l* as the sum annually disbursed in parochial relief; this will show an average monthly expenditure of 1386*l*, while a similar average on the union expenditure, including the repairs and alterations to the work-houses, will be found not to exceed 550*l*, being a difference of 836*l* per month, by which it will be seen a saving of 10,000*l* per annum will be effected; and I will venture to assert, after having considered the question in all its bearings, that that sum may be looked on with reference to the ensuing year as a permanent reduction.

But the mere saving of this sum is not the only nor yet the most important point of view in which the changes of the law should be regarded; the moral reformation effected, by checks given to

vice, improvidence, and indolence—the stimulus offered to industry, and *the means it has left in the hands of the rate payers to reward that industry*—have solved the question of surplus labour, by proving (in this union, at least) that where there exists a wish for employment, employment is to be found.

In the month of December, 1834, in the corresponding quarter of last year, upwards of two hundred and fifty labourers were out of employment, and receiving relief in consequence for their families, although the state of the weather was not of such severity as at all to impede the usual routine of a labourer's occupations.

In the quarter just past, at the end of a week's frost, and when the snow had stopped most of the operations in agriculture, the greatest number of able-bodied men in the workhouses was twenty-eight; which asylum was sought by many, rather as a temporary refuge from the effects of circumstances, over which they had no control—from a suspension of labour, not from want of employment.

Yet among this number there were, as there always will be, more or less, some, who, from a long continued course of idleness and misconduct, could find no one to employ them, who has hitherto subsisted on parish pay, then derived from a fund which is now devoted to the remuneration of labour. The well-regulated system of employment, the irksome confinement, the discipline of our workhouses, and I trust a sincere desire to reform, has induced some who were unmarried to enlist as soldiers, and by thus entering the ranks in his Majesty's service, they now form part of that body of men whose duty it is to support and maintain those laws and that peace which but a few months since they were among the foremost to outrage and disturb.

It is not from these circumstances alone that we have proofs of the beneficial operations of the bill; it may be sought for from other sources—not in the encomiums of its friends, but in the complaints of its enemies, none of whom feel it more severely or complain more bitterly than the keepers of beer shops, and in short all that class of persons who were thriving on the improvidence and demoralization of the labourer, but who now suffer from his reform.

The great mass of those individuals who were so clamorous against the new enactments, on the ground of cruelty to the poor, are now silenced by the fact, that nearly two-thirds of the sum that they contributed, is left in their own hands, for their *own* distribution, according to their own discretion; to such as were sincerely actuated by the feelings they expressed, and who concealed no sinister motives under the mask of charity, it must be gratifying to reflect that the sum formerly abstracted from the funds of private benevolence is thus restored to its natural channel; those humane persons will not have the satisfaction of dispensing that relief as charity, to be received with gratitude, which was formerly claimed as a right, and exacted by intimidation.

The shop-keepers who so strongly opposed the new measures have not found, in the result, the ruin they seemed to anticipate; with the exception of the contracts for flour, and the supplies for the workhouses (which no doubt will always continue,) they will find the bulk of the expenditure among the labouring classes, passing, as it has hitherto done, through their hands, with this difference however, that instead of having the

paupers' interest in the parish pay assigned to them, or, in other words, making the rate-payers, indirectly, become security for the paupers' debts; they will have to trust to the credit of the persons with whom they deal, which credit being measured by character, in showing the labourer its value, will teach him the necessity of its maintenance.

I shall avail myself of this opportunity to offer a few observations on the workhouses:—

I have remarked, in those allotted to the aged and infirm, the dress as directed by the regulations is not adhered to, and, on enquiry, find some parts of it only adapted to summer wear. I would submit to the board the propriety of correcting what appears to have been an oversight, and at the same time would suggest, for their consideration, the advantage of adding a round frock, as a warm and durable addition to the dress of that class of male paupers; I would not, however, recommend any alteration as respects the able-bodied.

If the stuff, which if possible should be distinguishable from that in common use, were purchased in London, the making of round frocks would afford employment for the girls in the school.

The junk which has been picked in the various houses might, I apprehend, be converted into rope-yarn, and a ready sale found in the neighbourhood for the bark-harvest, thatching, sack-ties, and other purposes. It costs, including carriage, less than 2d per lb, which price will allow for its loss of weight in picking; when made into rope-yarn it is worth 6d per lb; assuming that a man will pick 3lbs per diem, which is a low average, there will be a profit of 1s, from which will have to be deducted the labour of spinning, and the value of the tar used in its manufacture. I speak with hesitation of a subject on which I have not been able to obtain much information, but, from what I have learned, I think it both practicable and profitable, more so than by sending it for sale to Chatham or Newhaven, by which the expense of a long carriage will be incurred.\*

It would be superfluous to call your attention to our schools, the management of which has so often been noticed with approbation;—the system of teaching the children not only reading and writing, but such other things as may be useful in after-life, has induced me to advert to them, because we have in our workhouses partly disabled paupers, who might instruct the boys in broom and basket making, for the supply of the houses belonging to the union; it will be a matter for the consideration of the board whether any shall be publicly sold; but if, by that sale, a check were given to the practices of such vagrants as now obtain their subsistence by cutting and stealing under-wood for that purpose, it will be rather conferring a benefit on the public than inflicting an injury on trade.

I refer, with great satisfaction, to the state of the accounts, as kept by the paid officers of the union, which have exhibited, throughout, a care, attention, and accuracy, that demand my notice and acknowledgments.

I have to regret so much delay has been incurred in the transmission of the abstracts required by

the central board, for the expenditure of parishes in this union, in the corresponding quarter of 1834; but at the end of three weeks examination, experience has confirmed what my fears had anticipated—that the accounts of unlettered men, shopkeepers' bills, and the *chaos* of a parish chest, were by no means subjects from which the necessary returns were to be obtained, with the dispatch and accuracy I could have desired.

Where, however, my researches have not been so satisfactory as regards *figures*, I have endeavoured to supply the deficiency by *facts*; and for this purpose I have laid on the table an abstract of answers to several questions relative to what was formerly supposed to be "surplus labour." In calling your attention to it, I ought, perhaps, to observe that *no direct proportion exists between the sum paid and the number out of employment*; the amount of relief is a criterion only as regards the time for which a certain portion of this surplus labour was paid; neither will that afford a sure basis of calculation, as the scale of payment for parish labour was formed, not on the *earnings*, but the *family* of the pauper, varying from 6s to 9s per week. It is not, therefore, possible to arrive at any accurate result as to the amount of the expenditure under that head, in the years from which the mediums are taken; but I have no hesitation in expressing my conviction that it equalled the whole amount of our present relief for the two winter quarters.

The characters of the majority of those admitted into the houses for the able-bodied men, were such as to offer serious obstacles to their obtaining employment; one had already been convicted of felony, two were sent to prison from the workhouse, another was discharged for misconduct—few good characters entered—none remained long: it would be found, if the history of all were diligently enquired into, that the greater part were but the dregs of able-bodied pauperism, which the new system has so effectually strained off.

If, therefore, this question of "surplus labour" be at once set at rest, then the other questions, whether of migration or emigration, will also be answered, and thus, by degrees, disencumbering ourselves of these surplus subjects, we shall be enabled to devote a more undivided attention to such as remain.

I cannot conclude these observations without adding my humble testimony to the assistance afforded by our late vice-chairman, in directing the alterations so judiciously effected; it is his talent and perseverance, aided on all occasions by your experience and support, that have so materially conduced to those satisfactory results which have hitherto marked the formation and progress of this union.

I have the honour to be, Gentlemen, your obliged and obedient servant,

W. H. NEWHAM, Auditor.

### THE IRISH POOR ENQUIRY.

The third report on the expediency of a Poor Law for Ireland, just published, contains the following statements:—

"There were in Great Britain, in 1831, 1,055,982 agricultural labourers—in Ireland, 1,131,715; although the cultivated land of Great Britain amounts to about 31,250,000 acres, and that of Ireland only to about 11,600,000. We thus find that there are in Ireland about five agricultural labourers for every two that there are for the same

\*The experiment suggested has since been tried, but from a difference in the qualities of the junk, sufficient dependance could not be placed in the rope-yarn to justify an expectation that it would be brought into general use.

quantity of land in Great Britain."—(First Section.)

"We cannot estimate the number of persons in Ireland out of work and in distress, during thirty weeks of the year, at less than 585,000, nor the number of persons dependent on them at less than 1,800,000 making in the whole 2,385,000."—(Page 5.)

According to the Census Returns of 1831, there were then in Ireland, 1,867,765 male persons, aged twenty years or upwards, of all classes.

1. Capitalists, bankers, professional men, and other educated persons . . .	61,514
2. Manufacturers and machinists . . .	25,746
3. Occupiers of land, who employ labourers . . . . .	95,339
4. Occupiers of land, who do not employ labourers . . . . .	564,274
5. Agricultural labourers . . . . .	567,441
6. Retailers; and handicraftsmen, masters, and workmen . . . . .	298,838
7. Labourers, not in agriculture . . . . .	89,876
8. Other males, twenty years of age, except servants . . . . .	110,595
9. Servants . . . . .	54,142
<b>Total . . . . .</b>	<b>1,867,765</b>

The labourers and workmen in classes 5, 6, 7, 8, and 9, (deducting the retail traders, and the masters from No. 6) cannot be estimated at more than 900,000; it is manifest, from the above classification, that the whole of the workmen in Ireland, depending for subsistence on employers, must be under one million.

The Commissioners have assumed that occupiers of land, who do not employ labourers, are themselves depending on employers, and by adding this class (No. 4) to the actual labourers, they form their total of 1,131,715 agricultural labourers, in which they have committed an error that falsifies all their subsequent computations. They admit this error impliedly in section 9, by proposing that model farms shall be established in every district, to improve the husbandry of these occupiers, whose lands, they say, do not produce a third of their capacity.

A large number of these occupiers who do not employ labourers, are wholly engaged in cultivating their land; many are residents of towns who hold two or three acres of pasture for their cows; a great number are weavers, and hence there are more of such occupiers in Ulster than in the other provinces; some are carpenters or masons, butchers, fishermen, &c.; and only a few work for hire, who are generally first class labourers, as gardeners, ploughmen, mowers, &c. It is then clear that the Commissioners have exaggerated, by more than half a million, the number of agricultural labourers in Ireland.

Relying on this erroneous computation of the number of labourers, they have assumed that there are 585,000 out of work, during thirty weeks of the year: which cannot be, unless every second workman of the actual number in the country be idle on more than every second day. On the same basis they have founded the assertion that there are five agricultural labourers in Ireland for every two in Great Britain, on the same quantity of land. There were in 1831, 387,167 British agricultural labourers, and thirty-eight acres for each labourer, while in Ireland there were twenty acres, deducting the quantity occupied by small farmers; but the Commissioners have pointed to the fact, that

the British labourers are not sufficient for the husbandry of the country, without the aid of Irishmen. The number of British labourers does not therefore indicate the number required in Ireland.

The following table, compiled from the Census Returns of 1831, shows the totals of agricultural occupiers and labourers then in Ireland, the quantity of land in use, the quantity occupied by persons not employing labourers, the quantity in the hands of employers, and the number of acres for each labourer, in each province:—

The Irish Provinces.	Occupiers of Land who employ Labourers.	Occupiers who do not employ Labourers.	Agricultural Labourers.	Reclaimed Land. Statute Acres.	Waste Mountains and Bogs. Statute Acres.	Reclaimed Land held by Occupiers who do not employ Labourers, allowing to each Occupier Five Acres.	Residue of the Reclaimed Land, held by Employers.	Average number of Acres held by each Employer.	Number of Acres of the Land in column eight for each Agricultural Labourer.	Number of Acres of the Land in column five for each Labourer and each working Occupier.
All Ireland . . . . .	95,339	564,274	567,441	14,603,473	5,340,736	2,821,370	11,782,103	123½	20½	13
Leinster . . . . .	20,789	87,819	162,417	4,119,160	635,424	439,095	3,680,065	177	22½	16½
Ulster . . . . .	29,301	189,087	120,795	3,749,252	1,469,922	945,435	2,803,917	96	23	12
Connaught . . . . .	11,806	167,100	71,882	2,805,109	1,330,022	835,300	1,969,609	167	27	11½
Munster . . . . .	33,443	120,268	212,347	3,929,852	1,905,368	601,340	3,328,512	99	15½	11½

Were the Commissioners correct in assuming that there are in Ireland 1,131,715 actual labourers for hire, there would be for each the number of

ing in column 11, giving an average, for the whole country, of 13 acres of the *reclaimed* land. And by column 10 it is shown that there are in the hands of *employers* 22½ acres of *reclaimed land* for each actual labourer in Leinster, 23 acres in Ulster, 27 in Connaught, 15 2-3 in Munster, and 20 acres on an average of the whole country.

Emigration is, nevertheless, recommended by the Commissioners. But in 1835 a Committee of the House of Commons, on Irish public works, which included all the leading Irish Members, with Mr. O'Connell and several British Members, with Sir Robert Peel, reported that emigration is unnecessary, and would be impolitic—that in 1728, when the population of Ireland had only reached a fourth of its present extent, the labourers were even then excessive for the system of *husbandry*—and that emigration must be impolitic while the empire is under a load of taxation and debt which only a large population can sustain.

The Commissioners, in recommending emigration, have not reflected that pasture tracts would be extended as the labourers would be removed, and that the remaining labourers could not, therefore, have more employment.

Reclaiming waste mountains and bogs is also proposed; but the Commissioners do not adopt the cautious policy of the Parliamentary Committee on Irish public works, by recommending legal and other facilities for enabling landowners to reclaim wastes at their discretion; they recommend that these wastes shall be partitioned, surveyed, and valued, by Commissioners appointed for the purpose, on *the mere motion* of Commissioners of Improvement, and that then main drains and roads shall be formed through them by the Commissioners of public works. There are thus to be three sets of Commissioners for improving wastes, at the pleasure of the Projecting Board, with a Court of Review, to which proprietors may appeal, consisting of the two principal Commissioners of Improvement and two of the Judges.

Mr. Daniel O'Connell, Mr. Spring Rice, Mr. Lynch, and the other Irish and British Members of the Public Works Committee of 1835, thought of no such machinery as this for reclaiming wastes. They, however, proposed means equally efficient, but much less expensive; they proposed that the Board of Works already existing should contract to reclaim available wastes, so that proprietors might be induced to improve by having a public Board to assure them against imposition and extravagance; they also proposed that juries should be empanelled, when necessary, for adjusting rights and valuing interests.

But whence are labourers to be procured for the arbitrary and enlarged operations proposed by the Commissioners? Must the lands already in tillage be converted into pastures? It would appear that the cottier farmers, the working occupiers, are not to be invited from their present vocations. They are to have model farms (section 9) established "in every parish or district" for improving their husbandry. If, then, a large portion of these cottiers are not expected to abandon their present holdings, and reclaim wastes, the regular agricultural labourers should be invited. If the former should go, what will become of the lands they occupy, and the rentals? If the latter should go, how could the rack-rent farmers pay the wages which the remaining labourers would naturally demand? And, finally, when large tracts of wastes (for there are three millions of acres *available*) should be added to the present cultivated territory, increas-

ing every kind of agricultural produce far beyond the local demand, what would become of the rents now derived from land in use?

Were there to be all the emigrating, migrating, and reclaiming, to be projected by a Board *paid for the purpose*, the present rack-rent farmers of Ireland could not pay their rents; and the owners of reclaimed land, who have not large tracts of wastes, would be deprived of so much income, that those under heavy settlements and mortgages would be ruined.

The Commissioners would invert the natural progress of territorial improvement. Instead of cultivating properly that which is now improved a little, they propose to improve that which is now waste, and invite industry to abandon the territory which is under cultivation. Still they report that there is in the reclaimed land a great capacity of production not yet developed.

But the capacity of increased production, in the land already reclaimed, cannot be put into operation, without a reactive Poor Law, to enforce the employment of sufficient labour, and prevent an abuse of the sources of subsistence; and this law Ireland is not to have.

Landlords may still expel the cultivators of the soil with impunity. Large tracts of reclaimed land may still be shut up from industry, without a penalty. And when labourers are cast on the world by the caprice or indolence of a landholder, or the occupancy of more land than he has capital to cultivate, they may starve, or seek for work on waste lands, probably in another province, *which work may be given or withheld at pleasure*; or they must solicit admittance to a depot for emigrants.

Two or three instances of abuses under the English Poor Law are quoted in the Report; but although the causes of the evils pointed to were accessible to the Commissioners, they have not been placed before the public.

In England abuses have been as largely detected in the administering of relief to the *helpless* poor, as in managing the provision for poor labourers: why are the Commissioners alarmed *only* by abuses of the latter? "*Instructed*"—by unexplained occurrences in the parish of Cholesbury, where population has not increased since 1801, when all its poor were supported for less than 36*l.* a year—and by some strange transitions in habits, alleged to have happened in one other not named—they will not recommend that Irish labourers shall be protected against want and injustice by a legal right to employment. But, notwithstanding the abuses in administering the provision for the *helpless* poor, they recommend *that relief* for Ireland. Why? They ought not to be scared by abuses in one case, which do not deter them in the other. And they are surely aware that the abuses of an institution are not sound reasons against its existence; if they were, our Legislature, juries, and corporations, ought to have been abolished rather than reformed.

The Commissioners assume that England sustains the pressure of her Poor Law *only through her strength*, and that Ireland is unfit for such a law in her weakness. They say—"Because extraordinary strength has withstood *poison* it does not follow that *poison* should be prescribed as a remedy for weakness"—forgetting that the *poison* of a Poor Law was administered to England when she was more distracted and feeble than Ireland is now—when she was borrowing capital from the Dutch, and her peasants were roving in marauding bands through each of her counties.

They foresee that a reactive Poor Law, to enforce work for all who want it, would increase the outlay in wages; and they calculate that the present product of the country could not provide for the augmented outlay. But the additional labour would create an additional product, to compensate employers, as the labour of every new settler in America enables the community to provide each year for an increased expenditure in wages, and to realize a profit on the capital so employed.

Instead of a reactive Poor Law, which, by providing work up to the capabilities of the country, would not only diminish pauperism now existing, but check the creation of pauperism, and increase the agricultural produce, *without disturbing and overturning settled interests*—the Commissioners propose to create a fund, by taxation, for helpless paupers, reduced to beggary (for the most part) by the absence of a *reactive* protection for the working classes. In this project they would lay the foundation of a system, which must be rapidly and continually extending until its expense would become insufferable.

If this provision for helpless paupers only be created, England will get the labour of many an Irishman, whose infirm parents or deserted children, must be supported by Irish taxes. But establish in Ireland a provision for the poor, including *a right to employment*, for the working classes, and then the law can justly compel every man to support his immediate kindred, as it does now in England. And for such a law no complicated and expensive machinery is necessary. Rate-payers ought to be empowered by it to elect local bodies for carrying it into effect; and some public department already existing should have a controlling power over these bodies to enforce the rights of the poor, and protect the interests of the community.

## ON THE DIFFERENT THEORIES OF MILDEW.

TO THE EDITOR OF THE YORK CHRONICLE.

SIR,—On no subject have scientific and practical men more disagreed, than on the causes of mildew in corn; some attributing it to animalculæ, some to parasitical plants, and others to the variations of season, frequently placing effects for causes, and altogether offering a series of confused scraps of observation, rather than any digested system, formed upon accurate and practical principles. The diseases of corn have not been so systematically arranged as they should be, and mildew, rust, blight, and smut, have been confounded with each other. Mildew has, however, its peculiar characteristics:—it is a spotted discolouration of the straw,—it is at its commencement, and afterwards black, and scattered in patches over the surface, and although its effects seem principally confined to the straw, yet the moment it is fixed, all communication between the juices and the ear is cut off, and the corn derives no more nutriment. It is admitted on all hands, that whatever may be the immediate cause, the season has much to do in inducing it. One theory is, that if the weather be dry in the months of May and June, the vessels of the stem are small, in consequence of the languid propulsion of the sap from the root, and if the weather then changes to rain, the secretion of sap is increased, until the capillary vessels are incapable of conveying it, which causes a determination of it to the skin, and it being the natural food of some

parasitical plants, they attach themselves to it and produce the disease. This, however, appears somewhat strained, and cannot be easily reconciled with the fact of certain parts of a field being affected, and the rest perfectly free, as was the case with a field which came under my own observation. Particular districts, too, are particularly affected, while those around are comparatively free. One village was so notorious for this disease, as to get the opprobrious character of “Mildew Rollesby.” This is quite opposed to the determination of sap to the surface of the straw by the peculiarity of the season, as producing the disease. Others attribute it to the too vigorous growth of the plants, which would indicate a more sparing application of manure, but in direct opposition to this, we observe small and stunted ears affected, as well as more luxuriant ones. Another theory is, that insects, or plants, are produced on the ground, which climb up the plant and feed on its juices. But if this were the case, the corn would be affected all seasons the same, and seldom if ever escape. A mist or fog, in July, is almost sure to produce the disease, and if it was attributable to animalculæ, all parts of a field would be diseased, which is contrary to facts.

The above are the most fashionable modes of accounting for this disease, but they are very unsatisfactory, and what is worse, they hold out no possibility of eradicating, or even diminishing, its ravages. I am inclined to favour the opinion that it is the same disease which attacks other plants, and from them is communicated to the corn, in the manner afterwards described. The coltsfoot (*cacalia*) may be observed at a later period of the year, to be covered with yellow spots, which afterwards occasionally turn black, and very much resembling the disease in corn, above alluded to. Scientific men, however, tell us that they observe a difference in the microscopic appearance of the fungi; but may not this difference be attributed to the juices on which they feed? This theory is connected with the season in a way altogether simple, and quite different from any of the above. When the straw is wet for a considerable time, the floating seeds of the fungi are attracted to the corn and straw, which it would not be in a dry season. In proof of this, it may be remarked that that peculiar kind of wheat called “downy-chaffed,” is so peculiarly liable to the disease, as to induce the Scotch farmers to discard it; the chaff being more retentive of moisture, is more attractive to the fungi. The coltsfoot, and certain other plants, which seem peculiarly liable to the infection, as wheat is more than oats, act as conductors of the seed; and it is at least worth while for the farmers to clear their land and hedg's of such noxious plants, as a single neglected farm in this respect, may extend the disease for miles, especially in foggy weather. M. M. M.

Thorpefield, April 26, 1836.

THE WEATHER.—Last evening, a self-registering thermometer was laid on the ground in the garden, and this morning the index stood at 23 degrees: that is the *minimum* temperature was 9 degrees below the freezing point! At about 5 in the morning the temperature was 27 degrees; at the same time the atmosphere was bright, with the exception of a few stratus clouds to the northward. A temperature of 9 degrees below the freezing point, at this season of the year must have a very detrimental effect on vegetation.—Epping, April 30.—Standard.



## ISLINGTON CATTLE MARKET.

TO THE EDITOR OF THE MARK LANE EXPRESS.

*London, May 20th, 1836.*

SIR,—We the undersigned, have had the gratification to visit the Islington Market, and unanimously agree that it is the most perfect, commodious, and convenient Market in the kingdom, and which every Grazer who studies his own interest and welfare will support, and we strongly urge and invite them to see the new Market and judge of its merits for themselves, and they must be convinced, as we are, that it is for their benefit that their cattle should be sent there, where they can have every comfort and accommodation which cannot be obtained in any other market.

We cannot bestow sufficient praise on Mr. Perkins for the high spirit he has evinced in the erection of an establishment equally important and advantageous to the agricultural classes, as it is for the improvement of the metropolis, and we heartily wish him every success, and we hope that the whole of the stock sent for the supply of the London Market may very shortly be consigned to the New Market at Islington.

We remain, Sir,

Your obedient servants,

NORFOLK, Earl Marshal,

TAVISTOCK, Marquis of,

LYNEDOCH, Lord,

Mr. COKE, Holkham, Norfolk,

ROSEBERRY, Earl of,

(FROM A CORRESPONDENT.)

## ISLINGTON CATTLE MARKET.

I congratulate my agricultural brethren on the unity of feeling that prevails in our county, relative to this important and praiseworthy undertaking; having been present at a meeting of landowners and graziers, which took place at the Peacock Inn, Boston, on the 18th instant, the Great Fortnight Cattle Market, convened for the purpose of conferring with a deputation from the London Salesmen, who have transferred their business from Smithfield to Islington, in compliance with the wishes of their employers expressed in the declarations of the graziers in Lincolnshire, and other counties, pledging themselves to send their cattle to the Islington Market.

JAMES B. TOPHAM, Esq, having been called to the chair, and the object of the meeting having been stated by the Salesmen who were deputed to attend, it was unanimously resolved, that this meeting are fully determined to support the Islington Cattle Market, and, moreover, that we will not employ any drover who shall presume to deliver any cattle contrary to our directions, or sell any stock entrusted to their care, except in the market to which it is consigned.

Many very judicious remarks were made on the conduct and trickery of the drovers who have been opposed to the New Market. It was suggested and approved by the meeting, that committees be immediately formed at all the principal markets throughout the country to confer with the Islington Market Committee in London, on the most effectual means of supporting the Islington Market.

The feeling that prevailed in this meeting was so truly unanimous, that when a show of hands was solicited in favour of Smithfield Market by a Salesman from London who attended the meeting with three others as the advocates of that market, not a single arm was raised in support of this detestable place, where the property of the graziers of England have been so long sacrificed to the interest and prejudice of a few individuals.

This meeting which was attended by upwards of one hundred of the most influential landowners and graziers in this part of the county of Lincoln, together with the declarations which have already been signed by nearly one thousand landowners and graziers in Lincolnshire,

pledging themselves to support the Islington Market, cannot fail completely to establish the opinion that prevails in this county on this important question.

While writing, I must take leave to put my brother graziers on their guard against reports that have been industriously circulated by certain jobbers (and the salesmen in their employ) transacting considerable business in this and the adjoining counties, prejudicial to the Islington Market. These men may calculate on reaping a golden harvest by endeavouring to keep up a competition between the two markets, they imagine they may have the effect of inducing graziers to sell at less money at home; this feeling will at once account for the extraordinary apostasy of certain individuals who are seeking, while the two parties are contending, to walk off with the bone.

Graziers, forget not the ancient motto, "Vis Fortier Unita."

*Boston, 20th May, 1836.*

The effect of a commutation of title in inducing the ploughing up of poor lands is thus animadverted upon in a little pamphlet upon this subject from the pen of the Rev. R. Jones, Professor of Political Economy at the East India College.

Since 1814, more than four millions of souls, that is, a population greater than that of Sweden and Norway, has been added to the consumers in our home-market; and yet, during that time, there has been a disposition rather to lay land down than to plough it up. The additional produce, gigantic as the addition has been, has been obtained by better, not by more extensive tillage farming. And yet, the one great improvement, by the application of which modern agriculture has added so enormously to its powers, has been adopted on only a very moderate portion of the English soil. That improvement is the alternating with corn, on the tillage-grounds, crops on which cattle are maintained. The progress of such a practice is possible only in countries where there is an increasing demand for butcher's meat, but where such a demand exists, its gradual progress to soils of all descriptions, after it has once become known, may be anticipated with great confidence. Hitherto it has been almost confined to light and dry soils. Perfect draining is the condition on which alone it can be attempted on stiff and wet land. The great expense of drainage has, hitherto, been an effectual obstacle to the general participation of such soils in the benefits of the improved husbandry of the day, and we see the occupiers of them struggling with difficulty to maintain them in cultivation at prices produced by the abundant harvests of their more fortunate neighbours. But the art of draining is, as might be expected, improving: already the operation may be effected in the very best and most effectual manner, on the stiffest soils, for one-third of what it cost a few years ago. The next great conquest of English agriculture will clearly be on such soils. Root crops, and summer and winter soiling, producing, necessarily, more perfect tillage and progressive enrichment, may gradually restore the clays to an equality at least with the lighter lands, if not to their ancient and once vaunted superiority.

**POLISH TURNSPITS.**—Bears are very common in Poland; the peasants catch them when quite young, and teach them to perform all sorts of domestic labours. These animals, possessing great intelligence, and dexterity, particularly with their fore-paws, many inn-keepers have bears who adroitly turn the spits for roasting meat. It is an extraordinary sight to see a stranger who enters one of the Polish kitchens to see a bear seated gravely on his hind-legs, and turning with his fore, an immense spit, by means of a handle artistically constructed.—*Le Caméleon.*

## SECOND REPORT OF THE COMMITTEE ON AGRICULTURAL DISTRESS.

MR. HOWARD called in and examined.

Can you speak of the comparative condition of the farmers now and 20 years ago?—Twenty years ago the farmers were a very flourishing body, they were opulent; they are now dreadfully poor.

Do you think there is much capital yet left in the hands of the farmers?—I believe that were the landlords to call for closing in of the accounts, were all accounts now to close, the farmers of Holderness and Howdenshire are insolvent, taking them as a body.

Speaking of Howdenshire and Holderness, are there any particular expenses attending their cultivation, are the rates heavy?—No; the rates in the East Riding I do not consider to be very heavy; it appears to me they are much higher in the south of England than in Yorkshire.

What are the poor rates in that part generally speaking?—Varying considerably, perhaps about half a crown, judging from those parishes with which I am acquainted; I should say not much above half a crown in the pound.

Is the county rate heavy?—The county rate has very much increased, but it is not a very serious evil.

What is it in the pound?—I mean in the half a crown or 2s 8d to include the county rate.

Is the tithe heavy in that district?—No, very little tithe is paid, it is generally tithe free.

If the tenantry have been in this declining state so long, has there been a corresponding reduction in rent in that district?—I should consider that rents have fallen about 40 per cent.

Since what period?—Since 1816.

If the prices which have been maintained the last year or two should remain, how much more rent should you conceive would have to be reduced?—The poor strong lands could not remain in cultivation rent free.

And the extent of country to which that would apply would be about 50,000 acres?—Yes.

And that land has been in cultivation time immemorial?—It has.

Do you think the richer soil, and yet strong soil of Holderness will bear much rent if the present prices remain?—It will not bear much rent, but certainly it may be kept in cultivation.

Twenty years ago what rent would an acre of the average soil in Holderness bear?—Thirty shillings.

What do you think it is worse at the prices of the two last years if it was let at the price of wheat?—If they are paying 20s they are paying part of the rent out of their capital.

If they did not pay their rent out of their capital what do you think that 30s must now be reduced to if they pay merely according to the value of the produce?—I feel that rather a difficult question to answer.

You say there has been a great scarcity of spring crops, and therefore the value of the spring crops has not made up for the loss upon the wheat crop?—No, the spring crops have borne a pretty good price, but the crop itself has been very deficient, and therefore the farmer has not benefitted much by the price that he has obtained.

In former times, even before the war, used not the wheat crop to be considered the paying crop?—Certainly.

And of late years the farmer has been obliged to compensate himself out of his other crops to pay for the cultivation of wheat?—That has been the case to a certain extent.

Have you made any observation of the changes that have taken place since the year 1814, as to the welfare of the farmer; how was it immediately succeeding the war?—The farmer bore up pretty well till 1816; in 1816 he had more difficulties to contend with; in 1815 he had a considerable reduction of price; and in 1816 the harvest was exceedingly bad, he had a great deficiency of quantity; 1816-17 was a year of scarcity. I think the prices in 1817 rose rather considerably.

Did they remain high during the year 1818? There was a fall in 1818.

When did any great fall take place after the year 1818?—I think in 1820, 1821, and 1822, and in the early part of 1823 prices fell greatly.

Was there a great pressure then upon the farming interest?—Great distress.

Was the price low?—The price was low, and altogether there was very great distress.

Did the lowness of price in your opinion spring from good harvests or from abundant crops?—I think not; if it had done so the farmers would not have felt it so much; the quantity grown would have compensated for the decrease of price.

Do you generally find that the farmers, as a body, reap more benefit from an abundant and good harvest with a comparatively low price, than they do from a higher price attending a scarce crop?—Decidedly.

Do they consider a good harvest a blessing?—A good harvest is a great blessing.

Did any material change take place after the early part of 1823?—In 1822 it appeared to me that I could not go on farming, that ruin must be the consequence, and I was losing very seriously; at Lady-day, 1823, I gave up the greater part of my farming concerns, but the prices, though very low in the spring of 1823, rose afterwards during the year 1833.

There is still another article which agriculturists produce, namely, meat, which is selling higher than wheat; to what do you attribute that?—The great scarcity of mutton; the flocks being so much reduced of course made a greater demand for beef, and I imagine that it is from that circumstance alone. There is another thing too which must operate; as the distress of the farmer and the difficulty of letting farms increased, and as rents in consequence decreased, landlords began to indulge their tenants very much by allowing them to plough up grass land. We have much less old grass land in the East Riding of Yorkshire than we had during the period of prosperity; that must tend to increase the price of cattle.

Will not that also have the effect of increasing the breadth of wheat sown?—Yes, no doubt it has.

Has wheat been sown to a much greater extent than it used to be within the last five or six years?—The autumn of 1834 was peculiarly dry, and there was great difficulty in getting wheat sown; I found that many farmers, not only in the East Riding but in Yorkshire generally and in Lincolnshire, and in other parts of the country, had been partly compelled to abandon the sowing of wheat from the difficulty of getting a season in which it would vegetate; they were the more ready to do so because wheat was then selling at about 40s, and spring crops were selling at much better prices in proportion, and therefore they allowed their strong land fallows to stand over for beans, for barley, or for oats, and consequently less wheat was sown in the autumn of 1834.

Would the fact of a considerable number of farms having been left waste for the last three or four years have diminished the quantity of wheat sent to market?—Certainly; then, again, those farmers that were compelled to sow spring corn in 1835, instead of sowing wheat in the autumn of 1834, finding that

those crops had been more profitable to them than wheat crops would have been, have gone on this year to do the same to a very great extent, and others have followed their example, so that the breadth of wheat sown in the autumn of 1835 has been very much diminished.

Do you think that the diminution in the sowing of wheat has at all tended to raise the price within the last five or six weeks?—I believe wheat is not just now rising; it is a fact that must be generally known, and the merchants and others must be aware that a considerable change will take place, that there must be a deficiency of wheat in proportion to the spring corn; spring corn has been so much more sown, and wheat so much less sown, that their present ratio of price must alter.

Speaking practically, do you find any inconveniences from the country bankers not issuing so largely as they used to do?—I used to have good personal credit with my bankers, I used not to be asked for any security, nor feel it necessary to look at my banker's book to see how I was going on, but I should very much scruple now to overdraw upon my bankers.

Do you think the tenants generally find the same thing with the bankers?—Yes, the tenants have no credit.

Can they get security to enable them to get accommodation from the bankers?—No, it is impossible.

Why?—They have lost confidence in the country: the bankers know that they are poor, and they have no longer confidence in them.

Is the man who would naturally be the security of a farmer a neighbouring farmer?—Yes.

Then you think that all the farmers are so much distressed that one farmer could not be security for another?—A farmer's personal security will no longer be accepted; it was the habit formerly of the bankers to advance money to any man, whom they knew to be a prudent man, if he brought the security of such a man as himself, but ten such securities now would not induce the banker to advance his money.

Is that because he thinks farming a ruinous trade?—Because he thinks farming a ruinous trade. Formerly he depended upon the prudence of a tenant, but he can no longer place confidence in his prudence, because he knows that he carries on a business by which he must lose money.

You have spoken of the condition of the tenants; what in your opinion is the condition of the landlords at the present time?—The landlords whom I principally know are, I conceive, in a much worse condition than their tenants.

Will you state why?—Because many of them are compelled, by their situation in life to a certain expenditure; many of them have mortgaged estates, or estates otherwise encumbered; all the incumbrances remain the same. A reduction may have taken place upon mortgages, from 5 per cent. to 4 per cent.; but the rents having decreased 40 per cent. in many instances I could quote 50 per cent. upon the strong cold lands, the landlords have suffered more than the tenants.

Do you think that the landlord himself has not been living, in a certain degree, out of the capital of his tenant?—Yes, he has so; but with a reduction in his rent of from 40 to 50 per cent, that has not enabled him to meet his unavoidable expenses.

Then you think the comparative condition of the landlord is worse than that of the tenant?—The comparative condition of the poorer landlord is worse than that of the tenant. I know many instances of freeholders, who were men that possessed property, to the amount of 8,000*l* or 10,000*l*, who are now ut-

terly destitute, who have not a shilling in the world.

Can you give an instance of two men, who should happen to have invested money, the one in the funds, and the other in land, about 20 years ago?—A gentleman with whom I am very well acquainted, and whose estate has been in my management, since he purchased it, about the year 1809, sold out of the funds to purchase that estate. The purchase was about 50,000*l*. The value of the estate has been sunk altogether by the difference that it would have made to him had he continued his money in the funds up to the present time.

Do you mean then to say, that if it had remained in the funds to this time, his 50,000*l* would have become 100,000*l*?—I know what the rental has been; I know what the expenses of the improvement of that estate have been; and calculating what he would have received from the funds. I find that it makes the difference of the cost of the estate.

If he had remained a fundholder, he would have been 50,000*l* richer at the present time?—Exactly so.

What do you conceive to be the condition of the labourers now?—I do not think that the labourers are distressed at all.

Are they well employed?—They were distressed for several years prior to 1824, and then emigration became with us so general, and was carried on to so great an extent, and took so many labourers out of the market, that they have pretty good employment.

Are the labourers, generally speaking, in the East Riding, well employed, and taking the price of produce, well paid?—Taking the price of produce, well paid; better paid than at any former period.

What is the rate of wages they are receiving, generally speaking, in the East Riding of Yorkshire?—Two shillings a day, throughout the year, may be considered about the price of wages, in the East Riding of Yorkshire.

What is the state of the tradesmen in your neighbourhood?—I reside not very far from York, and I am most acquainted with the tradesmen in York; they complain very heavily. On inquiring as to an agricultural petition which was recently sent up from the Yorkshire associations to the House of Commons, I found that the shopkeepers in York were much more anxious to sign that petition to parliament than the farmers were. They have learnt that they are entirely dependent upon the landed interest, and that if the landlords have not money, and if the tenants have not money, they can sell no goods.

Is not that rather a change in the opinion of the tradesmen?—Decidedly so.

Since when have they changed their opinions?—I recollect that when corn was extremely high in 1812, and about that period the shopkeepers used to complain heavily of it, and fancied that it was very much to their detriment; they are now convinced that without corn can be sold at a remunerating price, they cannot carry on business to advantage.

Then, in fact, you yourself think they are as much interested in the relative state of prices as the farmer, the labourer and the landlord?—I am confident that they are.

Do you believe that it would be possible for the county of York to grow wheat to advantage at 5*s* 6*d* per bushel, tithes free?—Certainly not.

If the whole of the poor rate, county rate, highway rate, and every other rate, were removed from the county of York, do you think that they could grow wheat at 5*s* 6*d* or 5*s* 9*d* per bushel?—Certainly not.

Do you think that 5*s* per bushel is a fair estimate to make for a series of years?—I should hope not.

Do you think that wheat will remain at 5s per bushel, or that it will not increase in price?—Wheat will increase in price, I believe, from the small quantity sown, and from the impossibility of cultivating it at that price, so that were it to continue at that price a little longer, farmers would not continue to cultivate, and that therefore the decreased quantity grown must increase its price.

Is it a fact, within your knowledge, that there has been a great deal of emigration from the East Riding of Yorkshire?—A great deal, and a great deal from Melbourn. Where I reside, the parish is Thornton.

Will you take any farm, within your own knowledge, in the East Riding of Yorkshire, and state whether, provided those farms had not been subdivided, the same number of labourers would be employed upon those farms now, as there were when prices were more remunerating?—Certainly not.

From what class has the emigration principally taken place?—I think that emigration has taken place principally from the direct labouring class in point of number; many of the farmers have emigrated, but the numbers are the labourers.

If emigration takes place to a manufacturing district, the whole family do not emigrate, do they?—No; several of the younger people get into manufacturing districts, but the father and mother and the younger children remain in the country.

Then in fact an increasing number of children come into the account of the population returns?—Yes.

Within the last fifteen years there has been a greatly improved cultivation of the Wolds, which you say constitute one-third part of the East Riding in consequence of the introduction of bow husbandry?—Yes.

Would that have very much increased the labouring class in the East Riding?—The Wolds are better cultivated than they were; there has been an increased demand for labour on the Wolds.

Has there been any increase of the allotment system in the East Riding?—Where gentlemen reside upon their estates the allotment system has been considerably increased.

Would not that rather tend to increase the number of labourers?—I do not exactly see that; it renders their situation more comfortable.

You have stated that the poor soils in a great portion of the East Riding had nearly ceased to be cultivated, are there any farms untenanted?—Yes.

What is the state of the buildings upon those farms?—They are going to decay.

Are there any poor rates paid?—Yes.

From what source?—The landlord generally pays the poor rates, even though he does not receive the rents.

What is the course of cropping generally in Howdenshire?—That land has been under cultivation time immemorial, but they are not good farmers, they know very little of sowing grass seeds, and the drill is not much in use; two crops and three crops to a fallow; upon the better soils three crops; fallow and wheat and oats sometimes, which is not good husbandry, or fallow, wheat, beans, and oats, which is rather better husbandry.

You spoke of there being much less grass land in the East Riding than formerly; when was that grass land ploughed up?—That grass land has been going progressively until the last few years, when I think the landlords have been more tenacious of the little remains of grass land.

Then you consider the grass land to have been very improvidently ploughed up?—Yes.

Do not you think that in some measure accounts

for the distress of the farmers in that district from their want of knowledge in the cultivation of the soil and from their ploughing up land which ought not to have been ploughed up?—I think that farming is better understood at this time than it has been at any former period; but it is extremely difficult for men who are deficient in capital to avail themselves of an increase of knowledge, because better farming requires increased capital; they know how to farm now better than they are able to do.

Was that part of the country ever tenanted by men of large capital?—Yes, they were a very opulent body.

Are you speaking of Holderness or Howdenshire?—Howdenshire.

Holderness is a better district, and there are better farmers there?—They are better farmers there, and they were a still more opulent body.

Are they now?—Yes, I think they are now, at least they are a less distressed body.

Do you know any district in England where there is better cultivation carried on than in the East Riding?—Yes, along the banks of the Till, in Northumberland, the cultivation is very decidedly better.

Do you know any district south of the East Riding of Yorkshire that is better cultivated?—No, I think we are equal to other parts.

You have stated that the farmers in Howdenshire and Holderness are nearly insolvent?—Taking them as a body, I believe them to be insolvent.

And that the distress of the farmers has been considerable?—Yes.

Will you state what you consider would be the means of relieving the farmer at the present time?—I think that we have obtained some little relief from the change in the poor law system; I think that is working very favourably with us. We should have obtained more relief, and greatest relief by the alteration of the highway laws; the highway laws are very oppressive in the East Riding of Yorkshire, particularly in this very district of Holderness, and what I have called Howdenshire, explaining by that that I meant that class of country which is exactly similar, and which adjoins it.

Is there nothing beyond the highway rate and the poor law that you would look to for relief?—Latterly we have looked principally for relief by some change in the currency.

That you think would be the means of relieving the farmer considerably?—If money was of less value wheat would be of more value.

Have you any other remedy to point out to the committee that would be of use?—I am not aware of anything else.

A change of the currency would be in your opinion the principal means of remedying the distress?—I fancy that is the great means.

Do you think that the graziers have suffered from the low price of tallow of late years?—I have not stated that the grazier has been an extensive sufferer.

Has the price of tallow of late years been remunerating to the tallow growers?—It is but a small article; I am quite aware that it must make a difference, but it is not very considerable in the value of a beast.

Have you been at all conversant with the killing of cattle?—I cannot say that I have; I think I am a pretty good judge of the beast as we sell it, but not of the tallow that the beast contains.

Have the subdivision of farms of which you have spoken been carried to any great extent?—It has, to a considerable extent.

What was the size of the farms generally speaking

before they were subdivided?—I think I could average them at about 300*l.* a-year, about 300 acres. I am speaking of the average of the East Riding.

What has been the division of those farms?—Those farms are not now near so large; I think the number of farms has been increased by one-third in the lower part of the East Riding.

Has any alteration in the rent taken place in consequence of the subdivision, or have the farms been let at about the same rent?—The rents have been reduced.

What has been the case as to the buildings, has there been any difficulty in erecting new buildings upon the subdivision?—The buildings have been increased consequent upon the subdivision.

At whose expense has that been done?—The landlord's.

Then that has formed another heavy pressure upon the landlords!—Just so.

You have stated that a considerable amount of land has gone out of cultivation in Howdenshire and Holderness, will you describe, particularly where those districts of land are, the parishes for example?—Land of that description has gone out of cultivation in Melbourne, and I could name many other places, but I do not wish to expose particular estates.

Has the land that has gone out of cultivation consisted of whole farms or portions of farms?—Of whole farms, with the exception of small parts of those farms.

Has the land that has so gone out of cultivation been ever since in a state of waste?—Yes.

**POLISH AGRICULTURE.**—WARSAW, April 29.—The Council of Administration of the kingdom of Poland, considering that, in consequence of the fertility of last year, and the want of a foreign market for corn, the price has fallen so low that it does not repay the expense of production, has at the instance of the Director General of the Committee of Finance, and in order to relieve agriculture, issued an ordinance, that the Polish Bank shall advance money to the inhabitants of the country on wheat and rye, to be deposited in the magazines under its lock, and in other suitable repositories, which must be well secured and insured against fire. Such advances may be made to the amount of 3,000,000 florins; but should this sum not prove sufficient, the bank is authorized to apply to have it increased. The time for which the advances are made is fixed at three months, but the bank may prolong the term if it thinks it necessary, and circumstances allow.—*Dutch paper.*

A trial took place in the Court of Exchequer, during the last term, of some interest to the breeders of sheep in this neighbourhood. Mr. Rogers, a sheep-dealer, purchased at Weyhill Fair, about 2000 sheep of different farmers, paying for them in cheques, which were dishonoured. Mr. C. Blake, under the advice of his solicitor, followed those sold by him, and found them on Rogers's farm, in Hertfordshire, in the possession of the sheriff, under an execution at the suit of the father of Rogers. Mr. Blake gave the sheriff, who had sold them, notice that they were his property, and that he should bring an action against him unless the produce was paid to him. The sheriff refused, and an action was brought by Mr. Blake, who proved that Rogers had overdrawn his banker's account upwards of 600*l.*; that he had bought many other sheep; that some persons had followed theirs, and seized them; and that some of them were put into a hay-loft in Smithfield.—The jury gave a verdict in favour of Mr. Blake for 118*l.*, the amount at which he sold his sheep, being 43*l.* more than they produced at the sheriff's sale.

## CULTIVATION OF TURNIPS.

TO THE EDITOR OF THE BELFAST NEWS-LETTER.

SIR,—As the season has now arrived for sowing turnips, a species of crop whose cultivation has been given up by many farmers as unprofitable, chiefly from the proper mode of cultivating that valuable root being imperfectly known, I beg permission through your valuable journal to offer a few directions on the subject, hoping that they may not prove uninteresting to some.

The soils best suited to the turnip are those of the lighter class. The proper place in the rotation for the turnip, is both to precede and succeed a white crop, and the land should be ploughed by a deep furrow in autumn, after the corn crop has been removed. Then in spring, when the grain crops are sown, and the potatoes planted, the farther preparation of the turnip land should be resumed. The first ploughing should be across, and the ground left to dry for a few days, then harrowed by repeated double turns of the harrow in various directions, for the purpose of pulverizing the ground, and disengaging the weeds; and the roller should be also employed where necessary. After this process, all the weeds which are dragged to the surface, should be carefully gathered by the hand, and carried off the ground. These should be mixed with quick lime, and formed into a compost, which is preferable to burning them on the ground. At the same time, all the land-fast and loose stones should be removed. Land in general requires at least other two ploughings, traversing each other, before it can arrive at a proper pliable state to be formed into drills. The land must then be formed into single bout drills. They are not so eye-sweet as when formed by a double bout, but they answer the purpose equally as well, as they have shortly to be levelled by the subsequent operations, and they require only the one-half labour. The width of these drills may be 27 inches from centre to centre. This width is necessary to allow the intervals to be tilled by the horse-hoe, and to admit of a sufficient circulation of air between the rows. The drills being formed, the dung is to be led forward, and the horse directed along the interval of a drill, each wheel of the cart will bring in the interval adjoining, as the cart moves along. The dung is to be pulled out into little heaps, sufficient to manure three drills. Four persons should be attending the carts, one going before and dividing the dung lying in the centre drill between it and each of the adjoining ones, while the other three spread the dung regularly along the hollows. The dung being spread, should be immediately covered by the plough passing down the centre of each drill. As liberal a quantity of manure as can be afforded should always be applied to the turnip crop—12 or 14 tons of farm-yard dung to the Cunningham acre is a pretty fair allowance. Street dung, sea-weed, and ashes, are all well adapted to the culture of turnips; their fertilizing effects may, perhaps, not be so permanent as farm-yard dung, where there is so much excrementitious matter, but very abundant crops are often produced by their instrumentality. Bone manure has an almost magic effect in raising turnips. In Berwickshire, I have often witnessed the experiment tried with farm-yard and bone manure, every four alternate rows throughout the field, applying 14 tons farm-yard dung, and only 32 bushels bone manure, to the acre; and I never witnessed the farm-yard dung produce such an abundant crop, either in tops or bulbs;

but I must add, the succeeding crop of barley was in general more productive after the farm-yard manure. Bone-dust may be applied in two ways, either sown with the hand in the hollow of the drills, and covered the same as dung, or sown at the same time with the turnip seeds, by means of an apparatus attached for the purpose to the turnip sowing machine. When it is to be sown by the hand, the drills should not be formed so deep as for dung, but they require to be covered the same depth as when the latter is applied. The quantity of seeds sown to the Cunningham acre may be 2½ or 3lbs. The several operations of forming the drills, spreading the dung, covering it by the plough, and sowing the seeds, should be carried on in close succession, and executed with the greatest possible speed. The dung should be immediately covered, to prevent withering and loss by evaporation; and the seeds should be sown while the earth is newly turned up and moist, which promotes a more vigorous and early vegetation of the seeds. From the middle of May to the latter end of June is the period of sowing. When sown earlier they are apt to run to seed before winter, by which the root is in a great measure exhausted of its nutritive juices, and if sown later, the turnips seldom attain a proper size. The Swedish should be the first sown, for they are a later ripening plant, and require a larger quantity of manure, but they are by far the most nutritious of their species. The next in the order of sowing is the Yellow Aberdeen—then Dabs-hybrid—and lastly, the Globe, Norfolk, and Tankard turnips—of which the most valued is the White Globe. Of the three last mentioned kinds, there are both white, green, and red—the white are more palatable to animals, and more highly esteemed as food. The subsequent operations, with regard to the culture of the turnip, are the following:—As soon as the plants have assumed the rough leaf, that is generally when they are about 2½ inches in height, the first horse hoeing should be performed, which is done by a small one-horse plough going up and down the interval of each drill, and there cutting off a small slice of earth as close as they can go without injuring the plants. Immediately succeeding this operation, the hand-hoers remove the weeds and superfluous plants into the intervals, where they soon die. The plants to be preserved are left standing singly in the rows at a distance from each other of from 9 to 12 inches. The Swedish should be left closer than any of the other kinds—the bulb seldom attains the same size. Swedish 9 inches—Yellow Aberdeen 10—Dabs-hybrid 11—and all the other kinds 12, generally speaking, but the width may be either more or less, according to the high or low condition of the soil.

In the course of twelve or fourteen days after this process, the horse-hoe generally passes a second time along the intervals, cutting up all the weeds that may be again springing up, immediately succeeded by the hand-hoers, who carefully hoe round about the plant, cutting up all the weeds to which the plough had not access, and singling any of the plants that had been omitted in the first hoeing. It is often necessary to give them another horse-hoeing; but where this cannot be conveniently accomplished, the process may be performed by the hand-hoers. In 12 or 14 days after the last hoeing, if the land be naturally wet, the double mould-board plough should be made to pass along the intervals once, or the single mould-board twice, to give free egress to the sur-

face water, and keep the turnips dry during wet weather, in autumn or winter. This finishes the culture of the turnip, which will grow rapidly without further care. If the foregoing directions be punctually attended to there is little danger of realizing a good crop, and if judiciously consumed will amply remunerate the grower.—May 16.

**DRAW MOSS.**—Some pastures are more grassy than others, and it has been remarked in the lower parts of Dumfries-shire that the stocks have thriven best where heather abounds, and is burnt, as arable land is ploughed, upon a system of rotation. The nutritive properties of draw moss have long been known to breeders and others, and the time has been when Airs Moss was as celebrated for wintering hogs as it was in the days of the Covenanters. The prices charged originally were a half under the expense of other grounds; but they have since risen, and although the locality is still a favourite one, it is no longer resorted to on the score of economy. But to some it may be necessary to explain that draw moss is a species of ground favourable to the growth of a plant, the flower of which resembles cotton, and which Graham in his beautiful poem "the Sabbath" calls the "canna of the wild." In January and February the sheep apply their teeth to this plant, pull it slowly up by the root, and feed on the lower part to the extent of three or four inches. And the nourishment they extract from it is so considerable that if draw moss districts were more common, and at all times accessible, they would serve the flocks in good stead during the bleakest periods of the year. In Dumfries-shire the *canna* is often found on levels at one time usurped by the sea, while in many parts of Galloway it oftener appears on the tops of hills—a circumstance which operated much against the flocks during the present season, from the impossibility of locating them in such dangerous spots during the prevalence of storm and drift.—*Dumfries Courier*.

**A HOG MARKET.**—The hogs were most ingeniously kept together, and prevented from blending with passing herds by being arranged in a circle, of which their tails formed the circumference, while their heads were ranged together, gazing upon a single fettered hog, probably the most unruly of the herd, who lay most uncomfortably, as an example, in the centre. They gazed at their persecuted brother with more pitying sympathy in their countenances than I believed the swinish physiognomy to be susceptible of; while ever and anon the half-savage swine-herds, rudely dressed in garments of skin, notified by energetic blows from their long poles to any delinquent subject who was disposed to back out, that the experiment might not be innocent. Each swinish circle was surrounded by its group of cheapeners, malevolent and slanderous individuals, who were not even superior to the calumny of a pig; pronouncing, in their anxiety to drive a bargain injurious to the swine-herd and advantageous to themselves, a most apoplectic-looking pig to be poor and starveling. At length a round-bellied citizen having concluded a bargain, which he pronounced most onerous, proceeded to take possession of the animal which he had maligned. The swineherd separated the purchased animal from his brethren very ingeniously, by taking its two hind-legs in his hand, then turning his back upon it and walking off as with a wheelbarrow—the hog being obliged to move its fore-legs out of respect for its nose. I had often seen a hog contended with, but never mastered before. The Spaniards, indeed, have a wonderful sagacity about animals, which they manage with infinite address.—*Spain Revisited*.

Oak bark is selling in Hereford at from 5*l* to 5*l* 10*s* per ton. The season is peculiarly backward, being at least a month later than usual.

## CUSTOMS BETWEEN LANDLORD & TENANT, AND THE INCOMING AND OUTGOING TENANT.

(FROM KENNEDY AND GRAINGER'S CUSTOMS OF COUNTIES.)

### BUCKINGHAMSHIRE.

A tenant in this county is, generally speaking, scarcely under any restriction; he is allowed to carry hay and straw off the farm, and to crop the land as he pleases: in some cases, indeed, he is restricted to two crops and a fallow, but this is of rare occurrence, the system most frequently pursued being of a contrary description.

An outgoing tenant can sow the spring corn until Lady-day, it being entirely at his option to allow the incomer to enter upon the land, in order to plough and sow it himself. The former is entitled to be paid for his seeds on the ground, for the carting of manure, and for any ploughing done by him, of which his successor reaps the whole of the benefit. If the incomer does not agree to the valuation of the wheat and spring corn, sown before Lady-day, he having the option of either taking it or not, the outgoing may cut and take the crop himself, on paying rent and taxes for the land it stands upon until the following Michaelmas, and convey it away wherever he pleases. This custom frequently compels an incoming tenant, in his own defence, as it were, to purchase a crop for the sake of the dung; and thus a tenant entering upon such a farm has to pay a large sum of money. He is not however bound by custom to pay for more than the seeds, the spring and winter ploughings solely for his benefit, and any turnip land fed off, which he pays for as fallow: nor would he, probably, do more than this, if he could put up with the inconvenience of losing the straw, he having left a farm under the same custom; otherwise he must risk the value of his predecessor's crop, and expend great part of his money at the outset of his undertaking. The incoming tenant, however, has the benefit of all the dung that is left in the yards, or upon the farm, free of expense.

MODE OF CULTIVATION, IMPLEMENTS, &c.—Turnip husbandry is chiefly carried on upon the hills, and is confined to a small portion of the country. Chalk is very commonly laid out during the winter as a manure for the turnips, which, from the effects of the weather, runs like lime, and is found, when properly managed, to last as a manure for many years.

The rotation of crops upon the hills is—first, turnips; second, barley; third, seeds; fourth, wheat; and often, fifth, oats; but, on the low grounds, wheat and beans are the chief productions. This mode of cultivation is, in some places, closely followed for a long time, without making a fallow, and on ground so managed oats are seldom grown, they being found to impoverish the land more than a crop of wheat.

There is but little draining practised in this county, though some parts would be greatly improved by it, and what is done is chiefly at the expense of the landlords.

Wheat and other kinds of grain are here usually sown by hand, with the exception of beans, which are set by the dibble; this, however, is rather a tedious process, the man employed, dibbling with one hand, and setting with the other, as if he was planting cabbages: this method is, it seems, adopted on account of children being careless in planting unless they are strictly watched. Neither the drill nor the threshing machine are much used in this county. The outbuildings, which are generally of brick, and thatched, are kept in repair by the landlords.

## TRICKS PRACTISED FOR LIBERATING BONDED CORN.

Mr. Sturge, of Birmingham and Gloucester, gave the following statement before the Committee of the House of Commons on the State of Agriculture:—

You have talked of fraud, or of something of that nature, operating on the averages; will you state whether you are acquainted with any instances of that sort?—Personally, I can only state one, though I had no interest in it; yet I think it would be harsh to term it a fraud; it has been (I have understood from others) practised in the case of oats, and I think it has also in the articles of beans and peas. The instance to which I allude was in wheat. Some years ago we received an order from a very respectable house at a distance to purchase some English wheat, in June or July; it was, I think, stated to be for a friend or friends of the parties who wrote, and I have no doubt this was the case. The corn was afterwards resold at a loss, the weather becoming fine shortly after, and the new wheat came upon the market rapidly; but I believe if the harvest had been delayed only a fortnight, the speculation might have succeeded. I did not know that there was any unusual object in having the corn bought till months after, when I had reason to conclude it was intended to *run up the averages to liberate Bonded Wheat*, and though it did not succeed, I think the Committee will see that it will be impossible to guard against such an operation under the present system of Corn Laws, when neither the buyer nor seller knows the object of it. If it is carried on at the time of the year when the markets are shortly supplied, the tendency is to run up the price, it may be even 10s. or 12s. a quarter, and when they got up to that, the re-sale would have secured to parties interested a profit, at the same time liberating any *bonded* corn they might hold at a lower duty. I mention it as an instance in which the present corn laws afford a temptation that to some parties under certain circumstances is almost irresistible.

CHAIRMAN.—In what market did this take place?—Our means of buying were only in some of the midland districts; perhaps we bought by agents in three or four counties, say in Warwickshire, Worcestershire, Shropshire, and Staffordshire.

In all the markets with which you were engaged?—Where we could buy wheat within certain limits as to time.

Would it not be necessary that a similar operation should take place in all the different corn markets in England to effect a rise in the price?—Yes, in several districts it would; it is only under particular circumstances that such an operation can be successfully acted upon.

Mr. CAYLEY.—They were speculating for a reduction of the high duty?—Yes.

Were they speculating for the lowest fall in the duty?—The lowest they could obtain. Nothing ever passed between us on the subject, only from accidentally ascertaining afterwards who the principals were, led me to that conclusion as to their object.

There might be an opportunity for that state of things without repealing the corn laws?—Yes; and without releasing the wheat at the lowest duty; a difference between 7s. or 8s. and 90s. would be a very great temptation.

THE TIMBER DUTIES.

(FROM THE HERALD.)

A great and increased interest has been excited during the past week or ten days, amongst the leading members of the timber trade of the Port of London, and the different outports, particularly that portion who are deeply engaged in the Canadian wood trade, by the more active demonstrations that have been evinced in the Board of Trade to carry out their plan for levying the duties on deals by their cubical contents, with a graduated scale of duties varying with every two feet in length. Some months ago we stated that many practical men had confirmed the surveying officers of the Customs as to the impracticability of levying the duties on deals by their cubical contents, and we believe that not one of our dock-yards, particularly those of the outports, would afford space for the necessary assorting of mixed cargoes of timber. The same objections still prevail; but Mr. Hume, who has some scheme in his figurative fancy, of having barges built with rooms arranged to take in separately the graduated lengths of deals, and then to ascertain their cubical contents by gauging the contents of the hold of the barge, after the manner of gauging wines, &c., has had several of his clerks down at the Commercial and East Country Docks during the past week, measuring the different lengths of deals, it is supposed with a view to the establishment of his notable principles, and the support of the theories of the patriotic President of the Board of Trade. The effect of this mode of taking the duties, to say nothing of the hindrance of business, would be to give a *complete monopoly* in the deal trade to Sweden and Norway only, who never will take anything in proportion from us in return; and in the same ratio it will drive our lumber ships out of employment. It will deprive Prussian and Russian timber of the advantage of this market; and we understand the Prussian Minister has strongly remonstrated against the unfairness of the principle. Russia does not care about it, as she can consume her own timber, and has rather cavalierly declined the intended clap-trap overtures of the President of the Board of Trade. We now subjoin the following statement, because it places the question in a clear point of view, and will be interesting to a numerous portion of our commercial and colonial readers:—

“The Committee of the House of Commons on the timber duties have recommended a reduction of duty on foreign timber not exceeding 15s. per load. This is bad enough for the colonist and British ship owner; but, it is feared, that, in endeavouring to resist that alteration, we are too much losing sight of a more injurious change still, which is recommended by the same Committee—namely, an alteration in the scale of sizes for the duty on deals, nearly approaching to a system of taking the duty by their cubical contents.

“Of late years it has been the Policy of our Government to keep open all sources of supply in the article of deals; and it has worked well, in giving the consumer the choice of all kinds and sizes of deals. These sources may be classed into three—namely, Norway and Sweden, Prussia and Russia, and the Colonies. The first source possessing chiefly

the shorter and smaller timber, and having the advantage over the second of a shorter voyage, and, therefore, lower freights, it is evident that a duty per hundred of deals, approaching nearly to the timber duty on their cubical contents, would give to Norway and Sweden the monopoly of the supply of deals, except in those few cases when very long and broad deals were required for particular purposes. The existing system of a wide scale of sizes for duty has prevented this monopoly, and has enabled Prussia and Russia and the Colonies to compete fairly with Norway and Sweden, to the manifest advantage of the consumer. Those who argue for the proposed change must abandon the favourite maxim—“Go to the nearest and cheapest market;” for, with our enormous consumption, to cut off Prussia and Russia from the supply, will be to raise the near and cheap market to the level of the distant and dearer one.

Again, it is surely the policy of the Government to keep up the competition of supply from the Colonies. The foreign sources may be cut off, as they have been before; to say nothing of the interest which the British and Irish ship-owner has in the Colonial trade.

“One hundred and twenty foreign deals of 12 + 3 + 9, contain five loads and 20 feet, and pay at present a duty of 19l.

“Foreign timber pays 55s. per load; and even if the duty on timber were not altered, and the proposed plan of taking the duty on deals adopted, five loads and 20 feet at 55s. would be 14l. 17s.

“How fatal, then, to the deal trade of the Colonies, of Prussia, and Russia, would be the double alteration of a reduction on timber, and an approach to cubical contents in taking the duty on deals! The number of kinds of deals, the variety of lengths, breadths, and thicknesses, and the calculations necessary to understand the operation of any scale of duties, are such, that it is not too much to say that very few of the Members of the Timber Duty Committee knew what they were doing when they recommended that the duty on deals should be taken by nearly their cubical contents.

“120 Foreign deals of 12 + 3 + 9 is			
5 loads and 20 feet, which, at.....	55s is	£14 17	} Present duty, 2l
	50s ..	13 10	
	45s ..	12 3	
	40s ..	10 16	

“120 Colonial ditto ditto ditto 10s — 2 14 } Present duty, 2l

“Therefore, at 55s. and 10s., the present duties on timber, and a new scale of sizes approaching to cubical contents, the difference in favour of foreign deals, and against colonial, would be 4l. 17s. per 120 pieces.

“At 50s. and 10s. ....	£6 4
45s....10s. ....	7 11
40s....10s. as proposed.	8 18

“As between Norway and Sweden on the one hand, and Prussia and Russia on the other, the shorter and narrower timber, and the lower freights of the former, would give them an advantage of 4l to 5l per 120 pieces, but, as before said, without the gain to England of a fraction of this advantage.

“Those ports of the United Kingdom which have limited dock-room, and were deals are often sold afloat or sent inland without being landed, have cause to condemn the proposed change; it will oblige the importers at all these to land and bond their deals. The restriction on trade, and delay, expense, and inconvenience attending it, are large disadvantages in the plan. In London, Hull, Gloucester, &c., the expense of landing would amount to a heavy charge on the value of the deals.



“ Nothing more seems necessary to recommend this subject to the earnest and immediate attention of all who are interested in it. In Ireland the duties on deals are different from those in England; but the Irish merchant and ship-owner, who are losing by the employment of steam-boats between England and Ireland the importation from abroad of all valuable goods, are, nevertheless, deeply interested; and it becomes them, through their Representatives, and by remonstrances to the Board of Trade, to bestir themselves, lest their rising efforts should now be crushed; and, finally, it is the part of the consumer, the timber merchant, the Colonial, Russian, and Prussian importer, and the British ship-owner, to strain every nerve to prevent so fatal a change.

A SPORTING CHARACTER.—The late celebrated John Beardsworth, of Birmingham, commenced the world as a driver (not an owner) of a hackney coach. A story, and a true one is told of him, to the effect that, on one occasion there being a grand ball in the town, Beardsworth had to drive an heiress to it. The lady was young and beautiful, and Jack was smitten! He went home, dressed, paid for admission to the ball, danced a great part of the night with his fair, (*fare!*) and gallantly handed her out to the coach, mounted the box and drove her to her home! He managed to run away with her soon after, and her money was the foundation of his future fortune. Beardsworth became proprietor of the largest repository in the British empire for the sale of horses and carriages. His house (built on the same ground with the repository) was all that money could make it—it was indeed a curiosity. The hall was lined with splendid mirrors—the carpets were of the richest Turkey—every chair was of a different pattern, and each as sumptuous as imagination could conceive. The chimney pieces were exquisite, and the tables of the richest and rarest woods—one centre table cost 1,500*l.*, and was made of every wood indigenous to America. It was part of his business to keep up a famous stock of wine, for truth to say, what bargains were unfinished in the stable or in the repository were finished with *spirit*, over a bottle of wine in the dining room. He used to say that his wine sold off all his hack horses and craziest carriages, and the best of the joke was, that people who had filled themselves at his table with the fat of the land, and the best vintages of France, Spain, and Italy, would scarcely admit, even to themselves, that “honest Jack Beardsworth” had taken them in. When Beardsworth’s racer, Birmingham won the Doncaster St. Leger, he could not have been worth less than 250,000*l.* It soon melted away on the turf. The whole story of the race is curious. The famous Jack Mytton, of Halstead, lost a great part of his estate by dealings with Beardsworth, and from 1826 to 1830, all Beardsworth’s racers were entered in Mytton’s name. One of these was Filha da Puta, the sire of a sickly colt which was foaled at Beardsworth’s. Orders were given to kill the colt, it was so weakly, but Mrs Beardsworth having seen it, said—“No: give it to me—I shall try and nurse it.” Accordingly it was given to her, and she had it carefully fed on bread and milk, &c., until it became quite strong and handsome. Lord Grosvenor saw the colt at a year old, and offered to buy it. Beardsworth said—“No; Mary owns Birmingham, and she intends running him for the St. Leger.” “And if he runs,” said Lord Grosvenor, “he certainly will win.” The animal became so tame that he used to follow Mrs. Beardsworth all round the dining-room

table, and allow the children to play with him. In fact the future winner of the St. Leger was as much domesticated as a dog or a kitten. Birmingham was duly entered for the Doncaster St. Leger, and as duly were attempts made to come at the blind side of Conolly, the jockey who was to ride him. Conolly informed Beardsworth of the offers made to him, and, acting under his advice, carefully pocketed every bribe. Conolly made extensive promises to all parties that Birmingham should lose. A man named Gregg took care that the horse should not be meddled with. To such an extent did this caution go, that the water for the horse was actually fetched from a distance of ten miles! Gregg actually lay in the stable, cheek by jowl with the horse, for ten days before the race. When the day came on, it rained cats and dogs, and Birmingham won by strength. Beardsworth had freely taken 40 *l.*, and cleared 40,000*l.* by the race. He presented Conolly, the rider, with 1,500*l.* His daughter and wife gave 500*l.* more, so that the rider got 2,000*l.* by his honesty. He was induced, by his success, to keep a racing stud of his own. He lost an immensity of money by it. Beardsworth was much attached to his wife. He always called her my “right hand man.” She kept all the accounts, made all money payments, and was, in fact, complete major-domo of his immense establishment. No man in England was better acquainted with the racing calendar! She died about two years since, and her death was the worst thing next to his own, that could have happened to Beardsworth. All his concerns were at sixes and sevens after her death. Beardsworth farmed the post-horse duties for the midland counties of England; and his wife, knowing the toll-receivers and inn-keepers cheated them, took a tour to every station, dressed as an officer in the army, discovered a thousand instances of fraud, and thus added at least, 10,000*l.* to the income of her husband.—Beardsworth married one of his daughters in 1830, to a cavalry officer, whose father was a wealthy sugar baker in Liverpool. His epistle to that worthy was laconic, but much to the point. It runs thus:—“Sir,—Your son loves my eldest daughter, and she loves him. They are determined to marry. You sell sugar and I sell horses. I am content to put down shilling for shilling, pound for pound, hundred for hundred, and thousand for thousand with you, to make a provision for the young couple. Your’s, JOHN BEARDSWORTH.” The sugar-baker refused his consent, so the match took place without. The newly married couple drove from church in a splendid carriage, with four bloods, a present from Mr. Beardsworth. In the pocket of the carriage was loosely thrown a draft from Beardsworth on his banker for 50,000*l.* This was his off-hand way of doing things. At Beardsworth’s death, he owed Government a balance of 35,000*l.*, and an execution was levied on the property; but it paid 20*s.* in the pound and over; so that after all there was some pecuniary provision made for his family, but not much.

ENORMOUS HIGHLAND KYLOE.—A very fine fat West Highland Kylee, which when alive was supposed to be about 130 stones in weight, was slaughtered here on Tuesday last, by Mr. Robert Dryden, flesher. The weight of the carcass, after it was slaughtered and dressed, was 70 stones 3*lb.*, and the offals was 34 stones 4*lb.* It contained upwards of 12 stones of tallow, and the head, feet, and tongue, weighed 5 stones 3*lb.* This fine animal was fed by Mr. Ephraim Selby, of Minto, and was exhibited yesterday week in this market, when it was greatly admired by many eminent judges for its symmetry and beauty.—*Kelso Chronicle.*

## ON AN ECONOMICAL MODE OF APPLYING BONE-DUST AS MANURE FOR TURNIPS.

The immense quantity of bone-dust which is now annually used as a manure for raising turnips, and enriching fallow land, may reasonably excite an apprehension that all the bones of animals which are killed for the use of man, and which are allowed to die a natural death, will be inadequate to supply the demand for them as a manure. Bones of animals being applied to many other purposes besides that of manure, it is extremely probable that, were they as liberally used in agriculture on the continent of Europe as they are in this kingdom, and were their use still farther increased in this country, the demand would greatly exceed the supply; for, under present circumstances, a great proportion of the bones which are bruised into dust in this country, besides bone-dust itself, is imported from abroad; and, even with this great foreign supply, we find the price of bone-dust has risen in value in the market from 2s. 6d. to 3s. 6d. a bushel. An apprehension, therefore, of a scarcity of it in future appears to be too well founded.

In order to advert, in some degree, the evils arising to agriculture from a scarcity of so valuable a manure as bone-dust, and to keep its price within the bounds of moderation, I have endeavoured to use it in an economical method for the last two years, by which half the quantity usually employed is quite sufficient to insure a heavy crop of turnips.

The quantity of bone-dust usually applied is two quarters per imperial acre: I use only one quarter per acre; but I always mix the bones with coal-ashes. These ashes may be procured in towns and villages, at a price not exceeding 5s. per ton; and the quantity mixed with the bones depends in a great measure on the quantity of ashes that can be obtained;—the more of course the better, but it should never be less than one or two quarters per acre.

The ashes are put in a dry place, under cover, such as a cart-shed, or out-house, and riddled as small as the bone-dust itself; that which passes through the riddle ought only to be mixed with the bones. The bones should be very carefully and equally mixed through the mass, which will be best effected by frequent turnings with the shovel. The turnings also assist in drying the ashes, which, if they are not, they will not pass easily through the hopper of the sowing-machine. The ashes should be collected as early in the season as possible, that they may get thoroughly dried. After the bones are mixed with the ashes, the mass ferments, and evolves a considerable degree of heat, which subsiding, assists the drying of the ashes considerably. To expedite the drying of the ashes, when they cannot be procured early enough in the season, I would recommend their being strewed with a dusting of hot lime, while the mass is turning over, in the same manner that pickled wheat is dried with lime to render it fit for sowing. I never tried this expedient, because I always procured an early supply of ashes; but I feel confident that it will answer the purpose. The compost is sown with the usual machine.

Turnips raised with this compost of bone-dust and coal-ashes, in the quantity alluded to, I have sold for £7 per acre, to be eaten off with sheep; and they always possessed the same character of a close crop, firm root, and hardness to resist the rigors of winter, that turnips raised with the bone-dust alone evince. I believe it is the bone-dust which alone secures the crop of turnips, whatever nourishment the ashes may impart to the crop at the future stages of growth.

Lest this be doubted, let the ashes be used alone, and a woeful falling off of the crop will inevitably ensue. Perhaps peat or vegetable ashes of any kind would be equally beneficial to mix with bone-dust as those of coal. It is known that any quantity of bone-dust above two quarters per acre, does not produce a corresponding increase in the bulk of the crop of turnips, though no satisfactory experiments have yet been instituted to ascertain how small a quantity of bone-dust alone is sufficient to procure a crop; but, I trust I have discovered how small a quantity of it may be used with a commodity which is in the reach of every person, so as to secure a crop,—a result which may be considered as one step towards a right understanding of the properties of so valuable a manure.

It may not be irrelevant to mention here a substance which has been described by Professor De-candolle, of Geneva, as a consideration of its properties may serve to explain the active energies of bone-dust as a manure.

Of all the different ingredients of which manures are composed, carbon is supposed to be that which holds the first rank as a food of plants; but it is only in a state to be the food of plants after it has united with the carbonic acid of the air. It is this compound, on being dissolved, which is taken up by plants as food. This substance was called *umine*, on account of its being first found in a diseased part of the elm; but M. Sprengel gave it the more general term of *humine*, because he found it to exist in soils.

Humine is a substance not unlike carbon, for which it has hitherto been mistaken. It is very soluble in spirits of wine, concentrated sulphuric acid, ammonia, and by heat in acetic acid; but it is insoluble in water, and water throws it down in all its solutions. It combines with all the salifiable bases, and forms the *humic acid*; but it has no acid taste, does not reddens vegetable blues and like the gallic acid, it contains only carbon and water, without excess of oxygen. There is a strong analogy between humine and other nutritive substances, such as gum or fecula. It forms a humate with an alkali, which is very soluble in water.

All substances which contain carbon are dissolved in the water of vegetation, through the means of humine; and the dissolved mass is taken up by plants as food. Humine in combination with lime, ammonia, or potash, becomes soluble in soils or dung, and thus becomes the food of plants.

Keeping in view these properties of humine, I think the action of bone-dust may be explained: and important conclusions may be drawn regarding the state in which putrescent manures should be applied to the soil. It is well known that bones ground into dust soon undergo decomposition in the soil. The decomposition disengages the phosphoric acid, and the lime and animal carbon is left to be acted on by the air; and which, being converted into humine, readily forms a soluble mass with the ammonia, lime, and acid of the bones. This dissolved mass is taken up by the water of vegetation, and becomes the food of plants. Moreover, the frequent application of putrescent manures to the soil, must accumulate a quantity of carbon in it, which will there remain in an inert state, till it is put into a fit state to be taken up as food by plants. Lime, bone-dust, or kelp, will render the mass of inert carbon active by the formation of soluble humine. The decomposition of vegetable substances is the best means of supplying the carbon which is to be converted into humine. Hence, then, we can explain how a fine black rich mould may become inert, or *dead*, as it is termed, till

it is limed; and also how it is that bone-dust raises heavy crops of turnips on such soils; hence, also, how it is that vegetable soils of an inferior nature, such as heathy, turfy soils, are improved by liming; hence we now see that the practice of applying the putrescent manures in a highly decomposed state to the land, is the state in which it contains the greatest quantity of humine in the same bulk of manure; and also that fermented dung being kept and applied to the soil in a *sappy state*, is the very best possible one to preserve the humine from waste during the process of preparing the dung for the land.

I sincerely wish that some able chemist will take up this very interesting and important subject, regarding the chemical action of putrescent manures in general, and of bone-dust in particular. By the mutual co-operation of the intelligent farmer and the acute chemist, results may be obtained which might greatly reduce the very heavy charge of maintaining the fertility of the soil, but without that fertility the soil would soon become a *caput mortuum*.

Before concluding, allow me to suggest to chemists the investigation of the nature of the change which is produced in the soil by the decomposition of animal bones, and what remarkable combination the substance of the bones enter into, to produce so active a manure as bone-dust undoubtedly is.

To assist in this investigation, I intend to make some experiments this summer with bone-dust in raising different kinds of turnips, and I shall carefully procure a little of the soil for chemical analysis.

G. B.

**BIRTH-DAY OF C. G. S. MENTEATH, ESQ.**—A number of the tenants upon the estate of Closeburn, met at Brownhill Inn, on Monday, the 16th May, to celebrate the birth-day of their worthy landlord, C. G. S. Menteth, Esq. Mr. Fisher had provided for them an excellent and substantial dinner, which along with the spirits and wines, gave universal satisfaction. Mr. John Johnstone, farmer, Whitespots, was in the Chair, and Mr. William Smythe, farmer, Barscar, acted as Croupier. Many excellent appropriate toasts and sentiments were given, and the company separated at a late hour, highly satisfied with the proceedings of the evening.

**REARING OF CATTLE.**—The present rage for the exportation of stock, or rather the unprecedented encouragement held out by the London Market to our Scottish agriculturists, has spread over the North like a Lammis tide. We know one gentleman who has purchased to the extent of about £1000, and is shipping off his stock by the *Duchess of Sutherland*, and the *Earl Grey* sailing vessel, that the cattle may be in Smithfield at as early a date as possible. In Cromarty and Roth-shires the farmers are equally on the alert; and in Caithness, we heard a good practical judge remark lately, there is at present as fine a show of excellent bred cattle as can be found north of Berwick. The favourite breed there is from the Teeswater bull and Highland cow; and this description of stock has been brought to great perfection, and reared in great numbers by Mr. Traill of Ratter, and Mr. Horne of Stirkoke. The latter gentleman, we understand, has at present one fine ox, four years old, which is considered even superior to the celebrated Dunearn ox. The transport of stock and goods from the North, has been so great that we observe a prospectus has been issued for another steam vessel to ply betwixt the Moray Frith and London! So

true it is, that all improvements grow up together, and are auxiliary to each other; if one lives it gathers round it others of a kindred description.—*Inverness Courier*.

**SALE OF FARM STOCK AT MOREHAM MAINS, EAST LOTHIAN.**—On Monday, the 16th of May, the extensive sale at Moreham Mains took place. The company present was numerous and respectable; and the result of the sale must have been satisfactory to Mr. Walker, the proprietor, as it was highly creditable to that gentleman as a breeder of the purest and finest description of farm stock. Every thing sold at what was considered to be very high prices. The fat cattle brought 9s. per Dutch, or 7s. 3d. per imperial stone. Yearling cattle, bred on the ground, sold at £9 9s. to £11 11s.; and two years-old short-horn £27 15s. One year-old bull brought as high as £45. The half-bred hogs, 32s. to 35s. Black faced wethers, fat, 40s. Cheviot and half-bred ewes and lambs, 42s. to 55s. Pure South-down ewes and lambs, and high-bred Leicester ewes and lambs, £3 10s. Work-horses sold from £20 to £40, and all descriptions of stock brought good prices. Our limits will not admit of any further enumeration of this extensive sale. Mr. Dingwall, the auctioneer, described the stock, and did his duty in a masterly style, much to the satisfaction of the gentlemen present.

**RAFTS ON THE RHINE.**—Those huge rafts which descend the Rhine to Dordrecht, and also in smaller masses to Amsterdam, and other parts of Holland, are remarkable objects in German industry and adventure. They also are for some time the site of habitations for those who navigate them. The women and children support their husbands and parents; and spinning, knitting, tailoring, dress-making, and other objects of thrift, are attended to with great industry. These rafts are nearly similar in construction to those I have seen floating down the St. Lawrence. In fact, floating timber down the American rivers in large masses was first attempted on the Hudson and St. Lawrence, by the early Dutch and German settlers. The rafts on the St. Lawrence and Ottawa are necessarily, on account of the rapids, bound stronger together than those on the Rhine: and the largest on the latter and on the American rivers, appeared to me much of the same dimensions—that is, about sixty to seventy feet broad, and six to eight hundred feet in length, with small plank-covered huts for the raftsmen to lodge in, and govern, while floating down the current, by means of anchors and immense oars or sweeps; boats also form an accompaniment. Like the river itself, these rafts gain magnificence in their passage. The timber which descends in small rafts from the Neckar, Murg, Maine, and Moselle, being afterwards connected at particular places, is all floated down the Rhine in one vast mass. The value of one of the largest rafts has been computed by Schreiber, at 350,000 florins, or about 30,000 sterling. It affords occupation during its course to from eight hundred to nine hundred persons. The consumption of provisions alone, from the time its construction commences until it is sold at Dordrecht, is stated at 45,000 lbs of bread, 30,000 lbs of flesh and dried meat, 15,000 lbs of butter, 10,000 lbs of cheese, 50 sacks of dried vegetables, 500 tuns of beer, 8 butts of wine, and several other articles. The live stock for fresh meat is carried on the raft, as well as every other article of provisions. The history of a large Rhemish raft, from the time the trees are beginning to be felled in the forests of Germany and the raft constructed, to its delivery at Dordrecht—its separation, whether for the saw-mills of Holland, or for its exportation to other countries—and its final application, after going through the carpenter, wheelwright, joiner, or upholsterer's hands, to useful purposes—would form curious details of manners and employments.—*M'Gregor's Note Book*.

## DESCRIPTIONS OF SEVERAL NEW VARIETIES OF FRUIT,

Raised by T. A. KNIGHT, Esq., from Seed : together with Notes thereon by Mr. Knight.

The following account of some of the new fruits raised at Downton, has been prepared from descriptions made in the Society's Garden, by Mr. Robert Thompson, to which Notes have been added by Mr. Knight. As these varieties appear of considerable importance, it was considered desirable that an early opportunity should be taken of making the public acquainted with them.

1. *March Bergamot Pear*.—Fruit middle sized, in form and appearance resembling the Autumn Bergamot. Flesh buttery, a little gritty near the core, rich and excellent. Season, March, or later.—*Note*: Owing to its resemblance in form to the Autumn Bergamot, and its ripening chiefly in March (it may be preserved later), I have named this sort the March Bergamot.

2. *Pengethley Pear*.—Fruit middle-sized, obovate, a little curved at the stalk. Eye small and a little open; stalk about half an inch in length. Skin yellowish brown and considerably russeted. Flesh yellowish, juicy, and rich: a very good pear. Season, February and March.—*Note*: The Pengethley Pear remains in perfection quite as late in the spring as the March Bergamot; and it is larger and more juicy, and its appearance more inviting. Some persons who tasted both in the present spring, thought it the best pear of the two. The very high price of pears in the spring, in the London and other markets, induces me to think that both these varieties might be cultivated with much advantage. This first appeared in the Autumn of 1831, and was then very fine. The tree is large, and its growth excessively luxuriant.

3. *Ross Pear*.—Fruit large, obovate. Eye open and slightly sunken. Stalk short, moderately thick. Skin yellowish green, interspersed with russet. Flesh inclining to yellow, gritty near the core, but rich, juicy, and sugary throughout. Season, January.—*Note*: This first appeared in 1832. The fruit was all of large size; and I suspect that in a more favourable season and better climate, it will become very large. The growth of the original tree is extremely luxuriant.

4. *Oakley-Park Bergamot*.—Fruit middle-sized, roundish obovate, resembling a large swan's egg. Eye partly open, in a regular formed cavity. Stalk an inch and a half in length, rather slender and a little sunk at its insertion. Skin, greenish-yellow, sprinkled with russet. Flesh buttery and melting, rich and excellent. Season, October.—*Note*: The tree is of free growth, and has borne in the three last years.

5. *Brougham Pear*.—Nearly of the middle size, obovate. Eye open in a regular formed depression. Stalk short. Skin yellowish russet. Flesh yellowish-white, buttery, a little gritty near the core, sugary and rich. Season, November. This sort is highly deserving of cultivation where flavour rather than size is the principal object.—*Note*: This is not a small pear, though the sample sent was small. It is at least as big as the Autumn Bergamot; but I had sent away to several friends the largest and best samples; and I never saw my pears so small as in this year (1833) owing to what cause I do not know; but probably to the drought in the early part of the summer. I have named it the Brougham Pear, a

sample sent by me to Lord Brougham having been approved by his Lordship.

6. *Bringlewood Pear*.—Fruit middle-sized, pyriform. Eye open, with the segments of the calyx prominent. Stalk long and rather slender. Skin yellowish brown, almost covered with russet. Flesh yellowish-white, a little gritty near the core, the rest buttery, rich and very excellent, with something of the peculiar flavour of the Monarch Pear. Well deserving of cultivation. Season, end of October till beginning of December.—*Note*: This variety did not prove nearly as good in the following year as in that in which the sample was sent to the Society; it was nevertheless a good pear, though inferior to others of the same season of maturity.

7. *Moccas Pear*.—Fruit middle-sized, obovate, with a short stalk. Eye somewhat open, and very slightly sunk. Skin brown. Flesh inclined to yellow, melting, juicy, rich and high flavoured, resembling in this respect the Monarch Pear, and almost equal to that very excellent variety. Season December.—*Note*: This is, I think, a very fine pear, but the sample sent was not equal in quality to the former produce. \* \* \* Tree of excessively rapid growth, and very productive of blossom, which I have reason to believe capable of bearing, without injury, very unfavourable weather.

8. *Broom-Park Pear*.—Fruit nearly middle-sized, roundish. Eye in a moderate sized hollow. Stalk about an inch in length, moderately thick. Skin entirely covered with cinnamon-coloured russet. Flesh yellowish, melting, juicy, with something of a melon flavour, sugary and rich. Its very peculiar flavour may be said to partake of the melon and pine-apple. Season, January. A sort highly deserving of cultivation. *Note*: The singular mixture of flavour in this pear was noticed here as well as in London. The tree is fine, and has borne well in two seasons in which alone its fruit has existed.

9. *Croft-Castle Pear*.—Fruit middle-sized, oval. Eye open in a shallow depression, with the segments of the calyx reclining. Stalk about an inch and a half in length, rather slender, and somewhat obliquely inserted. Skin pale yellow, not glossy, but rough with elevated dots, and partially russeted. Flesh whitish, a little gritty, but melting and very juicy, rich and sugary. An excellent pear. Season October.—*Note*: A variety of dwarfish growth, but very productive of fruit.

10. *Eye-wood Pear*.—In shape and size very similar to an Autumn Bergamot, but of deeper cinnamon-russet colour. Flesh yellowish white, melting, buttery, juicy, and very high flavoured. It is doubtful whether it would be exceeded by Gansel Bergamot in a better season for standards than that of 1831, when the above description was made. Season, October or November.—*Note*: In 1833, when other varieties of pears did not attain their usual excellence in Herefordshire, this was found to be very good. The tree is of very free growth, and has borne well during the the last four years, the period commencing with its existence as regards a bearing state. The sample sent was below the average size.

11. *Dunmore Pear*.—Fruit above the size of a Brown Beurré, obovate. Eye open, slightly depressed. Stalk about an inch in length, of medium thickness, rather fleshy at its junction. Skin brownish-red next the sun; yellowish with a scattering of brown where shaded. Flesh yellowish-white, melting, and extremely juicy, sugary and rich: a little gritty near the core, but on the whole a most excellent pear. Season, end of September, or beginning of October.—*Note*: This variety is as large, I think, as the

Brown Buerré, and I have never tasted the last mentioned sort better than the Dunmore. When it has remained to ripen and grow yellow upon the tree, I have thought it the most melting and best pear of its early season. The birds are apt to destroy most of the crop prematurely. The tree is fine and perfectly healthy. Grafts of it, which were inserted into stocks two years only ago, afforded an abundant blossom in the last spring, and are now bearing fruit; though the weather in part of the spring was extremely unfavourable, and destroyed every blossom of the more delicate varieties. The trees are of very rapid growth, and the varieties appear to be extremely well adapted to cold and late situations.—*Transactions of the Horticultural Society of London, vol. ii.*

### TO THE EDITOR.

SIR,—Allow me to address a few lines to you on a subject which I humbly conceive may prove of immense advantage to the cultivators of the strong and retentive soils of this kingdom, who have suffered more than any other class of farmers from the low price of wheat.

Occupying a considerable quantity of heavy land in the county of Worcester, I have, from personal observation and experience, seen the great improvement to the land, and consequent addition to the crops of corn and grass, that may be derived from surface and furrow draining; and, knowing the imperfect manner in which many farmers (myself included) have done it, and of course been of little service, has prevented many from following a practice which its great utility deserves.

The average depth of surface drains is from 18 to 20 inches, the nearer the surface the better, taking care to keep them out of danger from the plough, tread of horses, and waggon wheels. The great injury to those drains where the common draining tiles are used is the sinking, and therefore the stopping up of the tiles, and the stopping up of them by moles, which was very ably shown by a correspondent in your paper from near Bridgewater. Now, unless flat tiles are used with the arched ones, and the greatest care taken in laying them to make both ends of each sort meet, the drains will soon cease running from one of the causes mentioned. This method of laying drains with two sorts of tile (which is the only safe one in use) is a very expensive one. I have therefore endeavoured to find out the most economical and at the same time the most perfect way of making such drains, and flatter myself the improvement I have made will be found fully to answer the purpose intended.

Having taken a brickyard for the purpose (after some experiments), I succeeded in making tiles of the same length as the common ones, but forming a perfect tube. These tube-tiles will not be so expensive as arched and flat tiles together by one-fourth; they will also (with the proper tools) be laid for one-fourth less money, and are not so liable to break with any kind of pressure; should a mole get in at the end, it must return or pass through the entire drain, and of course do the drain no injury. They will also keep cleaner; for being of very smooth surface inside, the water will wash them out. They are not liable to break in the carriage, and can be made of any size.

Should you or any of your valuable correspondents consider this improvement of sufficient importance to agriculturists generally, I shall, upon seeing an opinion to that effect, devise means (to all persons

desiring it) to supply them with the necessary information as to the expense, method of making, with the moulds, &c. used, and the tools employed to lay them to the best advantage.

I am, Sir, your obedient servant, R. S.

Worcestershire, May 16, 1836.

YORKSHIRE STATISTICS.—*Present Traffic by Land.*—The number of coach-passengers from York yearly to Leeds is 36,320, to Hull 18,224, to Selby 15,856, to London 23,360; total 93,760.—From Hull and Selby to Manchester and the West Riding of Yorkshire, 51,100; passing from the North to the South, and vice versa, by post horses, upwards of 20,000. The average coach-fare from York to Leeds is, inside 9s., outside 6s.; to Hull, inside 10s., outside 6s.; to Selby, inside 4s., outside 2s. 6d.; to London, inside 3l. 8s., outside 1l. 15s. The time of the journey from York to Leeds is 3 hours; to Hull 5 hours; to Selby 2 hours; to London 24 hours. The number of coach parcels from York to and from the towns above mentioned, yearly is 219,000; the charge upon each averages from 1s. 2d. to 3s. 4d. 110,600 sheep and 53,000 cattle are driven from York to Leeds annually, the former at the cost of 2½d. to 6d. per head, and the latter from 1s. 6d. to 3s. per head; the time occupied in the journey being from 1 to 3 days. The agricultural produce sent by carts from York to Leeds annually is 3,950 tons. The goods sent by waggon from York to Leeds averages 3,675 tons per year, at the average charge of from 13s. 4d. to 2l. per ton, the time of the journey being 12 hours. From York to Pontefract and Doncaster 572 tons, at the average charge of from 2l. to 2l. 13s. 4d., the time occupied by the journey being 6 to 9 hours. From York to Hull and Selby, 1,300 tons, at the average charge of 13s. 4d. to 16s. 8d. from York to Selby, and from 1l. to 1l. 13s. 4d. from York to Hull, the time of the journey to Selby being 5 hours, and to Hull 16 hours. *Present Traffic by Water.*—Passengers from Hull and Selby to and from York, 20,300; the time occupied in the journey from York to Hull is 9 hours, and from York to Selby 3 hours. *Goods.*—From Leeds and Wakefield and the respective neighbourhoods, about 98,000 tons of coal, and 4,000 tons of stone annually, at the average charge of 3s. to 6s. per ton. From Brotherton and Knottingley to York, 10,000 tons of lime annually, at the average charge of 3s. 9d. per ton; from York to Leeds and Wakefield, 30,000 tons of flour, grain, shelling, &c., at the average cost of 7s per ton. The time occupied in the journey occupies from 4 days to 10 days, a fortnight, and three weeks. From Manchester to Hull, 43,100 tons of cotton twist manufactured, and woollen goods, the time of the journey being from 6 days to 2 or 3 weeks. Between York and Leeds, York and Selby, and Hull, York, and London, 8,000 tons per annum of general merchandise.

CURIOUS PLANT.—In the island of Cuba is a plant which emits such an intense perfume as to be perceived at the distance of two or three miles. It is of the species *Tetracera*, and remarkable for bearing leaves so hard that they are used by the native cabinet-makers, and other mechanics, for various kinds of work. It is a climbing plant, which reaches the tops of the loftiest trees of the forest, then spreads far around, and in the rainy season is covered with innumerable bunches of sweet-smelling flowers, which, however, disperse their perfume during the night only, and are almost without scent in the daytime.—*Poeppig's Travels.*

## AGRICULTURAL SOCIETIES, No. 1.

TO THE EDITOR OF THE YORK CHRONICLE.

SIR,—The improvers of agriculture, may doubtless be classed amongst the benefactors of mankind. An increase of the supply of food is a national concern: a blessing conferred on each individual member of the community. But there is no class of persons whose character is less formed for adopting improvements than the farmers. This arises partly from their situation, but more especially from their habits. It is characteristic of human nature, when deprived of constant intercourse with persons of various casts of mind, to acquire habits of eccentricity. The farmers, in general, are far removed from each other;—seldom meet in bodies, and know little of each others' feelings or practice, except those immediately around them. Hence from their necessities arise habits; from habits, deeply rooted and inveterate prejudices. I speak this not to disparage the farmers, nor do I say that all are thus either situated, or constituted. Wonderful and amazing improvements have taken place amongst them, but they arose from their originators being exceptions to this rule. Of the breeders of cattle, Bakewell was doubtless the greatest, and first improver; but how did his improvements originate? To use his own words, by "seeing what others were doing." We never can expect to effect any general change in the character of the farmers, without we can bring them together. If this can be accomplished, it will be found to inform them of their mutual wants and imperfections; of the nature and importance of their situation; and will considerably tend to remove their prejudices, and lessen their antipathies to any improvements in the mode of cultivation of their ancestors.

But there are difficulties even in doing this. Something advantageous must tempt them; some "number one" return must be exhibited, or else their emulation, or their pride, must be excited. For this purpose agricultural prizes are invaluable;—they offer pecuniary profit, arouse emulation, and excite a diligence and activity in agricultural pursuits, to which, without them, it is in vain to expect to attract the majority of farmers. In alluding to agricultural societies, I may observe that they divide themselves into three classes. For the awarding of agricultural prizes:—for the extension of agricultural knowledge; and for political objects alone. The first mentioned class I shall refer to in the present article. They have effected much in the improvement of practical agriculture. They have roused a spirit of emulation and honest pride; have called forth the energies of the nobility of our country, and consequently have attached a degree of respectability to farming affairs, which it would otherwise never have attained, and which places it far beyond either the manufacturing, or commercial professions. The mixture of enterprising characters, of the higher and lower classes, has had a softening influence on both, and the jealousies,—would they were annihilated!—between landlord and tenant, have disappeared, and mutual confidence has been established. One objection may be raised against them;—that they generally award their prizes to *monsters*;—to pampered animals, loaded with fat, and where their distinctive qualities are lost in the accumulation of fat; that they are, in short,

"Too dear to buy, too fat to eat."

This objection is not, however, forcible as at first sight it appears to be. They have effected a desirable point; they have turned the attention of intelligent and unprejudiced persons to breeding;—have decided what particular *points* are desirable, and what

breeds and conformations are favorable to the accumulation of fat, in the shortest time, as well as the best kinds of food for effecting that purpose. Their meetings too, have disseminated and diffused the knowledge so attained, and experiments have been instituted by *gentlemen of fortune*, who could spare time, and expense, to effect their purposes; and which, though some were miserably and ignorantly conducted, and some totally failed, had the same ultimate tendency; furnished lessons of experience to the farmers who had neither the power nor will to buy themselves. Look, for instance, at the Smithfield Club cattle show. It has done more to further the breeding, and grazing departments of agriculture, in the above way than all the other endeavours put together. There are also other shows eminently useful in their localities, and they are springing up, and advancing, especially in the neighbourhood of large market-towns. It is a mistake, however, to think that they need to be so expensive as is generally imagined;—mere nominal prizes, in small places, will be formed to answer all, or nearly all, the useful purposes of more expensive awards; and it is extremely desirable to have them scattered through the country as they are attended with less expense in conveying the cattle, and equally serve to bring the best breeds and breeders into the notice of buyers. One fault is to be found with too many of their meetings. Why always choose the large farmers to be judges of the stock? Are not many of the smaller ones as intelligent, and of as sound judgment, and more so, than they? Another excellent plan is the giving of prizes to farm labourers, as performing specified work in the most workman-like manner;—as having been the longest term with one master; and having brought up the largest family without parochial relief. This cannot be too much encouraged, as it creates an independent spirit, and causes them to attach a degree of importance to themselves, which it is desirable they should possess. It is to be hoped that such societies will be universally formed, as they do not at all interfere with any party opinions.

W. E. N.

NEW POOR LAWS.—A letter from the clergyman of Wootton Bassett, states, that in that Union, the reduction in the last year's expenditure had been 6000*l*, compared with the prior year's expenses, which were 14,000*l*; that the agricultural labourers were in better employ; that the system of giving relief in bread was highly approved of by the poorer class of females, as such relief could not be turned to any other purpose than for the necessities of their families; that the custom at the beer-houses had very sensibly decreased; and that altogether there was a better feeling of respect on one hand, and a disposition to employ the labourer on the other, than had ever before prevailed in that neighbourhood.

SPANISH HUSBANDRY.—We have (near Saragossa) for the first time seen the primitive process of trampling out corn: the grain, almost as soon as cut, is laid down on a circular brick platform; a man stands in the centre of this and drives round the mules, which vary in number from two to four, according to the size of the platform; after the grain is trampled out it is separated from the chaff by being thrown up into the air in large wooden spades, the atmosphere being at that season so very dry that the lightest breeze is sufficient to carry off the chaff.—*A Summer in Spain.*

## PROSPECTS OF SCARCITY IN IRELAND.

Prosperity seems to prevail everywhere in England, as tranquillity does unquestionably in Ireland. The Englishman may say, and does say, that never was any thing so prosperous as trade, manufactures, and even agriculture. The Irishman, with equal justice, may exclaim, that he never remembers Ireland so tranquil.

There is one drawback, and it would be a breach of duty on our part not to notice it, particularly as it does not seem to have attracted much of the attention of our contemporaries—namely, the prospect of scarcity, and the actual suffering, at this moment, in a great part of Ireland. We have had, virtually, no spring, and within the last week or ten days we have jumped from rain, sleet, and hail, into the middle of broiling summer. There has been no vegetation worth speaking of in spring, and since the arrival of summer the grass has been burnt up, and grain is withering in the fields. Cattle are dying for want of provender, particularly on the western and northern coasts, and the people are already suffering the severest privations. Since Christmas the meat market has been raised forty per cent.; vegetables, including potatoes, are three times as dear as they were last year. In short, we are threatened with a fearful scarcity.

No doubt the enhancement of agricultural produce may, in some degree, be attributed to the quantity of money now in circulation. But this is not sufficient to account for the advance which has taken place. It is attributable, principally, we are satisfied, to the backwardness of the season.

This warning will not be found to be amiss; for we are satisfied that before many weeks shall have elapsed there will be calls upon government for relief to the peasantry.

And this is a period in which time for instituting some system of poor laws is still mooted. There can be little doubt, if rain do not speedily descend, another month will scarcely elapse when the cries of famishing thousands will reach the shores of the sister country, and there must necessarily be an outlay of money for their relief. But of this we are certain, that our Auhrim gentleman, who gives a man fivepence for a summer day's work, and who charges his serf seven or eight pounds for his con-acre, must be assessed. We preach patience; we are patient ourselves; but we reiterate it for the last time, that we can have no peace in Ireland worth a moment's fee until something be done to emancipate the peasantry from this unnatural position.—*Dublin Evening Post*.

**CARRIER PIGEONS.**—In the course of a lecture delivered on Friday evening at the Royal Institution by Mr. Mayo, on sensation, when speaking of instinct, he gave the following account of the carrier pigeon:—He stated that the Dutch variety was the most valuable, a pair of the best kind being worth from 5*l.* to 8*l.*; this bird is lighter than the English carrier pigeon, and flies nearly as fast again. It proceeds at the rate of 60 miles an hour—a mile a minute—and has been known to complete a journey of 800 miles; but this, it is presumed, is not continuous, but assisted by occasional rest. When the bird is about eight or ten weeks old, the trainer says it begins to run, that is, it flies away for four or five hours; then its education begins; it is taken about a mile from its place, and tossed; it returns. And this manœuvre is repeated every day for a week, and then the distance is doubled. After a time it is carried 3, 4, 8, 12, and 24 miles, until it is perfect in its exercises. The bird learns but one lesson; it may carry from Antwerp to London, or any other place, but it will only pass between the two places. It travels by sight. When tossed, it circles, then rises in a spiral,

observes its route, and darts off. It will not fly at night, and should the day prove foggy, its arrival will be much delayed, or the bird may be completely lost.

**UNPRECEDENTED CANINE ATTACHMENT.**—The following narrative of the affection displayed by a dog to its master, which continued after the death of the latter, and exists at the present day, exceeds any thing we have ever known, not only among the brute, but even among the human species. Hundreds living in and around the village of Dalrymple will readily attest the facts which follow. The animal was a common shepherd's dog, and his master was the late William M' Millan a cottar, formerly herd of the late Lord Alloway, "Aiton," for such was the dog's name, had long been looked upon, during his master's lifetime, as singularly sagacious. Among various traits of this, is the fact that he regularly accompanied his master to church on Sabbath; but would never enter the door. He lay down out side till the people were dispersing, when he singled out his master, gave a whine of recognition, and erecting his tail trotted proudly home before him. When his master was seized with the illness of which he died, all the inmates of the house could not keep the dog out of his bed; and, if by stratagem he was ejected, he kept up a constant moan, and at the ingress or egress of any one, he sprang past them, and nestled himself in the bosom of the dying man. When the vital spark had fled, his howling disturbed and alarmed the neighbours, particularly after night-fall, and if excluded from the bed in which the corpse lay. He watched, with anxious eye, the preparations for the interment, and followed the mournful procession to the church yard; but the grave he could not be induced to leave, and, unless he had been carried away by force, he would have exhumated the corpse. Ever since the interment, which took place at Martinmas last, has the faithful dog nightly gone to the gate of the churchyard, where he moans and howls without ceasing till day-light, when he returns home. The Rev. Mr. Wallace, Minister of the Parish, whose humane feelings are highly appreciated, ordered the servant to carry meat to the poor animal, of which he readily partook; but neither caresses nor threats were of avail in banishing him from his nocturnal watch. Several families in the immediate neighbourhood being disturbed by his cries, a son of his late master, residing at Galston, took the dog there with him; but within the last few days he is returned, and recommended his midnight visits and lamentations.—*Ayr Advertiser*.

**MR. COKE'S BIRTH-DAY.**—On Friday fortnight, the 82d anniversary of the birth of the above highly distinguished and consistent patriot was celebrated at Dereham by a dinner at the King's Arms Hotel, at which a large number of gentlemen of the town and neighbourhood assembled. The day was also celebrated at Wells and Downham Market with the accustomed cordiality, by agriculturists and landowners.

**THE CROUP.**—The *American Medical Surgical Journal* recommends to mothers and nurses, when a child is seized with that dangerous disease, the croup, to apply immediately and perseveringly, until medical aid can be obtained, to the throat and upper part of the chest, sponges or napkins dipped in water as hot as can be borne, and wrung out so that the water may not ooze from them. The remedy was first suggested by a German physician, and has been practised with decided and uniform success.

## AGRICULTURAL REPORTS.

### GENERAL AGRICULTURAL REPORT FOR MAY.

From the 27th of April, the concluding date of our last month's report, till early in the morning of the first of the present month, the atmospheric temperature, notwithstanding that the wind still continued to incline to the northward and westward, was tolerably mild, and, in some degree, vegetative, but by 3 A.M. had become—precisely as on that day twelvemonth—exceedingly turbulent, cold, and humid, the wind backing into, and blowing a strong gale, accompanied by frequent heavy showers of rain from the north-west, which description of weather continued till the evening of the fifth, giving to the whole range of both high and low vegetation a chilly and severely checked appearance; and afforded speculators in grain a plausible, but very short-lived excuse for demanding advanced prices. However, these unwelcome visitations having been followed by a full week's succession of mild, sunny, and otherwise summer-like days, vegetation very speedily resumed its best May complexion, and, though it has had to contend with a considerable number of cold nights and almost sunless days, has subsequently, owing, possibly, to the richly-mellowed state of the soil, by the before-mentioned heavy rains, and a few subsequent genial showers, become tolerably luxuriant, vigorous, and healthy. It has been an assertion amongst old farmers, from the earliest date of our acquaintance with them, that a cold May is ominous of good human and animal health, and full barns. Every description of live farm stock is represented as being generally healthy, and the generality of the pastures sufficiently stocked with grass to be capable of subsisting their full May numbers of sheep and beasts.

The wheat, oat, and barley crops are described as well-stocked, vigorous, and healthy, and the most backward part of the latter, nearly the whole of which was sown at, or very shortly after, the commencement of the month, is well above ground.

The hop bine, too, which is, generally speaking, according to the quality of the soil and situation on which it is growing, described as having crept from about four to nearly, or quite, six feet up the poles, is represented to be remarkably strong and healthy.

The field labours of the month have chiefly consisted of preparing lands for denchering, or burn-baiting, giving the second fallow, and picking of stones from those which are to remain uncropped till autumn, draining those which had been too much flooded by spring tides and drains, weeding, growing corn, &c.

As relates to the legislative and other political complexion of agriculture, farmers vehemently deprecate the result of the Inquiry of the Parliamentary Committees, relative to the Commutation of Tithes, and exclaim violently against the parsimonious rapacity with which the Church still clings to exorbitant tithes, the whole of which we have heard many of them—i. e., the farmers—declare, in

the course of the month, were given to it by law; therefore, in these times of agricultural oppression, the law ought to deprive it of an equitable portion of its enormous revenue.

The Central Agricultural Committee is said to be in a deplorably bewildered and desponding state, not knowing where to hide its diminished head, on account of having promised much and performed nothing!

As relates to prices of the produce of England's neglected soil, those of fat stock, on account of at least seven eighths of it passing, in some instances, through the hands of two, three, or more, jobbers, ere it reaches either Smithfield or Islington market, without having afforded its graziers more than barely moderate remunerating prices—are, for a period of 21 years of profound peace, exceeding high; whilst store sheep and beasts, generally speaking—milch cows, store pigs, suckling calves, good horses, poultry, dairy produce, wool, hops, hay, and corn—though the three latter have been looking a little downwards—are high enough, were there no intermediate profit, beyond a mere agency, to absorb the profits of their producers.

Here follows a retrospective statement of the supplies and prices of fat stock exhibited in Smithfield market—with the exception of that clandestinely smuggled into it—in the course of the four weeks, ending on May the 23rd, current year, &c.

		SUPPLIES.				
		Beasts.	Sheep.	Lambs.	Calves.	Pigs.
April	22.	700	3500	1500	200	390
May	2.	2320	11600	2500	280	450
—	6.	430	2000	1200	250	250
—	9.	2026	10000	2500	220	325
—	13.	430	2000	1300	270	380
—	16.	2250	12000	3000	290	380
—	20.	410	3500	5000	315	415
—	23.	2510	10400	7000	225	342

Total ..	10576	55000	24000	2130	3102
Supply of preceding month. }	15070	79350	7350	2030	3310

It will be seen, by the foregoing numbers, that the supplies of the present month contained 4,494 beasts, 24,350 sheep, and 208 pigs less, 16,650 lambs, and 100 calves more, than those of last month.

PRICES.—At per 8lbs sinking the Offals.

	April 29.		May 23.	
	s. d.	s. d.	s. d.	s. d.
Inferior Beef . . . . .	2 6	to 2 8	.. 2 10	to 3 0
Middling, do. . . . .	.. 3 0	to 3 6	.. 3 3	to 3 8
Prime, do. . . . .	.. 4 4	to 4 8	.. 4 2	to 4 8
Inferior Mutton . . . . .	.. 3 4	to 3 8	.. 3 4	to 3 8
Middling, do. . . . .	.. 4 0	to 4 4	.. 4 2	to 4 6
Prime, ditto, . . . . .	.. 5 4	to 5 8	.. 5 6	to 6 0
Lamb . . . . .	.. 6 4	to 7 0	.. 5 10	to 6 4
Veal . . . . .	.. 4 2	to 5 0	.. 4 2	to 5 2
Pork . . . . .	.. 3 6	to 4 8	.. 3 6	to 4 8

It appears, by the above statement, that the prices of beef and mutton have advanced from 2d to 4d,



those of lamb have declined from 6d to 8d; of veal, 2d per 8lbs, whilst those of pork remained stationary.

	May 25, 1835.		May 23, 1836.	
	s.	d.	s.	d.
Coarse and inferior beasts	2	0 to 2	2	10 to 3
Second quality do.	2	6 to 2	10	4 to 3
Prime large oxen	3	10 to 4	0	0 to 4
Prime Scots, &c.	4	2 to 4	6	4 to 4
Coarse and inferior sheep	2	2 to 2	4	4 to 3
Second quality do.	2	6 to 2	10	4 to 4
Prime coarse-woolled sheep	3	6 to 3	8	4 to 4
Prime South Downs do	3	10 to 4	2	5 to 6
Lambs	5	0 to 6	0	5 to 6
Large coarse calves	3	4 to 4	0	4 to 4
Prime small do.	4	4 to 4	8	4 to 5
Large hogs	3	0 to 3	6	3 to 4
Neat small porkers	3	8 to 4	0	4 to 4
Suckling calves (each)	8	0 to 26	0	14 to 30
Quarter old store pigs (each)	8	0 to 12	0	12 to 20

SUPPLIES.

	May 25, 1835.	May 23, 1836.
Beasts	2,091	2,010
Sheep and lambs	20,750	17,400
Calves	153	225
Pigs	450	342

It will be seen, by the above comparison, that the prices of beef were from 2d to 10d; of mutton, 1s 2d to 1s 10d; lamb, 4d to 10d; veal, 6d to 10d; and of pork, 6d to 8d per 8lbs dearer on Monday, May, 23, 1836, than on the corresponding market day of last year, viz. May, 25, 1835; whilst there were 81 beasts, 3,350 sheep and lambs, and 108 pigs less; 72 calves more on the former, than the latter market day.

From the 29th of April to the 23d of May, about 485 of the beasts came up the St. Alban's Road; about 475 up the other northern roads; about 4,830 from Norfolk, Suffolk, Essex, and Cambridgeshire; about 720 from the western and midland districts; about 2,370 from Scotland; about 340 from Kent, Sussex, and Surrey; and the remainder, including about 160 towns-end cows, from the marshes, stall-feeders, cow-keepers, &c. near to, and within a few miles of London.

The mutton season of our northern districts is rapidly approaching its meridian height; though nearly, or quite, a moiety of the sheep, and by far the greater part of the lambs, come from our south-eastern, southern, and western districts. More than a moiety of this month's beasts have been Scots and Norfolk homebreds; about an eighth, runts and Devons; and not far from a moiety of the remaining eighth, Herefords; the remainder, chiefly Sussex, with a very few Irish beasts and towns-end cows; as also about 1,850 sheep, with not an inconsiderable quantity of slaughtered meat, chiefly mutton, by sea from Scotland.

LINCOLNSHIRE.

Immediately after my last report the weather changed from extreme wet to that of cold, dry scarping wind, chiefly from the north and east, with frosty nights, where it still continues without any appearance of removing; a few warm days intervened before and after the great eclipse with occasionally a south wind followed by a slight shower in some places.

The grass, however, has but little grown, and in the marshes the food for beasts is very scarce, and the usual quantity of sheep cannot be laid on; hence, the markets appear over-stocked, and both cattle and sheep have lowered in price.

The meat markets have kept up, first, because the winter-fed beasts are becoming scarce, and those which require a short time at grass cannot be turned

out except partially, and in the month of June the supply must be very limited, and consequently beef will be dear.

Then the grass sheep are fat, but the graziers clip sparingly to obtain a heavier weight of wool, and only send to market a sufficient number to make room for their store sheep.

Dry weather being the most propitious for wheat in the month of May, wherever that corn looked healthy it has grown rapidly, and is sufficiently forward; but those crops which were thin on the ground have not tillered out, and are growing up spiry and pale-coloured; while the stiff clays are not a half a crop; and the wire-worm is making great havoc in the East Fen.

The spring corn is set fast for want of rain, and in very few situations covers the land, the late sown having only about half come up, and the face of this county at large shows a smaller portion of luxuriant green than is usual at this season of the year; and, should the nights continue frosty and the weather dry another fortnight, the oat crop must be almost a total failure.

The beans appear short, but more healthy, and a fuller plant than for several years. I take it according to the old maxim, "Sow beans in mud, they will come like a wood."—May 21.

AGRICULTURAL REPORT FOR APRIL.—IRELAND.

FROM THE BELFAST NEWS-LETTER.

This month has been characterised by weather of remarkable severity, exceedingly unfavourable for the operations of the husbandman, and equally ungenial for the vegetable creation. Farm labour has been greatly retarded in consequence of the frequent and heavy falls of rain, and is in a very backward state in districts where the soil is of a stiff, cohesive nature. The land has been, at different periods during the month, in a tolerable working state, but it scarcely continued so 48 hours in succession. A great quantity of oats has been sown, the greater part of which under very unpropitious circumstances; and much of the ground, as yet, remains unsown. Very little spring wheat has been sown. Wheat in general has a weak, unhealthy appearance—thin, and far from being luxuriant. There is not so much thrown out as would have been expected by so many alternate frosts and thaws during the spring.—Young grass is pretty well stocked with plants, but rather backward, having been so much curbed by the frost and cold, bleak winds, which have been so prevalent during the preceding and present months. Any stones upon the surface should be gathered, and the grass rolled, as soon as the land is sufficiently dry to bear the treading of the working cattle. This crop should always be rolled—it consolidates the surface, which makes the clovers and grasses grow with greater vigour, and, in the mowing season, enables the workman to perform that operation with greater freedom and facility, and to cut it much closer to the surface. It is an old adage, and a true one—"that an inch at bottom is worth two at top." Where clovers and grasses are not as yet sown amongst the growing wheat, it should be done as soon as the state of the land renders that operation practicable; and the accompanying tillage requisite on the greater class of soils, is a double turn of the harrows along the ridges, and a single turn of the roller across. This process of tillage is highly beneficial to the wheat crop, almost under every circumstance, and particularly so when the roots of the plants are partially

raised above ground by too thick sowing, or the sudden contraction and expansion of the soil, in which state the plant becomes feeble, or perishes, if neglected. Where barley or oats are sown, or remain yet to be sown, after a green crop or summer fallow, under a proper system of rotation, clovers and grasses should be sown along with them. Any potatoes that have been planted during the month, have been chiefly put in by the spade, the ground being too wet for the drill husbandry. Beans, which are beginning to appear above ground, should be well harrowed across, which destroys the weeds that may be springing up, and tends to promote the vegetation of the plants. Care must be taken to clear out all the cross channels, to prevent the stagnating of surface water, nothing being more destructive to a crop of beans, at this stage of their growth, than to permit water to stagnate on the field. As soon as the grain crops are sown, no time should be lost in preparing the land for the potatoes, and have them planted. A thorough preparation of the ground is essentially necessary, by repeated ploughings, harrowings, rollings, and gathering of weeds. All the land intended for turnips should be ploughed across, and that intended for Swedish prepared as early as possible, as they require to be sown about the middle of next month. Summer fallows should also be ploughed in the direction of the former ridges, to keep down weeds and facilitate the subsequent operations. Stack-yards in general are thin. Prices of grain are still on the advance—potatoes are selling at from 1s 6d to 2s 6d per cwt. 2s current. Fat stock are scarce, and high prices are realized for a prime article. No class of men have felt the severities of this spring more acutely than the store farmer, particularly in the absence of artificial food. Where this has been wanting, sheep of every age are in very low condition, and their lambs of a very inferior quality. Good fat lambs, 6 and 7 lbs per qr. are bringing 1*l* each, and meeting with ready demand. Lambs are a fair average crop;

but ewes in general have not been so prolific this season as they have been for several years by-past. Farmers would do well to castrate all their male lambs, both single and twin, which do not indicate signs of fattening for market, so that if they cannot be sold advantageously to the butcher, they can either be retained, or sold for store stock. Whereas, if not castrated, there is no other alternative but to dispose of them to the butcher for whatever they will bring. A soft, mild morning should be chosen for the purpose of castrating, and a little of the spirit of turpentine put into the orifice with a feather, which is the most sovereign preventative of inflammation. Towards the 8th or 10th of next month, if the weather be genial and warm, rams, wedders, yeald ewes, and hoggets, may be washed, and shorn about eight days after. Wool is expected to maintain, if not exceed, last year's prices. We had a few days during the month pretty favourable for vegetation, but during the last eight days it has been comparatively inert, so that store sheep in general are still deriving but a very scanty subsistence. Tuesday the 26th was very tempestuous throughout the day; we experienced a considerable number of very fierce, sweeping showers of hail and rain, by which the ground was very much saturated, but the very high wind that prevailed next day, unaccompanied with rain, rendered the lighter class of soils in excellent condition for the reception of the seed. The 28th and 29th were also very favourable for agricultural operations in general; although we had several very bitter showers of hail, they were of short duration. To-day the distant hills are covered with snow, but it promises to be favourable for sowing. Pasture fields are entirely stripped of the green verdure which partially characterised them ten days ago. They have again resumed a withered, brown, January-like appearance. Vegetation almost inert, the air ungenial, and little appearance of any sudden change.—*April 30th.*

## AGRICULTURAL INTELLIGENCE, FAIRS, &c.

**HEREFORD FAIR.**—The supply of stock was not large, but about the average at our May Fairs. For fat beasts the demand was tolerably brisk, at the prices obtained at our Candlemas Fair; but stores moved off heavily, the necessary consequence of the scarcity of keep. There were more sheep and lambs penned than were expected. At the late neighbouring fairs sheep had receded a little, and on Thursday, they were sold at a reduced value, certainly not equal to the prices obtained within several months. The supply of pigs was small, hardly up to the demand; prices were therefore firm. In the horse fair the number was very large; and a great deal of business was done. Heavy draught horses sold readily, at comparatively high prices, and roadsters both for the saddle and harness, were bought freely at a good value. Useful animals of every description were in request. The following are the prices of stock:—Cattle, 5*l* to 6*l*; calves, 6*l* to 6½*l*; sheep, 6*l* to 6½*l* shorn; lambs, 7*l* to 8*l*.

**EXETER FAIR** was thinly attended. The show of fat bullocks, whether of oxen or heifers, has been small, nor has there been any thing like the anticipated eagerness to purchase; indeed, to buy there has been nothing that at all wore the character of competition. Plough oxen sold at from 30*l*. to 32*l*., and plough steers at from 22*l*. to 26*l*. per pair; bullocks that it may be estimated will graze 30 score in six weeks, have realized 12*l*. a-piece; while articles less forward,

and good barreners, have obtained a price answering to 6*s*. per score.

**BALLINASLOE FAIR.**—The May fair of Ballinasloe presented a large show of live stock of various descriptions. There was a good attendance of buyers, and a brisk demand, especially for store cattle, few or none of which remained unsold at an early hour of the day. Hoggets, store wedders, and well fleeced ewes were also in request, but the supply of sheep in general was, comparatively speaking, scanty. The horse fair was rather thinly attended, but there were some beautiful animals exhibited on the green, which brought very fair prices—an inferior description of horses were in no demand, except strong farming draughts, which, in some instances, brought from 12*l* to 15*l*. The following are the rates at which farming stock sold during the day, and which we give from personal observation:—Prime fat cattle, 13*l*., 14*l* 10*s*., 15*l* 15*s*., and 16*l* 8*s*.; and superior stall fed, 20 guineas; store cows from 6*l* to 8*l*., and large sized ditto up to 11*l*.; milch cows (general run) from 4*l* 10*s* to 7*l* 10*s*.; well bred ditto from 8*l* 10*s* to 10 guineas; springers from 4*l* 10*s* to 9*l*.; Durham in calf, 20 guineas to 25*l*.; two year old heifers, 3*l* 15*s* to 6*l*.; yearlings, 2*l* to 3*l*.; fat wedders from 50*s* to 3*l*.; store ditto from 33*s* to 40*s*.; ewes, 26*s* to 29*s*.; hoggets from 32*s* to 40*s*., and some 43*s* 6*d*.; lambs 15*s* to 1*l*.

**HEMEL HEMPSTEAD SHEEP FAIR** was well

supplied with stock, which fetched very high prices; some tegs were sold as high as 49s. There was a tolerable supply of cows, but few horses, and not much business done.

**MUIR OF ORD MARKET.**—The show of cattle was great. Mr. Sheriff, Barnyards, exhibited a lot of superior three-year-old stots, for which he refused 11l per head, and they left the market unsold; another lot, for which he refused ten guineas, also left the market unsold; he, however, sold three superior animals, three-year-olds, to Mr. Ritchie, cattle-dealer, for 13l each. Another lot of Caithness cattle were shown by Mr. Henderson, cattle-dealer, and was bought by Mr. Baxter of Arabella, for the purpose of feeding for the London market, at 9l, 12s 6d each. Several lots of smaller animals according to quality and age varied in price from 1l 10s to 5l. Very few cattle fit for the butcher were shown—consequently those brought forward sold at high prices; stot beef from 45s to 47s 6d sinking offals. A lot of fine Cheviot ewes, with their lambs, from Fingask, were sold at 35s each. There were no horses on the market.

**TO DAIRY FARMERS.**—On Tuesday week a meeting of farmers was held at Withington, near Uttoxeter, Staffordshire, convened by William Blurton, Esq., of Field Hall, for the purpose of exhibiting and explaining an invention of his, for milking cows. Mr. Blurton is already known as the author of several useful inventions connected with farming and dairying pursuits, for one of which, "The Swing Cheese Frame" he received a medal from the Society of Arts. On the present occasion a numerous and highly respectable party, from various districts of the county, and even from Shropshire and Derbyshire attended. After a substantial dinner at the Saddler's Arms, Mr. Blurton presiding at one table, and Mr. Hamp, of Walton-upon-Treat at the other. Mr. Blurton exhibited the "Milking Syphon," for which he has obtained a patent. It is a small metal tube, with a syphon at the lower end, and on its introduction into the teats of the cow, the milk flows freely out of the elder, without any manual labour. Mr. Blurton expressed himself confidently that, after a trial, most dairy farmers would prefer its use to the present method of milking by hand. Two objections which had occurred to the minds of several, that the cows might be injured by the use of the syphon, and that its introduction might occasion a constant discharge of milk, Mr. Blurton met by saying that experience had proved them to be groundless. Mr. Ritchie, a veterinary surgeon present, gave it as his decided opinion that cows would not be injured by the use of the syphon. Mr. Blurton's cow-man was called into the room, and any gentleman was allowed to interrogate him. He answered many questions, and said that he could milk sixteen or eighteen cows with the syphons, and would much rather milk sixteen with them than six without them. Several cows were afterwards milked in the yard with the syphons, and every one appeared astonished with the easy manner in which the milk was extracted from the cows by this new process. In consequence of being disappointed by the manufacturer, Mr. Blurton was unable to supply all the company with syphons. We do not say that every objection, or every degree of prejudice, was removed by the exhibition of the invention in actual operation; but it will now have a fair and extensive trial.

**IMPORTANT TO FARMERS.**—We have been informed by a very intelligent and highly respectable practical farmer in the neighbourhood of Haddington, that in the course of his experience, he has ascertained, beyond a doubt, that in growing potatoes a great advantage may be derived from simply plucking off the bloom from the *shaw* or stem, by which means the produce is much increased, in consequence, we presume, of the nourishment necessary for ripening the heavy crop of seed apples being, by this simple process, thrown back to supply the root. The individual, whose authority we quote, has, for many years past been an extensive potato grower, and he regularly adopts that method, by which the crop is increased at least 14 per cent; and as the operation can be done at a trifling expense, it is

certainly worthy of some consideration, especially as the farmer can so easily satisfy himself on the point in question. The same individual has made several other successful experiments in agriculture, an essay on which he intends shortly to lay before the Highland Society of Scotland.—*Edinburgh Journal*.

**SEED POTATOES.**—We are sorry to learn that symptoms are again observable this season of some mysterious defect in seed potatoes. A gentleman in the vicinity received a supply lately from the high lands south of the town. On being brought home they were examined by some of the servants, who expressed doubts of their soundness. The gentleman, however, having always got good potatoes from the same farm, resolved on giving them a trial, and several days ago planted about two acres. Having occasion subsequently to inspect a few cut potatoes that had been left, he found not only no appearance of sprouting, usually shown at this season, but found them in a positive decay. This induced him to examine some of those planted, when he found them in the same rotten state, with no appearance of vegetation, and he has it in contemplation to plant anew. The kind is what are known here by the name of Rough Reds, a kind usually valued somewhat highly. A quantity that he got at the same time and place called Smooth Reds, have all the appearance of freshness. Farmers would do well to pay good attention to the potatoes they intend to plant, as, independent of the price, the loss of time and labour is to them a very serious affair.—*Paisley Advertiser*.

**FLAXSEED.**—Last week there was a considerable re-action in the flaxseed market, owing to large importations from Glasgow and Liverpool. Prices declined greatly, though the demand still continued brisk. The breadth sown this season will be immense. It is calculated that from this district alone there will be the produce of from 30,000 to 40,000 acres, or from 7,500 to 10,000 tons, to be exported.—*Derby Journal*.

**MANGEL WURZEL LEAVES.**—At a dinner which took place a week since, at Downham Market, to celebrate Mr. Coke's birth-day, Mr. Milnes, Honorary Secretary to the West Norfolk Association, stated that he had successfully tried the use of hay cut with Mangel Wurzel leaves steamed for feeding bullocks, and strongly recommended the same to his brother farmers.

**GIGANTIC EGGS.**—A hen of the Crammer breed, belonging to Mr. Charles Dean, cordwainer, Carrington, has this week laid two eggs, weighing 6½ oz. The largest measures round lengthwise 7¾ inches, and in girth 6 inches. The girth of the other is about the same, but it is much shorter. One of them may be seen in the window at our office.—*Nottingham Times*.

The Park farm at Dunmow, containing about 70 acres of land, was sold by auction by Mr. Franklin, on Tuesday, for 5,000l.

**CHIPPENHAM WOOL MARKET, 1836-7.**—The Committee appointed to make the necessary regulations for establishing this market, have fixed the following days in each year as the most eligible for holding the market:—First Friday in July; first Friday in August; first Friday in September; first Friday in November; first Friday in February; first Friday in April. As an encouragement to dealers and farmers to attend the market, Joseph Neeld, Esq., M. P. has placed in the hands of the Committee the sum of One Hundred Pounds, to be given in such suitable premiums as they may think fit. The committee have thus apportioned the premiums:—To the purchaser of the greatest quantity of wool on the days aforesaid, a premium in plate, value 25l.—To the purchaser of the second greatest quantity of wool on the days aforesaid, a premium in plate, value 20l.—To the purchaser of the third greatest quantity of wool on the days aforesaid, a premium in plate, value 15l.—To the farmer who shall sell on the days aforesaid, the greatest quantity in weight of Southdown wool, of his own growth of the present year, a premium in plate, value 10l.—To the farmer who shall sell on the days aforesaid, the greatest quantity in weight of long or mixed wools, of his own growth of the present year, a premium in

plate, value 10*l*.—To the farmer who shall sell on the days aforesaid, the second greatest quantity in weight of any sort, of his own growth of the present year, a premium in plate, value 8*l*.—To the farmer who shall sell on the days aforesaid, the third greatest quantity in weight of any sort, of his own growth of the present year, a premium in plate, value 7*l*.—To the farmer who shall sell on the days aforesaid, the fourth greatest quantity in weight of any sort, of his own growth of the present year, a premium in plate, value 5*l*.—The bulk, or a sample not less than a pack, to be pitched in the market. Spacious sheds are about to be erected by Mr. Neeld at the back of the New Hall, for the accommodation of the dealers and farmers attending the Wool market, in which the wool may be pitched and stowed.

### MONTHLY REPORT OF THE WOOLLEN TRADE.

LEEDS, MAY 1.—The opinion expressed in our Report for March, that coarse woollens were then as high in price as the buyers could be induced to go, has been verified by the transactions of the month of April. Low goods have, it is true, been readily sold, but an advance of price, corresponding to the advance of cost arising from the rise of the raw material, has not been obtained. Profits consequently have been very small. Had a corresponding advance been pertinaciously demanded, the amount of business must have been greatly curtailed; as it is, we are indebted to the increased demand for North America for the principal sales of low cloths,—the home buyers and especially those from Ireland, have shown great caution in their purchases.

In the finer descriptions of Woollens more business has been done than during the two or three preceding months, but less certainly than the general state of trade throughout the country warranted us to expect. The complaint is general that fine cloths are very heavy of sale. We know of only two solutions of this state of our fine trade. Either the West of England houses are running a successful race with us in goods from 12*s*. to 14*s*. per yard, or the Foreign demand for those qualities has fallen off. Our belief is that both suppositions are to a certain, we hope to a limited, extent, true. Indeed our conviction for some time has been, that if our manufacturers seriously intend to maintain a successful rivalry in middle qualities with the West of England clothiers in the home market, and with the Continental manufacturers in the general markets of the world, they must infuse into their operations more energy than for some years has characterized them. We are persuaded they are losing ground in the race of improvement.

In the wool market there is a trifling alteration. Under 2*s*. 9*d*. or 2*s*. 10*d*. per lb., the quantity is small, the quality very inferior, and the price decidedly too high. Above that price there is still a fair assortment, and at a reasonable price, but it is little in demand.

The influence which this state of the Woollen Trade may have on the price of Foreign Wool at the ensuing clip, is too interesting to be left out of consideration.

We have just stated that the stock of low wools in the market is exceedingly light; the state of the stocks on the Continent may be inferred from the circumstance that, although the tempting price to be obtained here has induced very large exportations to England, the great bulk of the exportation has consisted of wools of inferior and even bad families—a very significant indication that the Continental stock of wools of the kinds most approved in this

market,—lies in small compass. These facts support the opinion, now very current, that German wools will realize an advance at the ensuing fairs on the price of 1835. We give no positive opinion ourselves; not that we are afraid to hazard one, or because we think the expression of an affirmative might have an injurious effect on the markets, but because we conceive that the price is contingent on two circumstances, which we can only imperfectly appreciate, and which mere opinion cannot affect, viz.: the extent of the whole demand of Europe, inclusive of England, on the one hand, and the extent of the whole supply on the other. These will be measured with tolerable accuracy at the great German Wool Fairs, and the price will be higher or lower as the one or the other may be in excess. We draw attention to the subject not to express a confident opinion, but just to remind the clothiers of the necessity of exercising a prudent forecast in their operations, and we will put two plain suppositions before them, and point out what we conceive will be the results of each. Either wool will rise in price—(a fall we consider altogether out of the question)—or it will not. Should it rise, they may calculate on getting their own by goods now manufacturing, or to be manufactured during the ensuing two months; but we doubt if even then they will get a profit. Should it not rise, we have no hesitation in saying, that unless they conduct their operations with extreme caution—in one word, if they fill the Halls with stock, they will find no small portion of their last four months' gains oozing through their fingers before next August.

This is no speculative opinion. The result we predict under the latter supposition will be simply a repetition of what took place in 1834 and 1835. The fact is, that, for some years back, the supply of wool from clip to clip has been so barely equal to the demand, that, just prior to that event in each year, the refuse wools have commanded considerably better prices than the richer parcels sold at first—and as the merchants have always experienced great difficulty in procuring a corresponding advance on the finished cloth,—they have met the dilemma, partly by pressing on the clothier, and partly by diminishing their own profits. The clothier and the merchant have alike worked for nothing during the last two months of the wool year.

Although our report is already somewhat lengthy, we cannot omit to take some notice of the Woollen Trade, with reference to its general condition—we mean as to soundness, and consequent safety and stability. First, as to profit: There is no question the manufacturers have done well; the staplers and the merchants know that right well; nor need the casual observer to be in any doubt about the matter, although we no longer see our stout Pudsey men riding home after a good market, to the imminent hazard of their own necks, and the lives of his majesty's subjects. They *drive* now, and he is a bad physiognomist who cannot tell by their countenances how they have fared. That the merchants have made a profit, the state of the demand, compared with the stock of goods, is decisive evidence, if, indeed, it were not quite clear, looking to the extensive resources and the prudence of a few houses, which transact the greater half of the trade of Leeds, that those who *can* command a profit have not failed to ask for one:—a profit, too, has plainly been within the reach of houses having less resources, and struggling for a connexion. It is true stocks on hand do not promise a profit; but they are light, and if ordinary prudence be exercised, during the next two or three months, there need be no loss by them, though they

may only nett a small gain. But profit is only made when the cash is counted down on the day of "prompt." We have little fear but that it will be forthcoming. Of the goods sold, a very large quantity has been taken off by the London houses for cash, or short payments; and that they have bought for consumption is evident, from their earnest inquiry for all colours under 11s. or 12s. The direct trade with country retail houses, whether in England or in Ireland, has been done safely; and it is any thing but overstocked—the latter market is notoriously but half supplied. Of the goods shipped, the bulk has been to order, or as *bona fide* sales, and we believe in no former year did a smaller proportion consist of goods on consignment. As a last evidence of soundness in the trade, we may state there is no speculation in land, for mills, &c., (indeed, we know of but one woollen mill in course of erection;) and there has been only a small addition of machinery for some time past. If, after all, there actually is overtrading, we confess we either do not know the symptoms of that commercial malady, or the disease itself has assumed a new form.

We are aware that prices are rising; and we are not unmindful of the rule that a general rise of price indicates an excess of money. We, however, greatly doubt whether the rise of wool since July last has anything to do with excessive issues. The price of wool was higher in 1833 and 4 than now, and it only fell about October in the latter year, after a protracted struggle. It is now approximating to the former level; but the facts we have stated, show, we think conclusively, that it is doing so from the pressure of a legitimate demand. We have, in more than one of our Reports, expressed our opinion that the tendency of price in wool is upwards, and that for some time to come; and as our reasons for that opinion lie in a small space, we will state them. Immense improvements have taken place in manufacturing implements and processes during the last fifteen or twenty years. The cost of manufacturing, apart from the cost of the raw material, has in consequence been greatly reduced, involving, also, a reduction of the price of the wrought fabric. The reduced price has induced a larger consumption. The effect of this has been a constantly augmenting demand for raw material—the evidence of which is palpable on the very face of our imports. But so far from there being any increased facility for producing that raw material, corresponding to the increased cheapness and facility for working it up, the very circumstance of an additional quantity being required, simultaneously with an increased demand for all kinds of agricultural produce, has tended to raise

the price,—so that the very improvements which cheapen the wrought fabric, raise the price of the raw material of which it is composed. We hold this to be the simple solution of the rise in price of all kinds of raw materials, used for wrought fabric, during the last three or four years. Wool, perhaps, more than any other fibrous material, has been affected by it, because the growth of it is limited by some special circumstance. It cannot be grown without immediate reference to the price of mutton, and the general routine of modern husbandry. No price for wool will induce the farmer greatly to increase his flocks, or to derange his regular system of stocking and cultivating. It is true that in New South Wales, the carcase is of little value, comparatively, but the wool grower cannot keep up the purity of his flock, and the character of his wool, without great care and expense; and these impose a much narrower limit on the extent of wool growing in Australia than is usually supposed. Combining all these circumstances, we think the advance in the price of wool is accounted for, without supposing that there is undue speculation in the raw material, or over-production by the manufacturer.

We would be understood, however, to advance no opinion as to the cause of the general rise of prices already alluded to. We are yet free to admit, that the facilities for obtaining money are greater—that in one word, the competition is rather amongst bankers for customers, than amongst customers for bankers; and that in the proportion of the issues of the new bands, to the amount of their paid up capital, there is perhaps too bold a reliance on their ultimate convertibility and solvency; but we must at the same time express our belief that the customers of those banks have drawn upon their liberality with a prudent and careful regard to the state of the ultimate demand for goods, and have avoided on the one hand large investments in raw materials and finished goods, and on the other have neither forced credit nor given it improperly. We hope, that in a short time, the check on undue issues of money, which is now too much in the hands of the borrowers, will be resumed by those with whom it ought to rest—the lenders. We may not come at this desirable result without some little disturbance of credit; but whilst we acknowledge that the proper and efficient mode is by the resumption of a more guarded system of credit by the bankers, we feel quite sure a great deal is within the power of the trading body at large. If there really be a tendency to an excess of money, that is just the reason why every prudent tradesman should conduct his business with redoubled circumspection.

## REVIEW OF THE CORN TRADE

DURING THE MONTH OF MAY.

The first week of the past month maintained the same ungenial character, which had prevailed during March and April, and the "ethereal mildness" with which poets were wont to celebrate the advent of May, assumed the garb of winter in its roughest mood; and serious apprehensions were being entertained for the fate of the young wheats, and Spring corn; on the 7th, sunshine, however, again obtained the ascendancy, and the wind veer-

ing to the southward, the days became warm and glowing, and all Nature exhibited the vivifying influence which the combined powers of heat and moisture are capable of producing; yet the growth of wheat and Summer corn has not been as rapid as it would have been, had the nights been more favourable; this very period when vegetation makes the greatest progress, a chilly, cold, and often frosty temperature has been prevalent. To-

wards the middle of the month, agriculturists from all parts of the United Kingdom were complaining of the want of rain, and the sudden transition from wet to dry weather, having caked or encrusted the surface of the land, checking the germination of the seed, and the Spring corn which had already reared its head, required moisture to invigorate its growth; a few refreshing but partial showers were then experienced, but succeeded by cool days and nipping nights, when the atmosphere again more mild and beneficial to the "tender blades," and it is to be hoped that fine bright weather by day, and mildness of temperature at night, co-operating with the humidity with which the earth has been saturated, may communicate a greater vegetative impulse to the forthcoming crops, than is at present anticipated. It is however, confidently reported, by well-informed individuals, from different localities, that the young wheat plant on cold, strong, and low lands is, in many instances, too much deteriorated, ever to recover its primitive powers of vegetation; that the wheat has become *prick-eared* and *spindly*, assuming a yellowish, and in some cases a bluish tint, and the yield in consequence must fall short, compared with the growth on lighter soils, and more favoured situations, where the plant has tillered out well, becoming curly and strong, and wearing a dark and healthy green aspect, the index of luxuriance. A question would therefore seem to arise, worthy the consideration of the speculator as well as the cultivator, how far it might be deemed advisable the retention of their stocks, and how far the future prices are likely to be affected by a crop below an average return per acre, taking into the calculation that the securing of the grain is likely to be protracted to a later period than usual—that less land is under the cultivation of wheat, not only in England, but also in Scotland, and that in Ireland the diminution in the breadth sown is much greater than in either country, being estimated, though we believe vaguely, at even one-third the quantity of previous seasons; but reducing this amount half, and making it one-sixth, and adding the rough calculation which is current, that a deficiency of growth exists in Scotland to the extent of one-sixth, and in England of one-sixth to one-seventh, at the same time, that the consumption will continue as lavish as has latterly been experienced, which it may be inferred will take place, provided the same life and animation continue in the trades of the manufacturing districts; not omitting the increased ratio of the population since 1831, which then exhibited for the ten previous years, an augmentation of  $15\frac{1}{2}$  per cent., and would therefore for the five years nearly elapsed since the census was made, give an addition of upwards of three millions of human beings; taking all these facts into account, an inference may be deduced, that the currencies are likely materially to advance, and that the prospective character of the markets presents to the agriculturists not only a less gloomy, but a much more cheering aspect, than has been afforded them for the later consecutive years. As far as any opinion can be formed of barley and oats, from the early appearances of the plants, a favourable prospect is offered to the farmer, particularly as regards the former grain, but both are in need of rain. Beans and peas look strong and healthy, and in compari-

son, promise better at present, than any other crop.—The parliamentary proceedings during the month have only comprised two subjects materially affecting the agricultural interests; one calling in question the present system of forming joint-stock banks, the dangers emanating from which, and of an over-extended credit, were clearly set forth in an able speech from Mr. Clay, member for the Tower Hamlets, who stated, that the dangers to which our present system was exposed, arose mainly from permitting an unlimited number of persons to combine for the purpose of carrying on the trade of banking: he said—"you confer on them an enormous power of creating an extensive business, by rendering all the shareholders individually responsible; you afford the most dangerous facility in obtaining credit, whilst you take not the smallest precaution that such banks shall possess capital commensurate with the engagements into which the powers and facilities you bestow, will tempt them to enter. He could conceive no state more dangerous for any commercial community, than one in which a system composed of such elements should be in full activity, in which the country should be covered with joint-stock banking companies, enabled to extend their operations through the thousand channels open to them by means of their shareholders, and feeling no necessity to limit the accommodation they afford from want of funds, the place of which, for a certain length of time at least, their credit would supply. He could conceive no state more directly tending to produce that excitement, that over-trading, that apparent prosperity so pleasant in its advent—so bitter in its consequences; and that if there was one case in which legislative interference with the intercourse of individuals could be justified equally by reasoning and experience, beyond all doubt, it would be an interference to obviate the dangers which an abuse of the powers and facilities of joint-stock banking inevitably tends to produce, and the means he suggested to obviate the evil were, *limited liability—paid up capital—and perfect publicity*. Ministers coincided in the views of the Honourable Member, and a Committee was accordingly appointed "to inquire into the operation of the act of the 7th Geo. IV, c. 46, permitting the establishment of Joint-Stock Banks, and whether it be expedient to make any, and what alteration in the provisions of that Act." The other subject has been the progress made in the Tithe Bill; some material clauses having undergone discussion and amendments; but it appears doubtful if the measure will be passed into a law the present Session. The Agricultural Committee of the House of Commons is still sitting, and the evidence printed in the second report is fraught with much interest, as it fully elucidates the principles often urged in this Magazine, that supply and demand are the principal agents which have ever operated in depressing or raising the prices of the markets. The evidence also of the witnesses examined, as to the expediency of permitting foreign wheat in bond to be ground into flour for export, seems tending favourably towards the adoption of a measure, which would confer considerable benefit on one class of the community without inflicting injury or injustice, directly or indirectly, on any other. The

Agricultural Committee in the House of Lords closed its labours the third week in April, but my Lord Wynford has not yet made his report; the ardent zeal however exhibited by his Lordship at the "Central Agricultural Association" as well as by other peers composing the committee in behalf of the Agricultural interest, would have induced the hope that not a moment would have been lost in submitting to the House the result of their inquiries and endeavouring to relieve that distress, which they "many times and oft," have so eloquently depicted, as being in the power of Parliament to mitigate. The Committee, however, having it is understood adopted the motto, "*ex nihilo nihil fit*," the agriculturists can readily conceive the result of the investigation, and the benefits likely to accrue to them.

The markets throughout May, like the barometer, have fluctuated according to the weather. In the early part of the month, short supplies, and prevalence of cold and wet, induced holders to demand an advance of 1s to 2s, which in some instances was acceded to; sunshine, however, appearing, checked any further enhancement, and the currencies receded fully 1s per qr; these reduced rates were barely maintained until towards the close of the month, when the limited extent of the arrivals and the millers being short in stock, causing them to evince a disposition to purchase, the finer qualities of wheat, particularly of red, of which the show was very partial, obtained an advance of 1s per qr, making the top quotations higher to that amount than they were at the close of April though no improvement can be noted in the secondary and inferior descriptions; and the character of the trade remaining totally dependent on the weather and supplies, which during the month have been 7,500 qrs. less than April.

Though orders are still being executed in the Baltic and Elbe for the better qualities of wheat for English account, yet in many instances the limits have been 1s to 2s per qr less than the prevailing currencies at the different foreign ports, and the extent of the purchases has therefore not been large. The actual business transacting in bonded wheat on the market has been confined to a few purchases for the Cape of Good Hope, Mauritius, Canada, and United States of America; holders demanding fully the currencies realized last month. Hamburg wheat lately arrived has been held at 30s; and good Rostock qualities have obtained 29s; Danzig is noted at 32s to 35s.

The slight fluctuation which wheat has sustained in value has enabled the town millers to maintain the top quotations of flour, though sales have been made 2s to 3s per quarter below the nominal rates; while ship flour after receding 2s per sack rallied and regained 1s; remaining 1s per sack lower than at the commencement of the month; Suffolk and Norfolk being noted at 34s to 35s. The warm weather has operated on the sale of the article, as factors and millers are anxious to quit their stocks, and the bakers on the other hand not inclined to purchase beyond their immediate wants. Bonded flour has met a steady demand for export, and the fresh arrivals from the Baltic have been readily taken off at 24s to 25s per barrel for export to the West Indies, Cape of Good Hope and Mauritius;

to the former destinations the shipments have amounted to about 8,000 cwts, to the Cape 2,000 cwts, and Mauritius the same quantity.

The averages have continued to exhibit the advance, which had been previously experienced in the various articles. The aggregate averages of wheat has risen from 46s 1d to 48s 5d, making the duty 2s per quarter lower; but the London average has receded from 52s to 51s 2d. Barley has advanced from 30s 7d to 32s 6d; showing a difference in the duty of 3s per quarter; on oats the difference in duty is 1s 6d per quarter; rye, 1s 6d; beans, 1s 3d; and peas, 4s 3d: on the latter article the duty is likely eventually to recede to 9s 6d.

The arrivals of barley have considerably fallen off, and are upwards of 23,000 quarters less than the previous month. For nearly the first fortnight in May the limited extent of the supplies, caused prices of all descriptions to advance 1s per quarter; but finer weather setting in prevented maltsters from purchasing, and the maling season having thus sooner than usual been brought towards a conclusion, the trade in the finer descriptions has latterly ruled extremely dull at a decline of fully 2s per quarter, and the currencies quite nominal at this reduction, while distilling and grinding parcels have maintained their improvement; fine stout distilling qualities being worth 34s. The consumption of barley has been extremely large both for maling, distilling and meal, and accounts from the country seem to concur in the fact that the stocks are running excessively short; so much so, that many speculators are anticipating that a foreign import will be required before the next harvest is secured; in consequence of which the few parcels on hand, which are only of moderately good quality, have advanced fully 2s; no parcels being obtainable under 20s, and orders have been transmitted abroad, purchases having been made at Hamburg of Saale quality at 19s, and in Mecklenburg and Holstein at 17s to 17s 6d.

The stock of malt in the hands of the maltsters is not estimated as large, and the arrivals coastways have been 8,000 qrs less than during April. The trade has been steady, prices of good qualities having suffered no depreciation in value, but secondary and inferior sorts have been bought on rather lower terms.

In the supply of oats a deficiency has been exhibited as compared with April of 9,000 qrs; though from the English coast the receipts have increased 3,000 qrs, but from Scotland there is a falling off of 4,000 qrs, and from Ireland 8,000 qrs. Dealers and consumers having refrained from purchasing in anticipation of larger arrivals, and becoming in consequence bare of stock, have been obliged to come into the market at improving prices, and a good extent of business has been transacted at an enhancement of 1s 6d to 2s per qr, though with increased importations these prices will not be maintained; the improvement has been general in English and Irish samples, though in Scotch it has been difficult to realize more than 1s per qr on the finer descriptions, but the secondary and inferior coming to hand in better condition have risen 1s to 2s per qr. Bonded oats, owing to the demand for export to America and the West Indies, and the unfavourable weather

for the crops, have advanced fully 1s per qr, Danish having realized 15s per qr; Archangel have sold at 13s 6d, and Dutch brew at 17s to 18s. A few orders are being executed in Friesland, Holland, Jutland, Schleswick, Sweden, &c., for English account at from 10s to 14s per qr as in quality.

Beans have been in moderate demand, and prices steadily maintained until towards the close of the month, when secondary qualities might have been purchased on rather lower terms. Large orders are being executed abroad for shipment to this country, but the arrivals into the London port during the month have not as yet exceeded 2,000 qrs; parcels in bond are held at 28s to 30s; as, however, the crop is good, and the home supplies not yet exhausted, the speculative prospect is not particularly promising.

The supplies of peas have amounted to only half the quantity of the foregoing month; and, though the demand for boiling qualities has not been animated, yet prices have advanced 1s per qr, while grey and maple having met more inquiry must be noted 1s to 2s higher. The arrival of foreign peas has exceeded 12,000 qrs, and additional supplies are on their voyage or ready for shipment; so that on the duty attaining its minimum range, which is expected to be 9s 6d, the market is likely to be well stocked; prices at present demanded in bond are 26s to 30s per qr.

During the month of May, the following quantities of grain and flour have arrived in the port of London:—

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats. qrs.
English .....	27,069	13,219	29,995	20,803
Scotch .....	157	2,125	522	10,416
Irish .....	...	107	359	54,357
<b>Total in May.</b>	<b>27,217</b>	<b>15,451</b>	<b>30,876</b>	<b>85,576</b>
<b>Total in April</b>	<b>34,773</b>	<b>38,491</b>	<b>36,448</b>	<b>94,351</b>
<b>Total in March</b>	<b>28,375</b>	<b>27,513</b>	<b>24,674</b>	<b>49,154</b>
<b>Foreign in May</b>	<b>1,150</b>	<b>9</b>	<b>...</b>	<b>1,620</b>
	Beans. qrs.	Peas. qrs.	Linseed. qrs.	Flour. sacks.
English .....	5,022	656	17	41,314
Scotch .....	6	67	...	200
Irish .....	...	...	...	111
<b>Total in May.</b>	<b>5,027</b>	<b>723</b>	<b>17</b>	<b>41,625</b>
<b>Total in April</b>	<b>4,943</b>	<b>1,423</b>	<b>212</b>	<b>37,461</b>
<b>Total in March</b>	<b>5,318</b>	<b>2,945</b>	<b>261</b>	<b>27,707</b>
<b>Foreign in May</b>	<b>1,472</b>	<b>1,903</b>	<b>12,544</b>	<b>brls. 12,520</b>

In CANADA, though frost still continued at night, yet the thaw was making during the day great advances towards the opening of the navigation. The trade was dull, Lower Canada red being noted at 5s to 5s 6d per minot; fine flour, 31s 3d, superfine, 32s 6d. At Kingston wheat was worth 3s 6d to 4s, and flour 22s 6d per barrel.

From NEW SOUTH WALES no later advices had been received than those of the 7th of December, when wheat was selling at an average of 8s 6d per bushel; the weather was favourable for the crops, and though a heavy hail storm had been experienced at Sydney and its environs, yet it had not extended into the country, and the grain therefore had escaped its destructive power: it may be added, that the improvement in the growth of grain, and the considerable arrivals of wheat from

Van Diemen's Land and the East Indies, 2,000 qrs having been lately received from Calcutta, were the causes of the material decline in the prices. At HOBART-TOWN on the 22d of December wheat was noted at 7s to 7s 6d per bushel, and the harvest promised well, owing to the refreshing rains. Barley was rather scarce, and worth 5s 6d to 6s per bushel, and some English had realized 6s to 7s. At LAUNCESTON the same favourable reports were made as to the crops, and wheat varied from 7s 6d to 8s 6d; considerable shipments of the article had been made to Sydney from hence, as well as Hobart-Town.

The weather in FRANCE has been cold and unfavourable for the progress of vegetation. In the northern departments, in Normandy, in the western districts, and also in the southern, in Burgundy, in the eastern portions of the kingdom, in Champagne, &c., the prices of wheat have more or less continued to advance, owing partly to the extensive demand for the consumption, and in part to the unsatisfactory appearances of the crops in many portions of the country; in Picardy and Brie, from whence Paris draws a large proportion of its supplies, the farmers also complain of their prospects, yet not to the extent which is done in the other localities; in Beauce the promises are less unfavourable. At Marseille, Lyon, &c., the warehouses are reported as exhausted, and the return of the new crop does not seem likely to replenish them; harvest it is calculated even in the warmer departments will be at least fifteen days later than usual. Oats are backward, owing to the late period of their being sown, and the chilly character of the weather they have since experienced; but the progress of this grain is, however, rapid when the temperature is congenial to its growth. At Paris, though the prices are firm, yet speculative feeling is not yet influenced by the enhanced currencies of the country markets. At the ports of Cherbourg, St. Malo, Brest, Lorient, &c., the duties on the admission of foreign wheat in British vessels have declined to 10s 7d per qr, and if in French ships 7s 7d. In the neighbourhood of the Rhine the weather had become extremely warm, but had been suddenly succeeded by cold, which had checked the progress of vegetation. In the northern divisions of the kingdom the sowing of oats had not been completed in the beginning of May.

In ITALY the markets are extremely firm, and in some instances advancing, owing to the prevalence of cold rainy weather. At Naples Barletta wheat had rallied, and was held at 25s and 25s 6d, deliverable at the end of the month; the article being recommended as worthy speculation, as it is to be bought deliverable the end of August, at 28s 6d, the money to be paid on delivery; the seller retaining it in warehouse until the end of December free of charge, and at his own risk. Romanelli wheat was noted as high as 34s to 34s 6d. The weather was unfavourable, the Spring not having commenced, even on the second of May; wintry winds continuing, and Vesuvius still covered with snow. In SICILY at this season, mild genial weather generally prevails, but at the commencement of the month, the country was visited with heavy gales of wind, thunder, snow,



and inundations. At TRIESTE wheat and Indian corn had experienced rather better demand; the former article is noted at 25s 7d to 31s 4d, and the latter 18s 8d to 22s 2d.

In the BLACK SEA, the current prices remained steady at 22s 11d to 23s 7d, for the best qualities of soft Odessa wheat, and 22s 4d to 22s 11d for the best hard descriptions, but purchases after the arrival of the Spring supplies at Odessa, was being contracted for at much lower rates, say new samples at 17s 8d to 18s per qr.

In PORTUGAL the advanced prices of wheat, and especially Indian corn at Oporto, had caused some dissatisfaction to be expressed by the populace, and the municipal authorities had ordered for the consumption, the admission of the Indian corn in bond, as well as the stock of wheat in the warehouses, which was however very limited. At LISBON also, the maize in bond had been liberated, but it was uncertain as to the future intentions of the government in regard to wheat. The weather continued extremely dry.

At St. PETERSBURG the corn trade remained nominally unaltered; but linseed was selling for July and August delivery at 44s, and fine Morschansky 46s 8d per qr. At RIGA, wheat was quoted at 23s to 26s 10d for the best Courland samples. Some Russian oats were offering, weighing 74 to 75lbs, and held at 10s 8d. Crushing linseed varied in price, according to quality, from 42s 10d to 45s 9d; new sowing ditto, 26s 5d per barrel. At DANZIG the continued dullness in the trade in England had had little or no additional effect on the markets; really fine coloured high-mixed wheat of 61lbs had realized 30s in granary; good high-mixed of 60½lbs 29s 4d; fine white, 31s 6d. The old Volhynian wheats ranked among the best qualities received, and in a short time will be in excellent condition for shipment; indeed the Polish wheats generally prove of good quality, and when dried and exposed to the weather will make a good sample for the English market. The waters of the Vistula are represented as being so low, that many parcels bought on contract will be much later in their delivery than was expected; the supplies, however, were coming freely from the river Bugg, in consequence of the corn being laden in flat bottomed barges, which only draw a few inches water. At KONIGSBERG purchases continued to be made for England at 29s to 31s 6d per qr. At SLETTIN prices remained steady at 26s for wheat; but barley was held on rather higher terms. In MECKLENBURG wheats of best quality were not to be obtained under 25s 6d, and the finer samples came sparingly to market; barley met attention for English account, and was noted higher, say 17s to 17s 6d. Oats, 13s to 14s. In HOLSTEIN, wheat was still held at 24s 6d; but barley had been sought after for shipment to this country, and had advanced in price; best qualities were held at 17s to 18s. New rapeseed had been contracted for on French account deliverable at Hamburg, at 31½s taking the average produce of the season. At HAMBURG wheat was rather lower, but the best qualities of Marks weighing 62lb to 63lbs, were not to be obtained under 27s; barley had advanced in price, the article, exclusive of the purchases made for Portugal, being in demand for

English account. Saale samples, weighing 49lbs to 50lbs, had obtained 19s. Mecklenburg of 52lbs to 53lbs, 19s 6d to 19s 9d, and a sale had been made deliverable at Neustadt at 17s 6d, and the better descriptions were becoming scarce. Oats had been also purchased for England, a parcel weighing 37lbs, but rather stale, fetched 10s 3d to 10s 6d; Schleswick quality of 35lbs, and from the west coast of Holstein, brought 10s 3d to 11s; Mecklenburg parcels of 35lbs to 38lbs were noted as high as 13s to 14s. From Jeverland offers were making of 38lbs to 39lbs, at 12s to 12s 6d. From BREMEN considerable shipments of wheat had been made to the United States and Brunswick qualities had obtained 28s 6d per qr; beans, owing to the demand for England, had advanced to 21s to 22s. At ROTTERDAM wheat had become 6d to 8d dearer, owing to the article meeting speculative attention with the intent rather of shipping to the South of France and the Mediterranean, than to England. Red Rhine samples were held at 27s to 27s 10d; Kubanka of 62lbs to 63lbs, 27s 8d to 28s 2d. Thick oats, 15s to 16s 7d; feed, 13s to 13s 4d per qr.

CURRENCY PER IMPERIAL MEASURE.

	BRITISH.		MAY 1.		JUNE 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk.....	38	to 48	38	to 49	38	to 49
White.....	42	55	42	56	42	56
Norfolk, Lincolnshire and Yorkshire.....	37	46	37	47	37	47
White, do. do.....	40	52	40	53	40	53
West Country Red.....	36	44	36	45	36	45
White, ditto.....	38	50	38	51	38	51
Northumberland and Berwickshire Red.....	35	42	35	40	35	40
White, ditto.....	37	48	37	49	37	49
Irish Red.....	—	—	—	—	—	—
Ditto White.....	—	—	—	—	—	—
Barley, Malting, new.....	32	35	32	35	32	35
Chevalier, new.....	35	38	35	38	35	38
Distilling.....	30	33	32	34	32	34
Grinding.....	26	30	27	31	27	31
Irish.....	24	29	25	30	25	30
Malt, Brown.....	44	52	44	52	44	52
Ditto, Chevalier.....	60	61	60	64	60	64
Ditto, Norfolk and Suffolk Pale.....	50	60	50	60	50	60
Ditto Ware.....	60	64	60	64	60	64
Peas, Hog and Grey.....	32	34	33	35	33	35
Maple.....	32	31	31	36	31	36
White Boilers.....	35	44	36	45	36	45
Beans, small.....	38	46	40	46	40	46
Harrow.....	34	44	38	44	38	44
Ticks.....	33	42	35	42	35	42
Mazagan.....	32	40	34	40	34	40
Oats, ENGLISH feed.....	21	23	23	23	23	23
Short small.....	22	25	25	27	25	27
Poland.....	23	26	23	27	23	27
Scotch, Common.....	21	26	24	26	24	26
Berwick, &c.....	22	27	24	27	24	27
Potatoes, &c.....	24	28	25	28	25	28
Irish, Feed.....	18s 0d to 21s 0d	22s 0d to 23s 6d	22s 0d to 23s 6d	22s 0d to 23s 6d	22s 0d to 23s 6d	22s 0d to 23s 6d
Ditto Potatoe.....	22s 0d 24s 0d	24s 0d 26s 0d	24s 0d 26s 0d	24s 0d 26s 0d	24s 0d 26s 0d	24s 0d 26s 0d
Ditto Black.....	20s 6d 22s 0d	22s 0d 24s 0d	22s 0d 24s 0d	22s 0d 24s 0d	22s 0d 24s 0d	22s 0d 24s 0d

PRICES OF FLOUR,  
Per Sack of 280 lbs.

	MAY 1.		JUNE 1.	
	s.	s.	s.	s.
Town-made.....	40	to 48	40	to 48
Norfolk, Suffolk, Kent, and Essex.....	34	36	34	35
Sussex and Hampshire.....	33	35	33	34
Superfine.....	36	—	35	—
Lincolnshire, Yorkshire, and Stockton.....	32	35	32	34
Northumberland, Berwick, and Scotch.....	32	33	32	33
Irish.....	35	37	34	36
Extra.....	39	—	38	—

STOCK OF GRAIN AND CLOVERSEED IN  
BOND IN THE PORT OF LONDON ON  
THE 5TH MAY.

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Cloversd.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
223,407	66,73	65,831	2,851	3,653	26,336	27,819

Rye, — qr\*

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th May, 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat.	Barley.	Oats.	Rye.
	bush.	qrs.	qrs.	qrs.
Quantity imported ....	3,820	1	1,632	..
Do. entered for home consumption.....	1,301	4	72	..
Do. remaining in warehouse .....	536,164	37,016	218,141	1,484
	Peas.	Beans.	Maize	Flour.
	qrs.	qrs.	qrs.	cwts.
Quantity imported ....	2,882	10,193	..	21,050
Do. entered for consumption.....	358	66	81	2,434
Do. remaining in warehouse .....	10,816	14,939	690	199,557

IMPERIAL AVERAGES.

Week ending	Wheat.	Barley	Oats.	Rye	Beans	Peas
8th April	47 7	31 4	21 9	30 2	35 6	36 1
15th "	48 8	32 1	22 12	29 7	35 7	38 4
22d "	48 16	32 11	22 3	32 4	36 9	37 8
29th "	48 3	32 8	22 2	31 2	36 11	40 7
6th May	47 11	32 8	22 6	32 3	37 6	40 1
13th "	49 3	33 2	23 1	33 4	38 9	40 10
Aggregate average of the six weeks which regulates the duty ..	48 5	32 6	22 4	31 6	36 10	38 11
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London .....	39 8	13 10	13 9	22 9	15 6	12 5
Do. on grain from British possessions out of Europe .....	5 0	2 6	2 6	3 0	3 0	3 0
Foreign Flour, 28s 8d per 196lbs. British Possessions do. 3s per 196 lbs.						

BOROUGH AND SPITALFIELDS MARKETS.

	Per ton.			MAY 1.			JUNE 1.		
	£	s.	d.	£	s.	d.	£	s.	d.
Ware, Scotch reds .....	4	10	5	0	4	0	4	10	4
Marsh Champions ..	4	0	4	10	3	10	4	0	0
Common reds ..	4	0	4	10	3	10	4	0	0
London whites ..	3	15	4	5	3	5	3	15	15
Shaws ..	3	15	4	0	3	5	3	10	0
Middlings, Scotch reds ..	3	15	4	5	3	10	4	0	0
Marsh Champions ..	3	5	3	15	3	0	3	10	0
Common reds ..	3	5	3	15	3	0	3	10	0
London whites ..	2	10	3	10	2	5	3	5	5
Shaws ..	2	0	2	15	1	15	2	15	15

PRICES OF HOPS IN THE BOROUGH.

	MAY 1.			JUNE 1.		
	£	s.	d.	£	s.	d.
East Kent, in Pockets.....	6	5	7	5	0	5
Do. in Bags.....	0	0	0	5	0	6
Mid-Kent, in Pockets.....	5	0	5	5	0	5
Do. in Bags.....	0	0	0	4	0	5
Weald of Kent, in Pockets..	0	0	0	4	10	5
Do. in Bags.....	0	0	0	4	0	5
Sussex Pockets ..	4	5	5	0	4	5

WOOL MARKETS.

BRITISH.

Per lb.	MAY 1.			JUNE 1.		
	s.	d.	s.	s.	d.	s.
Down Tegs.....	1	10	1	1	10	1
Half-bred do .....	1	10	1	1	10	1
Ewes and Wethers ..	1	8	1	1	8	1
Leicester Hogs .....	1	4	1	1	4	1
Do. Wethers ..	1	6	1	1	6	1
Blanket Wool.....	1	0	1	1	0	1
Flannel ..	1	3	1	1	3	1
Skin Combing ..	1	4	1	1	4	1

SCOTCH.

Per Stone of 24 lbs.

	APRIL 1.			MAY 1.		
	s.	d.	s.	s.	d.	s.
Laid Highland Wool, from 12 to 13 3	12	9	13	12	9	13
White Do. Do.....	16	0	16	16	0	16
Laid Crossed Do.....	16	0	17	16	0	17
Washed Do. Do.....	17	6	18	17	6	18
Laid Cheviots.....	19	6	21	19	6	21
Washed Do.....	26	0	28	26	0	28
White Do.....	32	0	34	32	0	34

LIVERPOOL.

WEEK ENDING MAY 21.

ENGLISH WOOL has improved a shade in value, more particularly skin wool, on which the inquiry has principally run. Combining fleeces, 19½d to 20½d; Down ewes and wethers, 19d to 20d; ditto tegs, 21d to 22½d; super. skin, 18d to 19d; head ditto, 15½d to 17.

SCOTCH WOOL.—We have this week to notice an improvement in the demand for Laid Highland wool. The inquiries have been numerous, and several sales made within our quotations. We have not heard of any business in Cross and Cheviot.

	per stone of 24 lbs.		
	£	s.	d.
Laid Highland Wool, from 12s 6d to 13s 0d	16s	0d	16s 0d
White do. do.....	16s	0d	16s 0d
Laid Crossed do. ....	16s	0d	17s 0d
Washed do. do.....	17s	6d	18s 0d
Laid Cheviot do. ....	19s	0d	21s 0d
Washed do. do.....	26s	0d	28s 0d
White do. do.....	32s	0d	34s 0d
Import for the week .....	103 bags.		
Previously this year .....	2908 do.		

IRISH WOOL has been more inquired for than previously, but at reduced rates. For export there has been little doing, holders not appearing willing to submit to the prices offered. Business will probably continue in this state until new wools come to hand. Irish fleeces, mixed lots, 18d to 19d per lb; do, wethers, 17d to 18d; ditto hogs, 19½d to 21d; ditto combing skin, 16d to 17d; ditto short skin, 14½d to 16½d. Import for the week, 66, previously this year, 2,111 ditto.

FOREIGN WOOL.—There has not been much doing in foreign wool, but since Monday last the imports have been considerable, amounting to 548 bags. The New South Wales imports are looked for anxiously, and will probably be here in the course of a week or two. Odessa, fine, 2s to 3s 6d; Portugal R., 1s 5d to 1s 7d; Portugal, low marks, 1s 0½d to 1s 2½d; Spanish R., 2s 6d to 2s 9d; Spanish, F S, 2s 2d to 2s 4d; German fleeces, 2s 2d to 2s 6d; ditto assorted, 2s 6d to 2s 9d; New South Wales, 2s 4d to 3s; Russian wool, 8½d to 9½d; Buenos Ayres, 4d to 4½d; Mogadore and Barbary, 4½d to 6½d; washed Peruvian, 14d to 16d; unwashed ditto, 11d to 12d. Import for the week, 548 bales; previously this year, 6,221 ditto.

FOREIGN.

MAY 23.

The supplies of the week, ending on Saturday, have been about 2,000 packages of foreign wools, about 1,000 of which are the first clip of the season, from New South Wales, whilst several other vessels, the cargoes of which are mostly wool, are daily expected to arrive, from the same quarter; together with some from Germany and Spain. Private contract trade, though not so brisk as it has been, for some time past, is still healthy, at stationary prices.

BONES.

Since our last there have passed the SOUND, or by ELSNORE, and the GREAT BELT, ships loaded with Bones, bound for Hull, 3; Grimsby, 1; Lynn, 1; Newcastle, 3; Berwick, 1; other parts of England, 2; Arbroath, 2; Montrose, 1; other parts of Scotland, 3; also loaded with Patent Mist or Manure, for Grimsby, 1; other parts of England, 1; for Aberdeen, 1; Inverness, 1; other parts of Scotland, 1.

# THE POLITICAL COMPANION

TO

## THE FARMER'S MAGAZINE.

[Our object in appending a Political Companion to the Farmer's Magazine, was to put our readers in possession of the opinions of the most talented journalists of the day, on *both* sides of any important question which might come under discussion. We trust, therefore, that in giving insertion to articles, which seem opposed to the agricultural interest, we shall not be considered as acquiescing in the doctrines therein advanced, our sole purpose being to enable our readers to estimate the truth or detect the fallacies of the arguments advanced.—ED. FARMER'S MAGAZINE.]

### THE FLOUR TRADE AND THE CANADAS.

We take from the *Public Ledger* an article relative to the *modest* request of the Canadians, that they may be protected in their monopoly of the flour-trade with the other British colonies; the reasoning in which well merits the attention of the President of the Board of Trade. The reason the Canadians assign for continuing the restriction on foreign-grown corn imported into England, is a cogent argument *against* it, and must at once silence all the sophistry employed to persuade the British merchants and shipowners that they are no judges of what most nearly concerns them.

But whilst we are thus impoverishing ourselves, by this absurd restriction, how largely are we contributing to the lucrative trade of the United States! It appears by the American official returns, that the traffic in flour with the West Indies, the British American possessions, and the South American States, consists annually of about 900,000 barrels of flour, and may be computed in value at upwards of *one million sterling!* This trade is secured to them, at the expense of our mercantile and shipping interests, by the absurd prohibition now existing on the conversion of foreign grown wheat into flour, for exportation from England. That we could advantageously compete with the Americans in this trade, is beyond dispute. The price of wheat, on the average of years, is much higher in America than in the Baltic ports, and freights nearly double of those from England to the countries requiring supplies of flour, by reason of the Americans having little back loading; whilst to England the back loading is the principal freight; the outward voyage being sometimes in ballast, and rarely provided with more than part cargo.

Whilst these reasons may be fairly adduced to show that this country may be placed in permanent and successful competition with the Americans, there are others no less conclusive in favour of an immediate commencement of the trade, by a repeal of the prohibitory regulation. These reasons are well stated in a petition presented to Parliament from the merchants and others interested in the grain trade at the port of Plymouth, and we shall make no apology for transferring them here. The reasons the petitioners allege are—

“First.—The prices in America being unusually high, and on the other hand unusually low in England, the opportunity is afforded of establishing a new trade, and overcoming the difficulties inseparable from every attempt to divert it from its wonted channels.

“Secondly.—The prices of wheat in bond in England being about 25s and 28s a quarter, whilst in Ame-

rica they are 42s and 46s, the British West India Islands and Transatlantic possessions will be subjected to a charge for bread nearly double the necessary price, and without even the pretext of any national object.

“Thirdly.—Relief would be given to the holders of about 600,000 quarters of wheat, now and for some years wasting and consuming away in bond,

“Fourthly.—Not only will great advantage result to the millers of England and Ireland, and to the makers of casks, but nearly a clear gain in the freight be conferred on the ship-owners; and, lastly, these important objects may be promoted or secured, simply by re-enacting a bill, known as the Grinding Bill of 1824, which, in its provisions and operation, your memorialists respectfully submit is calculated to confer these benefits unmingled with the possibility of injury to any existing interest whatever.”

The apprehension of fraud which is the only thing now alledged against the conversion of foreign corn into flour for exportation from British ports, has been already shown in our columns to be without the slightest foundation. But we have now, in addition, the testimony of Mr. Hodgson, an intelligent and experienced merchant of Liverpool, who was examined before the last committee on the state of agriculture. We must give an extract from this part of the report:—

“6362. A petition has been referred to this committee from the town of Plymouth, in which they pray that a certain quantity of wheat which is now in bond, may be allowed to be ground into flour for exportation. What is your opinion of that, would it be a disadvantage to the agriculturists or not?—Undoubtedly an advantage.

“6363. Do you consider that it would be possible by any fraud to introduce a quantity of flour, free of duty, upon the market, if that were permitted?—Quite impossible, to any extent affecting the question of the propriety or advantage of the plan.

“6364. What security would you provide, or by what plan do you think it could be affected?—Simply the plan adopted upon a former occasion; to require for every quantity of wheat taken out of bond, an export in flour of its equivalent; hence ensuring that as much shall be taken out of the country as is admitted to its consumption.

“6365. What should you consider an equivalent? It was fixed in the act of Parliament to which I refer; I do not recollect the exact quantity, but it is there stated.

“6366. MR. CAVLEY—Is it 391lbs of flour to a quarter of wheat? The proportion of wheat to flour, in the present corn law which regulates the duty, is at 4 31-38 imperial bushels for each barrel of 196lbs net; but whether that was the exact quantity of the act to permit foreign wheat to be ground I am not sure.

“6367. How many pounds to the imperial quarter

would that make?—Five bushels to the 196lbs of flour, I now recollect was the quantity.

“6368. Mr. BARING—How would you prevent the evasion of the duty by the adulteration of the flour?—It is exceedingly simple. In the first place, there is no market in the world to which flour can be exported, where any but of the best quality will sell: all the flour exported from America, and which amounts annually to about a million of barrels, is exported to slave colonies, to the British West India islands and possessions to the South American States, and is food for the higher classes exclusively, and nothing but the best quality of flour will suit these markets. It would not, therefore, answer the purpose of any individual to export flour of inferior quality, because he must infallibly lose beyond what could be compensated by any gain in the duty. Again, America exports annually this million of barrels of flour from various ports on the line of her continent, and which is subjected simply to the branding of an officer appointed at each port; and so conclusive is that inspection, that American flour will sell all over the world, without other warrant than simply the brand, it having been proved by experience that the quality is ascertained with that certainty, that there is never any doubt upon it; it is merely asked whether the flour be branded superfine, and with that stamp it will sell as such all over the world.

It devolves upon those who object to the measure we now advocate, to demonstrate the fallacy of Mr. Hodgson's reasons against the presumed fraud, before any weight can be allowed to their objection. This, we apprehend, they will find some difficulty in doing, by whatever process they may make the attempt. There can be no doubt that the opposition proceeds from only a mistaken notion, that what is asked for would be injurious to the agricultural interest; and that the reason is “made for the nonce.”—*Shipping Gazette*.

#### STATE OF AGRICULTURE.

(From the *Mark Lane Express*.)

We had hoped that the Lords, whose time has not been very much occupied this Session, would ere this have enabled us to lay their report on the state of agriculture before our readers. They have long since closed the evidence, and from the ardent zeal shewn by some of the noble members of the committee on behalf of the agricultural interest, we should have expected that not a moment would have been lost in submitting the result of their enquiries as to the cause of agricultural distress, and their suggestions for its relief, whilst “the legislature” from which the parties moving for the appointment of the committee seemed to expect so much assistance, should be in a situation to act upon their recommendation. Our own observations, however, tend to confirm, the opinions we long since expressed, that the Session would be pretty nearly spent in the examination of witnesses, and towards the approach of the Michaelmas rent day, a report would be made, from which the tenant farmer would not be benefited, so far as any aid from the legislature was concerned. We constantly warned the tenant farmer from placing any reliance upon the delusive prospect of an amendment of his condition by the direct interference of the Legislature. Good will, however, unquestionably result from the enquiry made by, and the evidence given before the Committees of both Houses. The evidence given before the Committee of the House of Commons, contains a great number of facts deposed to, and opinions ex-

pressed by, individuals selected from amongst those who must, from their situation and pursuits in life, be well acquainted with agriculture, and matters bearing upon it. It is not in the power of any man, or set of men, to cause a rise in prices which shall be permanent, unless by the adoption of a system of legislation which in these days could not for a great variety of reasons, be tolerated, namely, a limitation of the quantity of corn to be grown. The opinions of the most competent judges, nay, the every day experience of *practical* men goes to prove that, although other causes may operate in a slight degree, still the main cause which affects prices, is the relative proportions of supply and demand. Mr. Sanders, who resides at Liverpool, is extensively engaged in the corn trade, and who has, it is clear, usefully given the subject much consideration, thus answers some questions put to him by Mr. Cayley:—

6914. You seem to have contemplated the effects of Mr. Peel's Bill in 1819; did the effects of that Bill exceed your anticipations in point of the mischief, or did it fall short of your anticipations?—I always thought that the effects of Mr. Peel's Bill as stated by Mr. Ricardo and its advocates at the time, were greatly understated; I had a sort of indefinite belief that the fall in prices would be much greater than was indicated by the difference between the standard and the market price of gold; but, upon subsequent reflection I am much inclined to think that the depression that has taken place was the result of causes much more remote than Mr. Peel's Bill.

6915. Did you ever read a pamphlet by Sir James Graham, called “Corn and Currency”?—Yes.

6916. Are you inclined to agree in the views taken in that pamphlet?—I do not recollect exactly what they were.

6917. There is a passage in it to which your attention is requested, “Corn the measure of value to which Mr. Malthus refers, fell in 1822 to 40s a quarter, and this was a scale of reduction lower even than he contemplated. I have endeavoured to prove that this was the inevitable consequence of Mr. Peel's Act of 1819.” Are you inclined to agree with that opinion, or did you agree with it when you read it?—No, I do not agree with it, for this reason, *I know that it was the state of the supply that produced the depression.*

6918. Is it not your opinion that Mr. Peel's Bill did cause a great reduction of prices?—I think it did cause a reduction.

6919. Can you lay your hand upon any measure that you think has been so destructive in its operation upon property as Mr. Peel's Bill?—I do not think it is fair to visit the distress that the country has suffered upon Mr. Peel's Bill; I mean to say that the present state of things would have come about, that nothing in the world could have prevented it. Mr. Peel's Bill said, here we will make a stand. It was incumbent on the nation to have a standard, and as certain as we sit here we should have had prices as low as we have now in the course of time as if Mr. Peel's Bill had never passed at all. The reduction in the price of commodities would have taken place if Mr. Peel's bill had never passed at all. England cannot do as she likes about prices and money.

No man can look at the immense importations of Foreign grain into the country at the period alluded to, without feeling satisfied that a vast depression of prices must have followed as a necessary consequence. Why the anxiety to exclude Foreign grain! Why the constant complaint of the introduction of Irish produce, if increased supplies do not occasion a reduction in prices? Why ascribe the high price of wool to the decreased supply occasioned by the dreadful loss of sheep from the rot,

if the state of the supply have no effect on the market? It is abundantly shown from the evidence of the several witnesses examined, that the recent low prices of wheat arose from the increased quantity produced; and the anticipation of a decreased growth is now acting upon prices and must necessarily produce an advance. The following extract from the evidence of Mr. Hodgson, furnishes important information on this subject:—

6345. If it could be proved to demonstration that there was a less breadth of land sown with wheat, is not it fair to presume that there would be a greater speculation in corn?—I have no doubt, if the opinion I have expressed with regard to the diminished extent of land under wheat for the crop of this year, were established by facts before the Committees now sitting on Agriculture, that a most important rise would be the result, because the price is still 16s. to 20s. a quarter notwithstanding the advance which has recently taken place, under the average of the last fifteen or twenty years. I have no doubt, also, though there is a considerable stock of corn in the country, that the stock has been decreasing; in short, the recent rise itself is a manifestation in favour of that opinion, for I am unaware of its having arisen upon any other ground than conviction that wheat had reached its maximum of depression; and if, connected with the conviction that the stock is now in course of reduction, it should be shown from evidence adduced here, that there is a smaller breadth of wheat under cultivation, to an extent such as I have no doubt can be proved, I entertain not the least doubt that prices would very quickly reach at least an average which, as already stated, would be 15s to 20s above what they are at present: and should such a result follow, the benefits would be almost entirely to the agricultural interest; for speculation having so long been dormant, there is a very small proportion of the existing stock of the country in the hands of any other than farmers; and if within a month an advance of 15s to 20s a quarter should take place, the agricultural interest would derive a benefit of many millions, perhaps four, five or six millions sterling; whilst the other interests of the country would have no cause of complaint, being in that prosperous condition which would submit to the advance of price without murmur. There would be no grumbling from one end of the kingdom to the other; and the fact of short sowing, if it were established, would be more important as a measure of relief than any other which can be devised.

#### THE GERMAN COMMERCIAL LEAGUE.

(From the Leeds Intelligencer.)

One Saturday morning, about two years ago, the trading community of this district was thrown into disorder and alarm by the public announcement of a dire and awful calamity which had newly befallen us, and threatened to involve us in ruin—the Prussian Government had invented a Tariff imposing heavy duties upon the importation of English manufactures, and was inducing her neighbours to adopt it likewise.

True, the same announcement might have been made in the same words at any time within the preceding twenty years, notwithstanding which our trade with Germany had continued, some-how or other, to prosper during all this period, and our merchants engaged in it had remained in a most lamentable state of insensibility to the magnitude of the impending evil. But the organ of announcement did not address them; its field of operation had a wider range; for it is a mortifying fact to contemplate in this age of institutions, mechanic, literary, and philosophic, that the rule still holds good, or bad, whichever may be thought the proper term: the lower the point in the scale of intelligence addressed, the more numerous the auditory. Not that we would insinuate any comparison between organ and auditory in this case, which would be deemed odious by the latter: we believe they stood on equal terms, reciprocally

reflecting, supporting, and extending each other's ignorance in the most edifying manner imaginable.

The effect of the announcement was dreadful. We are assured by a friend here, who was known to be connected with Germany, that for days and weeks he could not walk the streets without being interrupted at every turn to answer alarmed inquirers. A feeling of compassion induced him at first to explain how the matter really stood; that it was merely an old fact which had happened to find its way into a cackle-box, whence it had re-issued as a new fact; that as far as past experience enabled us to judge, we had no need to give ourselves any great uneasiness for the future; and much more he added in the same soothing strain. But after the forty-ninth wearisome iteration of this exercise, our friend's patience became exhausted; yet he found the more he did the more he had to do. He thought of leaving home, or shutting himself up for a while; but other considerations forbade that mode of relief. At length he hit upon an expedient the use of which, in our opinion, nothing short of the direst necessity could even palliate, much less justify: the unhappy man, in the extremity of his despair, at once boldly denied that there was any such country as Prussia in existence! This was a ploy. Some inquirers, the compassionate sort, looked kindly, placed the tip of their fore-finger to the middle of their fore-head, and turned away with slow and solemn step. Others, the self-complacent sort, elevated their eye-brows, turned up their noses, and went their way rejoicing that they had, for once, met a man more ignorant than even themselves or their organ; and so at length it came to pass that the inquirers ceased from troubling, and the persecuted became at rest.

Even the immediate occasion which gave rise to the announcement at that particular time indicated the enlightened spirit in which it was made. Another state had joined the Prussian league; that was enough. English manufacturers must bite the dust. It was overlooked that the State in question had hitherto levied almost prohibitory duties upon English goods, but in adopting the Prussian Tariff had been obliged to lower these duties as much, we believe, as nearly one half. The State we allude to is Bavaria. But credulity was not yet satiated: the organ—we affect the word because it is a favourite with certain "influential parties"—the very same organ, two or three months afterwards, told its gaping admirers, on the authority of a congenial "well informed correspondent," that the league already embraced the whole of Germany, and thirty Principalities out of Germany! This is what the Schoolmen term that figure of speech which consists in putting the thing which is not for the thing which is; transatlantic refinement calls it "going the whole hog;" and O'Connell would exclaim "a mighty big liar!"

Such was the rise and progress of the delusion here. But it did not end here: its capabilities have been found important. It has become a stock piece for representation whenever the usual materials for excitement fail; in that character it has recently been called up by a London organ to perform duty in the absence of Parliamentary matter; and it may possibly, we would just hint, be expected to assist in diverting the public mind from the contemplation of perilous stuff nearer home.

It is this recent re-suscitation of the subject which induces us to turn our attention to it again.

We are far from underrating the importance of the German Commercial League. On the contrary we rank it amongst the most striking results of modern statesmanship skillfully and successfully applied to the promotion of an enlightened object; that object being the removal of all restrictions which prevented the freedom of internal communication between the different German States. Each of these States had its own peculiar Tariff of duties, for the levying of which each had to maintain its own line of custom houses. The vexation, the expense, the delay which arose out of this anomalous state of things rendered it an insuperable obstacle in the way of all comprehensive views for the general good of the land. Some idea of it may be formed if we imagine each county in England to have its distinct scale of duties upon all goods not produced within its own limits; Yorkshire goods paying duty

upon their introduction into Lancashire, whence they could not be removed into Cheshire or Westmorland without the payment of another duty, and so on to the end of the chapter; foreign goods as well as English being thus subject to an additional impost as often as it might be found desirable to transport them from one county to another. We avoid this harassing system by levying one uniform duty upon a foreign article at whatever port it may present itself; this duty once paid, foreign goods are regarded as English, and both may pass from one end of the kingdom to the other without restraint or exaction. Let any one, then, place the map of Germany before him, and run his eye along the maize of dotted lines which divide that country into so many independent States, from the most petty to the most considerable; let him conceive the whole extent of these lines, threading in and out, and in some cases actually intersecting each other, to be studded with Custom-houses owning as many different masters as there are States, each State having its own duties to exact: he may then be able to estimate the intolerable grievance which such a want of uniformity imposed upon the country at large. It was not in the transport of goods only that the grievance was felt: the traveller experienced it at every turn. A few years ago the journey between Brunswick and Leipzig subjected the traveller to have his luggage examined at three different Custom-houses in the course of one day.

This is the grievance which is sought to be removed by the extension of the German Commercial League: it sweeps away all this interior net-work of Custom-houses, imposes one uniform scale of duties, and has one common external frontier within which all internal communication between State and State becomes as free from restraint as it is between one part of England and another.

We have no need to look for a merely self-interested mercenary motive on the part of Prussia, because she was the first to conceive and propose this bold design, since the whole proceedings of that power for the last twenty years in the career of substantial improvement enable us to assign a more liberal motive. In every department of domestic policy, in the perfection of her post-office establishment, her arrangement of public conveyances so as to facilitate communication, the construction of roads and other public works, she has held out an example to the whole of Germany which no other state in that country has yet succeeded in imitating; and in the higher duties of a Government, in her provision for the moral and intellectual cultivation of her people, Europe at large is content to copy her and practice the lesson she teaches.

But Prussia is a manufacturing country, and the duties imposed upon foreign manufactures are high; thus it is said, Prussia seeks her own advancement at the expense of other countries, and England is her principal object of attack. If this have really been the motive of Prussia in the formation of her Tariff, we can only say that she has, in this instance displayed a strange incapacity in the adaptation of means to an end. Of course Prussia must have been quite aware that she was opposing herself to no second or third rate manufacturing power in this adventure. She must have looked upon England as the scene where the triumphs of industry, science, and skill were most conspicuous: she must have regarded our advantages in this respect as the means which enabled us to outstrip all the rest of the world in the operation of accumulating value upon raw material. And how does she meet the case? Does she so contrive her impost that the labour and skill which form so important an element in the value of an article shall at all events be taxed? Not she indeed. The Prussian Tariff is framed on the most simple unsophisticated principle imaginable: the duties are levied upon the weight of the article! The labour cannot be weighed, the skill cannot be weighed; all that portion of the value which they represent passes duty-free. Duty is levied upon the material only. Hence the ruder and heavier the goods, the greater the proportion which the duty bears to the value. Surely this cannot be the mode of proceeding which a quick-sighted Government like that of Prussia would have

adopted if her object had really been to exclude the productions of a manufacturing country like England. But if we regard her object to have been simply the raising of revenue, the inconsistency vanishes at once. The chief articles supplied by our own market to Germany are so far distinct in their character that the manufactures of that country offer no efficient substitute for them; and they are, at the same time, so well adapted to the wants and habits of the people that even a high rate of duty will not drive them out of use. Hence it is that amidst all the outcry which has been raised from time to time as to the designs of Prussia against this country, we hear marvellously little as to the effects which have been actually experienced. We do not hear it alleged that the trade of this district with Germany has suffered; and a Manchester Correspondent of *The Morning Chronicle* who describes himself as an exporter of cotton goods to Prussia itself, and displays an intimate knowledge of the subject, denies that any such result has been experienced in that department.

The Prussian duties on woollen goods are 30 dollars per cwt. Upon a piece of common stuff goods this may amount to about five or six shillings, and the extra cost to each wearer of a dress will be about a shilling; far too little, we may be assured, to throw out of demand an article for which no adequate substitute is at hand. Upon the very heaviest and coarsest description of woollen goods sent from this market to Germany the duty will equal eighteen pence per yard, or 50 per cent upon the value; yet it so happens that the great bulk of these goods have all along been destined for Prussia, not through the medium of a smuggling operation, but subject to the payment of duty in the open Prussian Fair of Frankfort-on-the-Oder.

So much for facts, effects, and practical results. There is yet another view of the matter to be taken: it is hypothetical, we grant, and we use it hypothetically. Let us suppose that Prussia, in the formation of her tariff, had not been guided by the consideration of revenue, nor by regard for the interests of her own manufactures only, but had been influenced by a desire to extend her commercial intercourse with this country. We put the case in reference to woollen goods, in which our interest is most immediate. Let us then suppose that Prussia addressed herself thus:—These English manufacturers send us nothing but the very lowest and rudest of their productions; for the finer, the more costly description of goods, we are dependant entirely upon our native manufacture; yet England is the great workshop of the world, and we are but apprentices in the craft. How shall we remedy this; Let us lay on a duty by weight, which shall be as heavy, in positive amount, upon the low priced goods we now receive from them, as upon the most costly qualities they can send us. We shall then stimulate them to supply us with the very primest of their productions, and we shall enjoy the use of them.

We do not say that Prussia positively took this view of the case, but she would have been amply justified in so doing; for it is a fact that in the catalogue of our exports to Germany, *cloths* of any quality, fine, middle, or ordinary, form no item. A stray piece or so may occasionally be found in an enterprising draper's shop; he calls his friends to look at it as a curiosity, and they regard it as such—

“Not that they think it either rich or rare,  
But wonder how the devil it got there.”

Yet we flatter ourselves that no nation under the sun can equal us in the manufacture of cloths, and *mit Recht*, as the Germans say, and as the knowing ones think too, if the truth were always told. We make this observation without reference to the Prussian League, for it has applied equally to all parts of Germany, whether in or out of the League; to Hanover, to Brunswick, to Oldenburgh; even to Hamburg, which stands in the most proximate relation with us. Yet even the Prussian duty of 30 dollars per cwt. would not make more than ten per cent. upon a twelve shillings cloth; upon a fifteen shillings cloth hardly seven and a half per cent. And do our cloth manufacturers, with all

their skill and experience, fear to come in competition with the Continental manufactures under such trifling disadvantage? Nothing is more certain than that the mere want of skill in the getting up of a cloth will make a greater difference than this; one of our greatest manufacturers has been heard to declare that a difference of three shillings a yard, in saleable value, may be made upon a fine cloth in mere finish alone. Now good reader—gentle reader, we would have said, but the exercise we are about to put you through is somewhat of the ungentle—“take a single captive;”—let him be newly caught from any part of the Continent, provided only he have a coat on his back the produce of the land. Take him by the sleeve and rub it up: you will find the nap start upon it “like quills upon the fretful porcupine:” examine the tail of his coat; and you will find it, like the tail of O’Connell, a miserable commodity. Rude substance, the semblance of durability, are there; but no texture susceptible of high finish; and yet to such a commodity, we yield the supremacy over the produce of English skill.

The Prussian duties may be considered high, but to which of the great countries in amicable relation with us shall we be referred for a shining example of liberality by way of contrast? To the United States, perhaps, with her *ad valorem* maximum duty of fifty per cent., settling down by slow and painful steps to a permanent minimum of twenty per cent.; or to Portugal or the Brazils, where the duties are fifteen per cent. only; or to Spain, where they are not quite prohibitory; or to France, where there are no duties at all, because our goods are altogether prohibited. It should be borne in mind, too, that upon all goods brought to the great fairs, a deduction is made of one-third from the amount of the Prussian duty; and these fairs are the grand reservoirs whence all the main channels of German consumption are supplied. Our calculations, above, are upon the full duties, and require the benefit of this modification. Besides, if the Prussian duties be really too high they now stand the fairest chance of correction. As a single State, Prussia might have established the most absurd of tariffs, and stuck to it with the perversity of a political economist. But joined as she is with other states,

whose diversity of advantages and interests, natural and acquired, will make them quick to detect anything which presses too hardly upon them, she will be compelled to listen to reason; for according to the constitution of the League, each state receives a share of the general duties collected, in proportion to the extent of its population, and has a voice in the council which determines upon changes. Amidst all this diversity, and in the watchful jealousy which a compact of this delicate nature amongst independent states must call into play, we think we see ample security, monopoly and oppression by any one state for its own benefit. Let the attempt be but seriously made, and we are persuaded the whole structure of the League would tumble to pieces. Prussia has already admitted her nearest manufacturing rival, Saxony, as a member of the union: there is little evidence of the spirit of monopoly in this. The Belgian manufacturers, the greatest rivals of Prussia in the manufacture of cloths, are seeking admission to the union, and may, no doubt, obtain it. We shall lose nothing by the change: the Belgian duties upon our goods are much the same as the Prussian, and are levied in the same manner, by weight. All the difference would be that the Belgian and Prussian Custom Houses at Henri-Chappelle would vanish; and Antwerp and Ostend would serve the purposes of both. Some negotiations have been going on, also, to include Austria in the League, in which event the difference to us would be the admission of our goods into that country under the Prussian duties, in exchange for the prohibition under which they now labour.

If our commercial interests abroad have really been sacrificed for want of diplomatic care, it is the duty of our Government to see us righted. But we ought to have a very plain case; for our Rulers are not over prone to trouble themselves with such matters: we generally find them plenty of work at home. If they should find, upon enquiry, that we had neglected to avail ourselves of the advantages within our reach, they might dismiss our complaint at once as visionary, and say to us, in the words of Franklin, “God helps them who help themselves.”

## TURF INTELLIGENCE.

The season is sufficiently advanced to enable us to form an opinion of those young racers which annually excite so much attention throughout the kingdom, on account of the great stakes which are prepared for their competition, and which excite more attention than all the other events which are decided on the Turf: it will easily be perceived, that we allude to the three-year olds; amongst whom it would appear there is nothing of a very superior description;—neither a Plenipo nor a Queen of Trumps; a Leger nag or two still remain in the dark, which will most likely be kept so till the month of September.

But, to proceed consecutively. Since we last addressed our readers on the present subject, several highly important meetings have taken place; and, in the foremost of the list, stands Chester. For some previous years Chester Races had languished beneath the withering influence of intolerance, till at length the choice spirits of this distinguished and venerable city shook off their lethargy, roused themselves to laudable activity, and very much improved the Race List. The Trade Cup was doubled in value, and so well and so nicely estimated were the qualities of the va-

rious racers within reach of the Roodee, that the acceptances were more numerous than usual, and thus the prize was much increased in value. For many weeks prior to the day appointed for the decision of the Chester Trade Cup, the betting was very animated, particularly in Manchester and Liverpool, where speculation in the doctrine of chances is frequently carried to a very considerable extent. However, if the perception of the handicappers had been exercised with more than ordinary skill, the betting men suffered their judgment to be very much led astray, and adventured freely upon horses which, in the moment of trial, proved to be utterly unworthy of confidence. Thus, Jupiter was backed by the Manchester Turfites to a very considerable amount, for no reason that we can perceive, but because he was the property of Mr. Thomas Johnson, their townsman, as his previous performances entitled him to no such distinction. As the time approached for the decision of the Cup under consideration, Jupiter receded in a trifling degree, and Sir John Gerard’s Billinge crept into favour, most unaccountably, as he had never accomplished a single performance that could entitle him to the charac-

er of a racer, to leave superiority altogether out of the question. Red Rover had risen and sunk in the scale, and a few days before the event came off was the favorite. However, the evening prior to the race, something was whispered about Mr. E. Peel's Tamworth, and he took a decided lead in the betting. This horse won the race without difficulty, clearly proving that his competitors were a very indifferent lot indeed. More money was adventured upon this cup than upon any racing event which has occurred in the north western counties for half a century. The Manchester men were very heavy losers.

If the first day of Chester Races was remarkable on account of the interest excited by the Trade Cup, the meeting unfortunately became distinguished by a very disgraceful event the following day, when Mr. Barrow's Catherina came out for the King's Plate: she came on the ground ready saddled, her rider was weighed, and yet she did not appear at the starting post, but was taken away; and this highly reprehensible conduct produced the following decision, and well merited animadversion.

"The case respecting Catharina having been referred to us, and having heard such evidence as we could obtain, we are of opinion, that all bets made on or against Catharina, for His Majesty's Plate, should be void; and we cannot express in terms sufficiently strong, our disapprobation of the conduct pursued by the person having the management of Catharina, conceiving such conduct amounts to a deception of the public, and tends materially to injure the interests of racing.

May 4th, 1836.

E. M. L. Mostyn.—T. S. M. Stanley.—F. R. Price."

The Stand Cup on Wednesday brought out our favorite Queen of Trumps; and her majesty proved herself all right by cantering in for it with all imaginable ease. She appeared on Thursday for the Marquis of Westminster's Plate, and met with no competitor. A detail of this highly interesting meeting will be found in its proper place, and we particularly direct the attention of our readers to the very pleasing corollary attached to it.

York Spring Meeting commenced the following Monday, May 9; and closed on Tuesday evening; thus affording two very unsatisfactory meagre day's diversion. Old Ebor! how art thou fallen by bad management!

On the following day, Wednesday, May 11, the Liverpool Craven Meeting came on; where we expected Queen of Trumps would appear for the Trade Cup, particularly as she showed so well at Chester a few days previously; however, her absence is easily accounted for, and manifests the discernment and good sense of her owner. The space upon which the Liverpool Race Course is formed was, only a few years ago, one of those bogs so common in that part of the kingdom, and locally distinguished by the name of *Moss*, which amounts to what is generally understood by *Morass*. These Lancashire mosses are, on examination, found to consist of a dark-coloured sandy soil, held together, as it were, by that sort of ill-nourished vegetation which

is generally found in such places where the situation happens to be low. Those who originated the Liverpool Aintree Course entered upon the speculation with enthusiasm, and in order to render the ground as eligible as possible, they spared no expense, particularly in draining; in fact, so anxious were they to draw off the semi-stagnant water, and also to prevent its future accumulation, that they caused too many under drains to be formed; and the consequence has been, that, after a heavy day's rain, the Course becomes dry as rapidly as possible; the rain running through the light sandy thin-skinned soil like a sieve. Generally speaking, therefore, the course is very hard. Nor is this all: it is so formed, that the run down the further side, for about half a mile, gradually declines; while the run in, of about the same distance, as gradually ascends; in each case, placing a considerable strain upon the tendons of the racer. When to this, the hard and unelastic quality of the meagre turf with which it is covered is taken into consideration, it will easily be perceived that such a course is not very grateful to the feet of the noble animals of which our racing studs are composed, particularly after very dry weather, like that which immediately preceded the late Liverpool Races. Hence the reason Mr. Mostyn would not allow Queen of Trumps to start. Going on the beautiful turf of the Roodee, upon which the Chester Course is formed, could neither injure her feet nor tendons; while, at the Liverpool Course, both would have been placed in jeopardy, had she started.

General Chasse proved successful for the Trade Cup, after a very severe struggle with that second rate racer, Inheritor; while Tamworth, who had acquired laurels, a few days before at Chester, shewed what he has ever been, a middling sort of nag.

A BIT OF A MISTAKE.—On Tuesday week, a traveller arrived at one of the Commercial Inns at Ledbury, mounted on a regular Rosinante, a bare-boned animal, "lopped, cropped, wind-galled, spavined, quite gored, and blind" of one eye; several persons at the inn smiled when he alighted, but our traveller, nothing abashed, entered the house. He ordered a feed for his horse, and refreshment for himself, and said he had ridden very hard, having come from Gloucester in a little more than an hour; glances of incredulity were exchanged by the whole of the persons present, and one among them expressed a doubt of the possibility of *such a nag* doing the distance in double the time. The traveller, a warm-hearted son of Erin, was not very well pleased at his veracity being thus questioned, and offered to back his *animal* to go the next day sixteen miles within an hour. A wager to a considerable amount was subsequently made to that effect, and the match came off on Wednesday, betting being two and three to one against *barebones*. The place of trial was four miles on the Hereford road, twice and back. To the great surprise of many, the first eight miles were done in thirty-one minutes. The odds now rose upon time, but the knowing ones were duped, as the splendid old hunter, for such it proved to be, improved every mile, and eventually accomplished the distance (16 miles) in fifty-seven minutes.



# THE FARMER'S MAGAZINE.

VOLUME THE FIFTH.

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JULY TO DECEMBER, MDCCCXXXVI.

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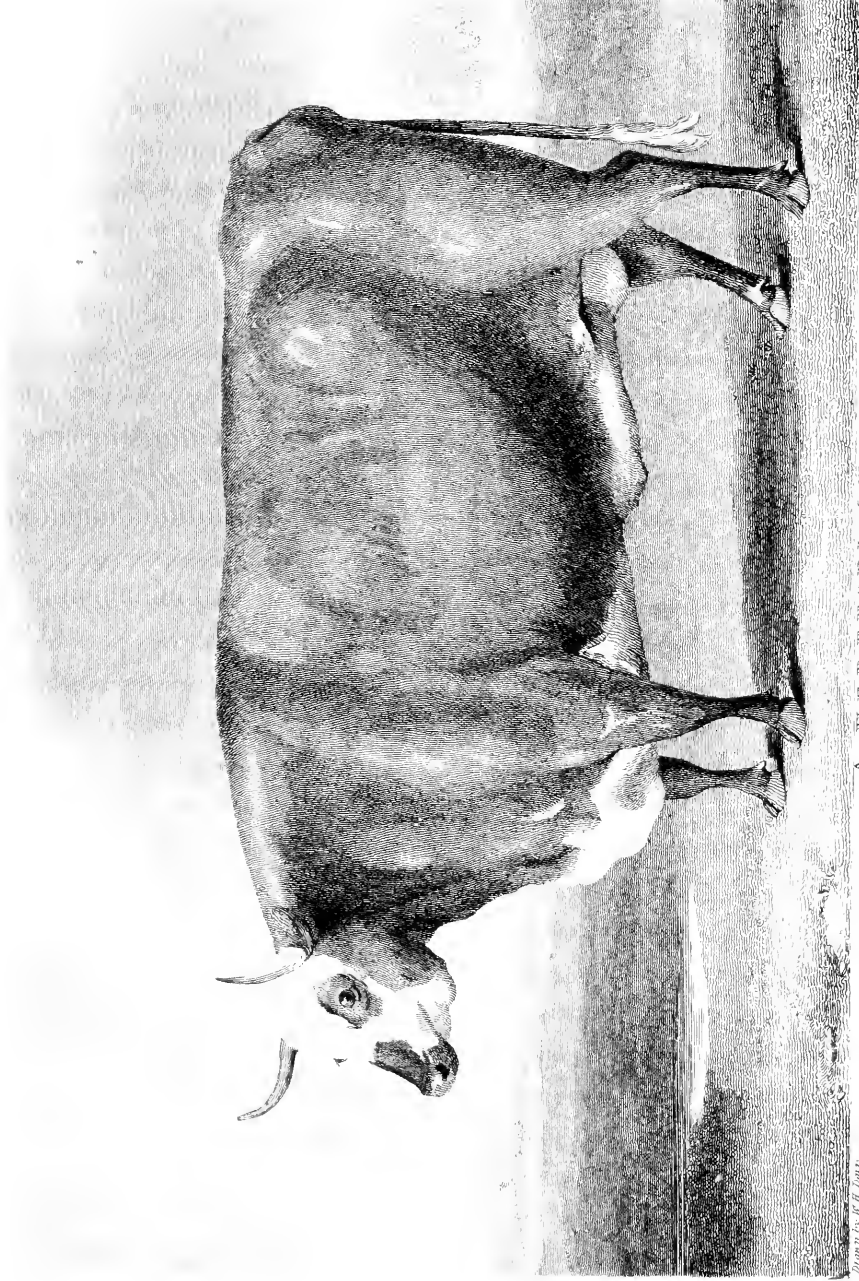
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Engraved by J. S. Hildner

A HERFORD OX  
THE PROPERTY OF STAFFORD ABBEY OF BUCHBERG PARK, NORFOLK-SHIRE.  
Exhibited at the Southfield Show, 1833.  
When Published by Chapman, July 1. 1846.

Drawn by W. H. Dore.

# THE FARMER'S MAGAZINE.

JULY, 1836.

No. 1.]

[Vol. V.

## THE PLATE.

The animal which forms the subject of the Plate is a four years and six months' old Hereford Ox, the property of STAFFORD O'BRIEN, Esq., of Blatherwicke Park, Northamptonshire. It was exhibited at the last Smithfield Shew, in Class 1, and although it did not obtain the prize, was highly commended by the Judges. It had previously obtained a premium at the Rutland Shew. There were many persons who prefer a moderate-sized well-framed beautiful animal, to the larger and more gigantic species, who would have awarded the palm to this beast, which was certainly a very fine specimen of the Hereford breed.

### TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—That the trifolium is a valuable and productive species of clover, appears now to be placed beyond all doubt, as it has proved itself capable of flourishing in this climate under a winter of ordinary severity. Such a winter was the last, and still thousands of acres have teemed forth an abundant and most acceptable produce. It is another merciful instance—among instances innumerable—of the care of a great and powerful God for his creatures here on earth. In the few observations with which I purpose to trouble you on this subject, I will divide my remarks into two separate departments; the first to relate to the best means of cultivating this plant; and the other to its value as a food for sheep and cattle when the crop is obtained. First, as regards its cultivation. The soils best suited for its growth are those, which may in a few words be described as those which have been found most congenial to the growth of red clover, and I confess, I have seen nothing yet to satisfy me that it can be cultivated with success on land which is too wet or thin for the general purposes of growing other artificial grasses. Persons very enthusiastic on the behalf of this plant have attributed to it, a capability of flourishing in the poorest soils; however, I repeat, I have not seen an instance of this sort, but I have witnessed several failures of attempts made to cultivate it on land, on which red clover has never been known to succeed. The time for sowing the seed is immediately after the ground is cleared from the preceding straw crop. I once heard a practical man give it as his opinion, that the later the seed was sown in the autumn the likelier the plant would be to bear up against a hard frost, and other ungenial weather; but the experience of the last autumn has, I think, fully established the propriety of getting the seed in the ground as early as possible. The quantity of seed sown to the acre should be at least one-third more than red clover. The reasons for this are two-fold, the seeds in the first place being larger do not seed the ground so thickly; and, like all other winter plants by being thick they protect each other from the weather; the latter observation is often experienced in cases of rye and winter tares, fields thickly planted always coming much earlier to use than those which are set thinner on the ground, and consequently more ex-

posed to the elements. Should the ground be ploughed or not? This question fully brings to bear the old maxim, that "doctors differ." My opinion is that the ground *should be* ploughed, the reader perhaps may think that it *should not be* ploughed, and so I will proceed to give my reasons for my opinion; but I will first call the attention of any *positive* opponent that I may meet with, to the fable of the camelion, whose colour was the subject of dispute with the Arabian travellers—one vehemently exclaims:—

"'Tis green—'tis green, sir,—I assure ye."

"Green," cries the other in a fury,

"Why, sir, do you think I've lost my eyes."

And both were right, and both were wrong—because the creature changed its colour with the various shades of light. And thus may it be with the trifolium—circumstances of soil and season may set at naught any given rule for its cultivation; in fact, experience shews this to be the case, but at the same time, I also think it has shown the ploughing for the seed to be the safer plan. It should be recollected that since the introduction of this plant we have had a succession of seasons favourable to the easy tilth of corn ground at the autumn of the year. If the trifolium has been sown after wheat—the wheat seasons—for the three years preceding the last—have been remarkably light and clean, and thus has the surface of the land after harvest presented a facility of tillage to the harrows not usually to be met with, and so the seed may have been well secured in the earth without the use of the plough. If on the other hand it has been sown after barley or oats, the winters for feeding off the turnips which these crops succeeded have been equally dry and favourable; independent of the dry summers and favourable autumns, which would apply in this case as well as in the event of its being sown out of wheaterop; all these circumstances are favourable, and in a degree account for the many instances of success of the insufficient operation of harrowing. If now on the contrary, this plant had become general in this country in the three years succeeding 1826, which were wet seasons, I have a strong impression that very few persons could now be found to advocate the harrowing system only, instead of the use of the plough; and if any such advocates under such circumstances were to have been found, I apprehend they would have been confined to the farmers on the light and best

turnip soils, where it is almost impossible to get an arid or adhesive surface. Let me be understood, that I do not recommend a deep ploughing, only just of sufficient depth to secure a healing for the seed, which should not be sown before the ground has undergone repeated harrowings and rollings; the firmer the state the ground is worked to the better will the clover flourish. I cannot convey the nature of the season that I would prefer for the trifolium, better than the mention of the circumstances which are thought the most desirable in sowing clover leys with wheat—the ground *disposed to work close and yet the harrows to go clean*. As regards its value as a food for stock, it has the triple recommendation of coming early—being very nutritious—and sheep and horses being very fond of it—if a little management be used in the first giving it to them. It seems to me to possess the peculiarity of having a taste, which stock object to at the commencement of feeding on it, but when once reconciled to this objection, they appear to prefer it to any other sort of green food. An instance occurred last year within my knowledge, which fully bears out the objection that stock in the first place entertain for the taste of the trifolium. A neighbour of mine had a land missed by his seedsman in the middle of a field which was sown with trefoil, and white clover. In the Autumn of 1834, when this omission was discovered the land was sown with trifolium, and which came on very well, as did also the other part of the field. In the Spring of 1835, this field was stocked with ewes and lambs to fat—a dry summer following, the lands were fed down remarkably bare, with the exception of the land of trifolium, which was comparatively untouched. These sheep not having been compelled to eat it in the first instance, never overcame the objection which they at first have for the taste and smell of this new plant; and in proof of their becoming to prefer it I have some sheep, which have been fed on it this Spring for several weeks, and they evinced considerable restlessness and discontent when they were taken from it, and put—some to crop on trefoil, and others to winter tares. It was some days before they again became quiet, during which time there was a decided falling off in their condition. I have also observed that horses having been fed on it will leave any other sort of food for it, and that they do remarkably well on trifolium, every carter in the kingdom, who has used it, will bear testimony. There is no question, but that it will produce more weight of food during the month of May, than either red clover, or winter tares;—this I have known put to the test, and the result was astonishingly in favour of the trifolium. I know an instance, this Spring, of 109 ewe tugs having been kept, the May month, on 240 rods of trifolium, being at the rate of about 8 rods per day. When they first began it, it was pitched off on the ground for them, and subsequently, when it became higher it was cut up and put into cages. I never saw sheep thrive faster at turnips and hay, than these sheep improved on trifolium, during last May.

With regard to its qualifications for hay, I am not prepared at this moment to give a decided opinion. There are now in the neighbourhood in which I reside, several pieces in swathe, and for which the weather for the last few days has been very unfavourable. I confess I think it probable that the red clover may be quite as preferable for hay, as the trifolium is preferable to the red clover for food for stock, in a green state. If, however, in the result, it proves to be less valuable for hay than the broad clover—and I think it will prove so—it may nevertheless be very acceptable during the next winter, as the stock of hay to

arise from the red clover will be unprecedentedly short.

The longer the time that has elapsed since the ground about to be sown with trifolium has been sown with any other sort of clover, the better the chance will be for a crop of the former. This observation, cannot of course, be acted on by the farmer who sows his land strictly in a four lair system, and consequently would sow the trifolium in a wheat stubble, which had been sown out of a clover ley, and which would be in a due course to be prepared for turnips the following summer; but where a different rotation of cropping is followed, it may be found possible to avoid the clover ley wheat crop for sowing the trifolium on, and to take in preference the land where a fallow, or pulse, or esculent crops, may have preceded the last corn crop.—I am, Sir, your obedient, and very humble servant,  
Sussex, June, 1836. AGRICULTOR.

### WILTS AGRICULTURAL SOCIETY.

The Spring Ploughing Match and Annual Sheep Shearing took place on Wednesday, June 15, at Market Lavington. Twenty-one ploughs started, a greater number than on most former occasions. The premiums were awarded as follow:—

In the first class, being two horses without a driver, the first premium was awarded to John Drewett, servant to Mr. Haines, of Erlestone, who ploughed his half acre in two hours thirty minutes; the second to John Pearce, servant to Mr. Fowle, of Lavington, who ploughed his half acre in two hours thirty-six minutes; and the third to John Baker, a servant of Mr. Russell, of West Lavington, who ploughed his half acre in two hours nineteen minutes.

In the second class, being two oxen without a driver, the first premium was awarded to John Champion, a servant of Mr. Grant, of Coulstone, who ploughed his half acre in three hours twenty-two minutes; the second to James Crook, a servant to Mr. Richard Box, of Chiverell, who ploughed his half acre in three hours twenty minutes. The third candidate not having performed his work in the time specified by the rules of the society, was considered to be excluded from receiving the third premium.

In the third class, with horses and a driver, or with four oxen and a driver, the first premium was awarded to Jas. Bevan, servant of Mr. Tuckey of West Lavington, who ploughed his half acre in two hours ten minutes; the second to Wm. Mead, servant of Mr. Jeremiah Gye, of Fiddington, who ploughed his half acre in two hours five minutes, and the third to Stephen Goddard, servant of Mr. Bevan, of Gore Farm, who ploughed his half acre in two hours fifteen minutes.

The Committee recommended the usual bonuses of 5s to be paid to all the unsuccessful candidates, who performed their work in the prescribed time.

**SHEEP SHEARING.**—1st Class.—The first premium was awarded to John Smith, of Uphavon; the second to James Oram, of Uphavon; and the third to David Chapman, of Littleton.

2d Class.—1st premium to Thomas Wells, of Uphavon; the 2d to John Church, of Overton; and the 3d to William Davis, of Littleton.

The Committee recommended that a bounty of 2s 6d be given to each of the unsuccessful candidates, the whole of the shearing being remarkably well done.

The only candidate for the premium for rearing lambs, was Thomas Baily, shepherd to Mr. E. G. Polhill, of Charlton.—Mr. Polhill declaring that Baily reared 212 lambs from 220 ewes, all which lambs had fallen since the 10th October, and were living on the 1st May; and that 218 of the ewes were living on the 1st May.—The first premium was consequently awarded to Thomas Baily.—From the circumstance of this being the only claim, it is inferred that there is a bad breed of lambs in the neighbourhood, this season. The above ewes were full mouthed.



## THE CENTRAL AGRICULTURAL ASSOCIATION.

A meeting of this association was held on Friday, June 17, at the Crown and Anchor Tavern, which was very numerous attended. The Duke of Newcastle presided on the occasion, and was supported by Earl Stanhope, Earl of Tankerville, Lord Darlington, M.P., Lord Wynford, Lord Kenyon, Sir C. B. Vere, M.P., Sir F. Slueckburgh, Colonel Sibthorpe, M.P., Mr. Ormsby Gore, M.P., Mr. Eaton, M.P., Mr. G. Palmer, M.P., Colonel Rushbrooke, Colonel Carnac, Mr. Bernard, of Trinity College, Cambridge, Mr. Branfill, Mr. W. Medley, Mr. R. Spooner, Mr. J. Richards, Mr. Allnutt, Mr. Round, Mr. Montgomery Martin, Mr. Escoff, and several other gentlemen who attended as deputations from various agricultural districts.

The noble CHAIRMAN shortly stated the objects of the meeting, which his Grace remarked would be fully detailed in a series of resolutions to be proposed for their approbation and assent.

Mr. ORMSBY GORE after a few preliminary observations, moved the following resolutions:—

1. That after succeeding governments had so fully acknowledged the great distress of the agricultural interest, and after his Majesty had so graciously, on repeated occasions, recommended in his speeches from the throne, the consideration of that distress, the Central Agricultural Society feels great regret that so small a portion of the surplus revenue should have been allotted to the relief of agriculture.

2. That this Society, whilst it looks with great anxiety for the reports of the several committees of the Lords and the Commons, cannot avoid expressing a hope that such acknowledgements of distress as have been made, must be followed by the recommendation of some measures of relief, and it deprecates the idea of the late rise in agricultural produce being considered as indicative of permanent prosperity. The Society, therefore, strongly urges the necessity of reverting to the principles of taxation as the means of affording essential benefit.

3. That the landed interest, besides paying as consumers the same indirect taxes as every other class of his Majesty's subjects, are also heavily and exclusively taxed for the payment of tithe, for county and parish rates, including the building of court houses of correction, lunatic asylums, &c., &c.; as also for the maintenance of prisoners, or patients, therein; for the making and repairing of roads and bridges; and though last, not least, for the heavy burden of the poor-rates.

4. That all these heavy charges, being for the benefit of the nation at large, should not be levied by partial assessment on land and houses almost exclusively.

5. That manufacturers have a great advantage over agriculturists by the skilful application of machinery, so as to diminish the expense of manual labour, for when men are no longer wanted, they are returned to the several parishes whence they came for support; but this advantage to the former is denied to the latter, for should they employ any machinery to the exclusion of manual labour, the agriculturists would still have to maintain the men thus excluded from work.

6. That the present system of taxation of the kingdom requires revision, inasmuch as that at the time the greater portion of it was established, the landed interest comprised the wealth of the country, more especially as regards the period of the enactment of land tax, and of the poor laws in Queen Elizabeth's reign. Whereas the relative value of property, at the present time, places the land, with its mortgages and other incumbrances, in the proportion of not one-half of the amount of the property of the other interests of the country.

7. That for the purpose of increasing the capability of the farmer to meet these outgoings, it appears necessary that there should be an extension of the circulating medium of the country, as far as a metallic basis will admit of.

8. That the establishment of banking companies, on sound principles, authorized to issue 20s notes, as has

been long the practice in Scotland and Ireland, to the great benefit of these countries, will tend to the benefit of the industrious classes of England.

9. That the Local Associations of Great Britain be recommended to turn their attention to these facts, and to adopt such measures as may best conduce to the attainment of a more equal distribution of taxation, according to the original intention of the Legislature.

10. That the landed interest, besides paying as consumers the same indirect taxes as every other class of his Majesty's subjects, are also heavily burdened with tithes, and taxed for county and parish rates.

EARL STANHOPE rose for the purpose of bringing forward his resolutions. His lordship spoke as follows:— Although the resolutions he should have the honour to propose to the meeting comprised several subjects, each of which was of considerable importance, he should feel it his duty in the observations he should make on them to be as concise as possible. It was incumbent upon them to take into their serious consideration the system of those men who were termed political economists, (*hear, hear*) and this was a question that all would allow to be of vital importance; (*hear*) that the system was one which the agricultural interest ought strenuously to oppose; (*hear*) but it was one against which they had no prospect whatever of success unless they adopted adequate measures; unless they acted with that energy and union becoming Englishmen in such a cause, and in a moment of great danger. And it was the more incumbent on them to take this question into consideration, because the work had now been laid aside; the political economists had thrown down the gauntlet, and it was now openly avowed by an organ of the non-productive classes, by a person whom he (Earl Stanhope) was, for the credit of the electors of Middlesex, ashamed to say was one of the representatives of the representation of this great county. (*Hear, hear.*) It had been asserted by him (Mr. Hume,) "that the people of England might dispense with the landed interest; (*tremendous cries of hear*), and that if England never grew a single bushel of wheat, barley, or oats, she might be still as great and prosperous as she was at present. (*Long continued cries of hear and shame.*) The meeting would allow him to call to their recollection a resolution which was almost unanimously adopted, (he meant with only two dissentient voices,) at the first meeting of their Agricultural Society, and which resolution he had the honour to propose. That resolution stated that the only means of remedying the extreme distress of the agricultural interest was by either raising prices to the level of the present burthens, or diminishing burthens to the level of prices. (*Cheers.*) In adopting that resolution, the society could not mean that it was merely to remain on their minutes without leading to any practical result. He did not suppose that in adopting that resolution as a basis and acknowledged principle of their proceedings, they did not mean to frame one or the other of those alterations, (*hear*), or in other words that an equitable adjustment, a measure surrounded with many difficulties but still imperatively demanded by justice, (*cheers*) was to be pursued, or that they were to adopt the other alternative, one that had been some years since adopted without opposition with great benefit to all of the producing classes, and one that offered to the minister of that day a source of congratulation; he meant the increasing the amount of the currency. Take either of these causes, and one or the other they were bound to take by their resolution, and he would beg of them to consider for a moment the antagonists opposed to them. (*Hear.*) They had those great luminaries of the age, those scientific philosophers who are the despisers of all that practical knowledge which the Agriculturists gained by practical experience; men who were wise in their own generation more than perhaps became the children of men, (*hear and laughter*) and who thought that by new fangled theories and by subverting successfully every principle on which the prosperity of this country was founded, they could open to the world a new millennium of happiness and prosperity. (*Cheers.*) These were opposed to the Agriculturists and not only these; (*hear*) they were opposed by the prevailing factions of

the country, he called them factions, and not parties because they had supported all the measures that had involved the country in so many difficulties, and had rendered it liable to the pressure of much severe distress. (*Hear.*) They were also opposed by the enlightened patriotic House of Commons now in the radiance and glory of its newly acquired popularity—by its newly accomplished reform. (*Hear, hear, and interruption.*) He would not give his opinions of the merits of that assembly. (*Interruption.*) Far be it from him to be guilty of such presumption; but was there a body of men in this country by whom that assembly was respected? (*Immense and long continued cheering and partial disapprobation.*)

Mr. BRANFILL rose to order, and considerable confusion ensued, in which he was understood to say that when he joined the Agricultural Society, he was informed there was to be no expression of political opinion. He thought the reform bill was calculated to confer blessings on the country. (*Great cheering.*)

Earl STANHOPE resumed. He was, he said, proceeding to state that they were opposed not only by a majority of that assembly (the House of Commons); but they were opposed also by a numerous and influential class; not only those whom the late Mr. Cobbett called jews and jobbers, (*laughter*) but by persons of fixed money income; (*hear, hear,*) persons who were necessarily inclined to concur in measures that lower the value of labour and increase still more and more the value of money. (*Hear, hear.*) He should, therefore, like to know, opposed as they were by such persons, with so formidable a confederacy arrayed against them, what prospect the agricultural interest had, (*hear*) and to whom and to what class of society the agriculturists were to look for assistance and protection; all that powerful assistance that would enable them to succeed in their views, with the full knowledge of all the opposition against them? They all knew that union is strength, (*hear, hear,*) and it was by union alone that they could succeed. (*Cheers.*) They well knew that all the agricultural classes, the landlords, the tenants, and the labourers have one common interest. (*Cheers.*) That which they had to effect was a solid union with the labouring classes; with those who lived by the sweat of their brow; it was to these that they had now to look for assistance, and it was the interest of the labouring classes to aid in the present struggle of the agricultural interest. What he would ask, was the interest of the labourer? (*Hear.*) His interest was to have full employment and good wages; and the better the prospect of the farmer, the stronger the hope of the labourer to obtain both. It was impossible for the landlord to prosper without the tenant also prospering. (*Hear.*) Each of them had rights to defend; the landlord, his rights vested in the soil; the tenant's rights to which the investment of his capital in the improvement of the soil, gave him a just claim; and the labourer his right from his production, by his labour, of property. (*Cheers.*) These classes being thus closely and indissolubly connected together, it was necessary for their common welfare; it was necessary for the safety of the country that they should on this occasion, combine together. (*Cheers.*) He wished to know whether this was a new principle now proposed for the first time; or whether it was not a principle which in other words, had already been acted upon by this society; the society said, "That every class interested in the permanence of the country's greatness, should come forward once more to exert their common energies to avert impending evils," (*hear, hear*) and without this union, it was utterly vain and hopeless for them to expect to succeed; but with such a union, he was confident that, whatever the views and wishes of Parliament might be, whatever ministers his Majesty might be pleased to call to the administration of affairs, the success of the agriculturists was certain. (*Hear.*) But it was not only necessary that they should embody great masses; (*hear*) they must have the weight of numbers; (*hear*) an object of importance, and which was daily recognized by all the other interests of the country, and which gave them that preponderance they had hitherto possessed. The assistance of

the labourers was essentially necessary in the operations of this society. Suppose it should be determined, as in the year 1823, to raise prices by an increased circulation; that would be utterly out of their power, unless they were supported by the labouring classes. If they adopted any measure calculated to raise prices, it was their bounden duty to take most especial care that the interests of the labouring classes should not be injured, but that to the utmost of their exertions they should be promoted. (*Cheers.*) If they took the other alternative, they would find themselves unable to carry that measure without the concurrence and cordial co-operation of the agricultural labouring class. It was not only this class that had a common interest; he considered that all classes of the community had a common interest, and that no one of them could profit at the expense of the other, in this great crisis; (*cheers*) and all of them should zealously unite for the common welfare. This was also requisite, to ensure the safety of the country; for there was no man who contemplated the present condition of the country, who viewed and appreciated the difficulties and dangers by which it was surrounded, who most not feel that circumstances might arise, that times were approaching, in which a powerful union could alone be effectual in preserving the tranquillity, and securing the safety of the country. (*Cheers.*) His Lordship then read his resolutions, and proceeded to say,—he admitted that, since the commencement of the present year, there had been a considerable rise in prices; but they must recollect that these prices rested on a most insecure basis, (*hear*) and the delusion would soon be apparent to the country. He asserted this in the presence of many better qualified from their experience than himself, to speak upon the question; still he would say, that if the present prices were maintained along with the present standard of currency, there would, as far as he could form a judgment, be a panic, such as occurred in 1825, when, according to the late Mr. Huskisson, this country was within twenty-four hours of a state of barter, naturally the precursor of a state of convulsion, or national bankruptcy; and if to avoid that danger the currency was contracted, they would then be open to low prices, and perhaps, a hundred thousand persons would be deprived employment. (*Hear.*) These considerations would not, he knew, have any weight with the political economists, for he was told by an honourable member of one of the houses of Parliament, in the middle of January last, when corn was 36s. per quarter, "that if the land could not be cultivated at that price, the land must go out of cultivation." (*Hear, hear.*) This gentleman was a landed proprietor, but he (Earl Stanhope) believed he was a larger fundholder. (*Hear.*) But had this gentleman any right to tell his tenants that their capital should be rendered unproductive?—(*hear.*) that their labours should be of no avail? (*hear.*) Had he any right to tell the labourers on his estate that they should be deprived of employment? (*Hear.*) He would say that they were landlords, tenants, and labourers, called upon to act as one man in protection of their common interests. The noble Earl here observed, that he would first submit three of his series of resolutions—on the third alone, of which, there might be some diversity of opinion. It was as follows:—"That it would be utterly impracticable to effect such a union without protecting the rights of industry, for which purpose, as well as from every consideration of justice and humanity, it is necessary to repeal the arbitrary, unconstitutional, and oppressive enactment, (*uproar, and immense cheering,*) of the New Poor Laws, (*renewed immense cheering,*) and substitute in their place a better system." (*Reiterated cheers, with considerable disapprobation.*) The resolution spoke of the "rights of industry." He had been asked—"What were the rights of industry?" He would say the right of every labourer to a full, free, and undisturbed possession of his labour. (*Cheers.*) The labourer had a right to require employment to be found for him, and that he should be sufficiently paid for that employment. (*Hear.*) This was a principle that should be held sacred; they would find it was from the highest of all authorities—that of the Holy Scriptures. (*Cheers.*) It was

there said "The husbandman that labourereth must be the first partaker of the fruits." This principle was recognized in the olden and better times of the English constitution; a principle proclaimed in the reign of that sovereign, whose name had been transmitted with glory to succeeding ages,—that principle was recognized by the 43rd of Elizabeth; (*hear, hear,*) that statute declared the poor should be provided, if necessary, with employment. When he heard so much against these poor laws, that had existed for two centuries with so much benefit to the poorer population, and so much in favour of the great improvements effected in them by the political economists, he was inclined to observe to them "You have subverted the prosperity of the country, (*cheers,*) by improvements in machinery you have deprived the labourers of their employment (*cheers,*) and you have thus reduced the county to pauperism, and when in consequence of this, pauperism reaches an alarming height, is it fair to cast the blame on those who proposed the statute of 43 Elizabeth?" The political economists had, by their improvements, (*hear,*) induced a state of pauperism, and had then sought its cause in a law which was repealed to make way for one of their improvements—the New Poor Law. (*Hear, hear,*) He had in his place in the House of Lords declared, that the poor rates did impose a grievous, and almost intolerable burthen falling almost exclusively on the owners and occupiers of land; but he had not urged this for the purpose of abridging the comforts of the poor (*cheers*), it had been the object of a long life with him to improve their condition; he had urged it in order that Parliament should be induced to retrace those steps that had created the pauperism; and if he wanted any confirmation of his opinions on the necessity of rendering the poor comfortable he should find it in those publicly expressed in Leeds, by a gentleman who he was proud to call his friend, he meant Sir John Beckett. In speaking of this subject his friend observed, "I say that peace at home means contentment, and unless we can establish such a system of things as will afford men a fair remuneration for their labour, and enable them to maintain themselves and their families in comfort, there can be no peace at home; there never will be peace at home, there never ought to be peace at home." (*Immense cheering.*) The new Poor Laws, to which he (Earl Stanhope) had several times referred, had been passed into a law on the recommendation of one who had been considered a friend of the productive classes, (*hear,*) he alluded to Lord Brougham. (*Hear, hear.*) In one expression of Lord Brougham's he entirely concurred, but in a sense totally different to that which he conveyed: his Lordship said, "that all property was shaken to pieces, and that the time was fast approaching when it should be no more." He (Earl Stanhope) concurred in that sentiment, (not as Lord Brougham meant it, when he said that the times were approaching in which he might become one of the paupers in the county of Westmoreland) but he believed that property had been thus shaken by the measures which Parliament had so erroneously adopted; and from such an impending evil nothing but a union among the agriculturists could deliver the country. (*Cheers.*) When the Poor Law Bill was under discussion the Marquis of Londonderry, in his place in Parliament, told the House of Lords that "if their Lordships passed the bill they would lose their estates, and deserve to do so." (*Cheers.*) Along with the Poor Law Bill the toleration of the introduction of machinery by government had injured the labouring man; and as long as the present currency existed, and as long as free trade existed, the labourer would continue to be robbed by machinery. The political economists said, that the new Poor Law worked well. (*Hear.*) Where did it work well—for whom did it work well? (*Cheers.*) Did it work well in any district—(*loud cries of "Yes, yes," and "No, no"*) where there was a deficiency of employment? (*Hear.*) From his knowledge of the county of Suffolk he could say that the state of the poor there was most appalling; Cambridge was equally so. His friend, the President of the Cambridge Association, when examined before the Com-

mittee of the House of Commons, stated that a district in that county was in such a condition, from the privation of the labourers, induced by the New Poor Laws, that he or any other farmer could in 24 hours put the whole of that district into a state of revolution. (*Hear.*) This bill established for the first time in the history of this country an arbitrary and unconstitutional power; it had established a power that the king did not enjoy; it made, altered, and annulled laws, (*hear*) and handed over to the power of three commissioners all those who were reduced to poverty, and they could give or withhold relief as they thought proper, and in or out of the new prisons. Such an arbitrary, such a despotic and unconstitutional power had never been exercised in this country, and never ought to be allowed in any country. (*Cheers.*) These commissioners were allowed to delegate their power to assistant-commissioners, distributed through the country, ruling the people like so many viceroys, treating them as so many subjects under a Turkish tyrant, and sinking the nation to the level and degradation of a province. (*Long continued cheering.*)

Several gentlemen rose to order, and Lord Wynford was understood to say that he would not have become a member of this society if he had known it was to be open to discussion on the Poor Laws.

EARL STANHOPE resumed. Their (the Society's) proposition stated that the distress of the country fell heavily on a portion of the community, composed of landlords, tenants, and labourers, and if the labourers were effected by the Poor Laws he thought he was entitled to speak upon it. (*Cheers.*) Where, he would ask, did the Poor Law Act work well? (*Cries of, in Suffolk and elsewhere.*) When a reduction of rates took place in consequence of employment it was then said to be the effect of this measure. He knew that in some places where the new law had been introduced the rates had been raised. (*Hear.*) The great increase of rates was to be ascribed to the want of employment; and under the present law, the labourer, if reduced to distress without any fault of his own, could not claim that relief which he (Earl Stanhope) contended he had a right to, and that could not be refused without injustice; and whether idle or industrious, sober or otherwise, he was conveyed to one of the new prisons. (*Hear, hear.*) In the Winslow Union in Buckinghamshire there was an old soldier who was taken prisoner by the French at the battle of Corunna; he was several years in a French prison, and this man said he would prefer such a prison to one of the new workhouses; that the provisions of the prison was preferable to that of the workhouse. (*Hear, hear.*) The country was told that this measure worked well. (*Hear.*) But did it work well in the manufacturing districts? if it had been so beneficial in the agricultural districts, why had it not been introduced into the others? Was it because the member for Birmingham (Mr. Attwood) who was at the head of the political union, said he would not allow it to be introduced among them, and if attempted he would oppose the introduction, whatever means might be taken to enforce it. This new law shook all property to pieces, because it destroyed the property that had hitherto been considered sacred, he meant that the property of every labourer was his labour. (*Hear.*) The bill was a revolutionary bill, and he was anxious that this society should warmly and zealously protect the cause of the Agricultural labourer, and by so doing ensure their forbearance from acts of violence and outrage which no man would more deeply deplore than himself, and which no man would more zealously endeavour to prevent. (*Cheers.*) But if the labourers felt that they had no protection, they might have recourse to that which he would not particularly advert to; but when the day of trial should arrive he should, in the language of his learned friend, say of those who supported the measure, "May God send them a happy deliverance." (*Cheers.*)

These resolutions, having been seconded, were carried.

"That it is indispensably requisite to form a close and cordial union of all the agricultural classes, landlords, tenants, and labourers, for the purpose of pro-

moting their common interests, of defending their just rights, and of ensuring the safety of the country.

"That without such a union it would be impossible for them to obtain that redress to which they are justly entitled, and the adoption of those measures which would prevent national bankruptcy, anarchy, and revolution.

"That it would be utterly impracticable to effect such a union without protecting the rights of industry; for which purpose, as well as from every consideration of justice and humanity, it is necessary to repeal the arbitrary, unconstitutional, and oppressive enactments of the new poor law bill, and to substitute in their place a better system."

The noble earl whilst reading the last of these resolutions was frequently and loudly interrupted by a considerable number of persons, and when his lordship was about to enter into an argument upon the merits of the poor law amendment act and its debasing and degrading effect,

Mr. BRANFILL stepped forward and spoke to order. He said that when he had joined the association he was informed that it was established for the sole purpose of advancing the interests of the agriculturalists, and that all party and political matters were to be entirely excluded. Could he for one instant have imagined that political topics would have been introduced, he certainly should not have become a member. He submitted, therefore, that the noble earl was out of order in pursuing the course of argument he appeared disposed to launch into. (*Loud cheers.*)

Earl STANHOPE was not intending to advance a single observation with regard to the new poor law bill other than was absolutely necessary to show that its workings were most prejudicial to the agricultural interests. In reply to what he had heard from others, that the system worked well, he would ask where had it worked well? He would ask in what district had it worked well? (*Loud cries of "Suffolk, Essex, Hertfordshire, everywhere."*) He would ask also for whom it had worked well? He denied that it had worked well. ("No, no," "yes, yes.") The noble earl was then about proceeding with this line of argument, when

Lord WYNFORD said, in speaking to order, that had he thought it was intended by the society to embark in a discussion upon the merits or demerits, of the poor law amendment act, he never would have enrolled himself as one of its members. (*Great cheering.*)

Earl STANHOPE with some warmth of manner went on to deny that any reduction of the poor rates was in any way to be attributed to the application of the New Poor Law Bill, and to assert, that where any such a diminution of pressure had arisen in agricultural districts, such relief was solely ascribable to the fact of the labourers being more generally employed. The bill was unconstitutional. It was a most revolutionary measure. (*"Hear, hear," and cries of "Yes, yes," and "No, no."*) His lordship concluded by moving the three resolutions, prior to going on with the others.

Mr. BERNARD, in seconding the motion of the noble Earl, was about to launch out into subjects foreign to the object for which the meeting had assembled, when he was called to order by

Lord WYNFORD, and several other members of the society. The noble and learned lord said, that from the instant they permitted themselves to entertain discussions of a political character the society would become an illegal society. (*Hear, hear.*)

The Duke of NEWCASTLE hoped Mr. Bernard would see the propriety of avoiding all questions except those which were immediately and strictly agricultural.

Mr. BERNARD, on again attempting to renew his former intended course of argument, was silenced by cries of "Chair, chair," "Order, order." The hon. gent. at length sat down, after declining, as we understood, to second the motion of the noble earl, in consequence of not being permitted to state the grounds by which he was actuated.

After some further discussion,

Lord WYNFORD moved an amendment upon the resolutions of the noble earl to the effect "That in the opi-

nion of that meeting no further public proceeding should be taken on this subject until the committees of the two Houses of Parliament shall have made their report." In submitting this resolution, his lordship said, that the evidence which had been given before the committee, of which he had the honour of being a member, had furnished an abundant case to entitle the agriculturists to relief (*loud cheers*) and it was his intention to move either a series of resolutions founded thereon, or to introduce a bill upon the subject. (*Hear.*)

Lord DARLINGTON seconded the amendment, which, after some observations from Mr. Spooner, and Mr. Allnutt, was put and carried by a large majority amidst loud cheering.

Earl STANHOPE and two other gentlemen, in consequence of the loss of his motion, then withdrew their names from the list of members, his lordship stating that his exertions and best wishes, although not now a member of the association, would be exerted in favour of the poorer classes of agriculturists.

A vote of thanks was given to his Lordship for his former unwearied and zealous exertions in the cause; and also a vote of thanks to the noble chairman for his impartial conduct in the chair.

## ON HEDGE-BIRDS, WHICH ARE ALLEGED TO BE MORE OR LESS DESTRUCTIVE TO FIELD OR GARDEN CROPS.

(FROM THE QUARTERLY JOURNAL OF AGRICULTURE.)

In making a tour in the north of Ireland, towards the Giant's Causeway, about twenty years ago, the want of hedges struck me as a remarkable characteristic of the face of the country, though it did not, as I afterwards found, appear quite so naked in this respect, as the extended corn-fields of Picardy, or the broad and beautiful holms on the Rhine, through which I have journeyed for days together, without seeing the semblance of a field-hedge, to break the sameness of the level landscape, or afford a resting-place for a flight of sparrows, or a nest-nook for a linnet or a chaffinch. On the Continent, indeed, there are trees in plenty—generally fruit trees—in rows all along the roads, and planted at wide intervals among the corn,

Like giants that in silence stand,  
To sentinel enchanted land;

and in this there is no resemblance to the treeless as well as hedgeless nakedness, that struck me so much on my first visit to Ireland, contrasted with the beautiful woods and fine hawthorn hedges of my native country.

As there are good reasons for forming hedges in Scotland and England, where indeed they become a serious item of agricultural expense, either to the landlord or the tenant, so there are, no doubt, equally or nearly as good reasons for the want of hedges in Ireland and on the Continent. And we ought never to condemn any practice hastily, without knowing all the particulars that led to its adoption,—of which the following is so striking an illustration, as to be well worth repeating. "Many years ago," says the sensible writer, "on looking over a farm in Derbyshire, in company with the occupier, we went to see his plough at work breaking up a piece of lea ground. I at once condemned the farmer's practice of yoking five strong horses *at length*, and told him I thought two

such horses yoked *a-breast* would answer the same purpose. The good-humoured farmer, Englishman-like, did not seem offended by my petulance, but coolly answered, 'They are not horses, they are mares.' I laughed at the distinction, but he explained himself in a very satisfactory manner, and to my great confusion. He said, I have a cheese dairy, and keep a large stock of cows; more than half my farm is in permanent grass for cow pasture and mowing for hay; the remainder is under a regular rotation of arable culture. I keep four working mares, and one to ride and draw occasionally. I might do with fewer at some seasons, but I want so many in seed-time, in hay and corn-harvest, and for working the turnip fallow. Three of the mares you now see are in foal, and I expect to make £70. or £80. of their produce when a year and a half old, and that is about my annual return. The mares are now near their time of foaling, easy work does them good, and they are less liable to injury worked *at length*, than if yoked *a-breast*. Neither is there so much loss of power as you imagine. The hill where they are ploughing is steep, and the lea tough, yet they make a furrow both ways; whereas a pair of horses, yoke them as you will, could only draw down hill, and slide the plough up without one.' I thought the explanation so satisfactory, and the reasoning so sound, that I immediately acknowledged my error, and apologised accordingly. That was a good lesson to me. It taught me to be more careful in future of censuring without investigation.\* On the same principles we should be cautious of blaming our neighbours for not planting hedges.

On the Continent, hedges or fences of any sort are by no means so indispensable as in this country, in consequence of the different mode pursued there of feeding cattle. In the hedgeless districts of France and Germany, there is no grazing,—no feeding of live-stock out of doors,—no meadows covered with sleek well-fed cattle, as in Holland,—all the farmers' live stock being closely confined in stables, out of which they are so rarely seen, that a diligence-tourist might ride hundreds of miles without suspecting the existence of a cow or a sheep in his whole route. In Normandy, indeed, they frequently feed off tares or clover by tethering the cows in shifts; and in Picardy, I have occasionally seen a boy or a girl leading a cow with a rope, to graze by the road-sides, but in Germany never; for the cottager, who may have only one cow, prefers cutting the grass from the road-side or in the woods with a bill-hook, and carrying it home to the byre.

The same system of stall-feeding is pursued in the most extensive concerns, and hence it is rare to see natural grass, except on the hills or in the glades of forests, while there is always, in the arable grounds, considerable breadth of clover or turnips, or both. Between Heidelberg and Carlsruhe I observed, in the autumn of 1832, a uniform and excellent crop of broad-cast turnips, all of course intended for stall-feeding, extending from seven to ten miles along the road, with scarcely a furrow of distinction, much less a hedge or a ditch to serve as a landmark of proprietorship or tenancy. Under such circumstances, consequently, so far as cattle are concerned, hedges or any other fences could be of no use.

The case is different in Ireland, where grazing is practised, but the fences are all turf or stones,

or both, with sometimes a few straggling furze bushes along the coping, though whether these were ever continuous, so as to merit the name of a hedge, appears in most cases to be more than doubtful. These furze bushes, as they commonly appear in the Irish fences, can certainly serve none of the purposes of a hedge, no more than the few feet of nicely clipt hawthorn which a worthy Englishman, the late Rev. Mr. King of Bandon, shewed me in 1819, in his garden, as the only fair specimen of an English hedge in the south of Ireland,—planted indeed by himself, in reminiscence of Old England.

On a market-day at Ballymena (I think it was) in Antrim, I mingled with the farmers to learn something of their modes of management, and amongst other questions, I asked why they had no hedges around their fields, when, together with economical considerations, influenced in most cases by the nature of their tenures, they all agreed in reprobating hedges, which they said were of more advantage to the sparrow than to the farmer. The same notion of hedges affording harbour for birds destructive to corn, is mentioned by the Abbé Rozier\* as prevalent in France; and it is probably more or less diffused in all countries, though for want of precise knowledge, it is often considered a much greater evil than it really is, even where the hedges are, as it should seem, constructed on very purpose to cover an unprofitable breadth of ground with all sorts of briars, brambles, and brushwood, as is but too commonly the case in the vicinity of London, and elsewhere in England.

Looking at hedges, then, in this point of view, it may not be altogether without use or interest, to investigate the nature and the probable extent of the injuries which they may or may not occasion, by harbouring birds of different species. For this purpose, it will be indispensable to distinguish the sorts of birds most usually frequenting hedges, at seasons when crops may receive injury; and, what is of no less importance for understanding the subject, to investigate carefully the sorts of food eaten by each species. It would be as preposterous, indeed, to accuse the wrens and redbreasts about a garden, of feeding on the flowers or the pot-herbs; or the lapwings or cuckoo on a farm, of grubbing up the young wheat or devouring the seed of newly sown barley, merely because they are found there, as it would be to accuse a hare of hunting and worrying sheep, or a fox of stealing the nest-straw of the poultry-house for a similar reason. Yet are accusations equally erroneous very commonly made by farmers and gardeners, very well informed in other respects, but unacquainted with their habits and peculiar food, against the wild birds found in fields and gardens.

An excellent observer, the Rev. W. Bree, has well remarked, that "when any mischief is done in the garden, the orchard, the plantation, or on the farm, we are very apt too hastily to lay the blame on such animals as may happen, in pursuance of their usual habits, to be occupied in or near the spot where the mischief takes place. Frogs and toads have, before now, been accused of eating the strawberries, because they are often met with among the strawberry beds." Proceeding on similar mistaken notions, an orchardist of Pontefract, as we are informed by Major, in 1823, destroyed many lady-birds as injurious to his crops, because he found the crops injured, and the lady-

\* Quart. Journ. of Agricult. v. 36.

\* Cours d' Agriculture, article HAYE.

birds there; whereas it is not difficult to prove that lady-birds never touch any vegetable food, any more than frogs or toads devour strawberries. I had some lady-birds sent me from a distance, two or three years ago, by a gentleman who found them on his peach-trees, and fancied they were eating the leaves, to have my opinion of their destructive propensities!

As our subject naturally divides itself into three parts, inasmuch as birds are decidedly destructive, partially destructive, or not destructive at all, though alleged to be so, it will be convenient to treat of the three kinds separately, beginning with the last, of whose habits and food gardeners and farmers (it is presumed) know much less than they do of the two first.

1. **NON-DESTRUCTIVE HEDGE BIRDS.**—At the outset, it is necessary to remark, that many birds not in the least destructive to the ordinary crops of a farm, often commit considerable depredations in orchards and gardens, nay, the latter so far from being injurious to agricultural crops, may prove of no little service, as we shall afterwards see.

1. *Insectivorous Hedge-Birds, which do not eat Fruits or Seeds.*—The hedge-birds, which live exclusively on insects, and never touch fruits, much less seeds of any kind, are but few in number, and like the larger carnivorous animals, are thinly scattered, with rare exceptions live solitary, and do not assemble in flocks. It will not be requisite to mention each of these birds in systematic order, but I shall advert to the best known and most abundant species.

One of the most exclusively insect-eating birds, not uncommon in most parts of the empire, is the gold-crested wren (*Regulus cristatus*, Ray), the smallest of the birds of Europe, measuring only three inches and a half in length, including the tail, which is an inch and a quarter. It cannot be mistaken for any other bird, being of a greenish-yellow colour, while the common wren is of a rusty brown, with lighter bars and spots; and though the chaffinch and the hay bird are yellowish-green, neither of these has the golden-yellow on the crown of the head, which at once distinguishes this pretty bird. A less conspicuous distinction is formed by two white bars, similar to those of the chaffinch, across the wings, caused by the greenish feathers of the wing coverts being tipped with white.

The gold-crested wren seems to delight most in evergreen shrubs and trees, particularly the spruce fir and cedar, though it is often found where there are few of these, and, even where there are plenty, it never fails to make daily excursions along the hedges in the vicinity, flitting about through the thickest branches, and uttering its small tinkling chirp of *tee, tee, tee*, at every change of its position. It is not in the least afraid of being approached, most probably owing to its being very near-sighted—a peculiarity of vision no doubt designed by Providence for enabling it the more readily to distinguish the minute insects on which it exclusively feeds. It may, indeed, be easily approached near enough to see its colours distinctly, or even to catch it with a fishing-rod tipped with bird-lime. In consequence of its minute size, it is rather impatient of cold; yet it does not appear to migrate, except perhaps very partially, even in Scotland, where it remains during the severest winters, one or more families of the tiny little creatures keeping each other warm in cold frosty nights, by huddling together as closely as possible under the thickest branches of a spruce or silver fir, or of a furze or ivy bush. They are said, however, to migrate from Shetland and the Orkneys. It is not a little singular, that though they stand the

hard frost out of doors, yet exposure to frost kills them when tame, as if the protection of a house rendered them less hardy. They are greatly more abundant in Scotland than in England, and in some districts where fir plantations have been made, they have multiplied prodigiously within my own remembrance.

No farmer, I should think, would be apt to accuse the gold-crested wren of injuring his crops; but when a gardener unacquainted with their habits and food, sees them flitting about among his espaliers, his wall-trees, or his rose-bushes, he will be apt to think they are busy eating the blossom buds, as some other birds are well known to do; while on the contrary, they are doing him essential benefit, by picking up every straggling plant-louse (*Aphis*) and bud-weevil which they can meet with.

The species which come nearest to the gold-crest in appearance and habits, are the wood-wren (*Sylvia sibilatrix*, Bechstein) and the willow-wren or hay-bird (*Sylvia Fitis*, Bechstein), the latter well known in Scotland by the name of the *basket leddy*, given to it from its elegant form and pretty colouring. The chaffinch (*Sylvia loquax*, Herbert), also ranks with these as an insect-eating bird, but is not sufficiently common to merit attention here. The hay-bird is only five inches and a quarter in length, the wood-wren a quarter of an inch more, and the chaffinch nearly half an inch less. All the three are greenish-yellow, darkest on the back and wings, and lightest on the breast and belly,—the young birds being much brighter in colour than the old ones, a circumstance not usual among birds. Some say the chaffinch remains with us all the year,—the other two are certainly birds of passage, arriving late in April, or early in May, and announcing their arrival by their pleasing notes, those of the wood-wren being shrill, short, and hurried, accompanied by a peculiar shaking of the wings,—those of the hay-bird consist of a rather continuous, soft, plaintive warble. The hay-bird uniformly lines its snug little nest with a profusion of loose feathers; the wood-wren on the contrary, never uses feathers, but lines neatly with hair.

The wood-wren is most frequently found among tall trees; and among “hedge-row elms,” as Milton calls them, and other tall trees, in hedges it may occasionally be seen. The hay-bird, again, delights in small copsewood, and in what may well be termed copsewood hedges, so common in England; while it is no less common in shrubberies and gardens, often building in the strawberry-beds, for though it does not seem to care about human neighbourhoods, being found in the most wild and solitary places, it is by no means shy, and will not only allow itself to be approached, almost as near as the gold-crest, but will even make its way into green-houses, and, when the windows are left open, into rooms, where plants are kept in pots.

The chief food of these three species consist of small flies, or small caterpillars, such as roll up the leaves of trees and shrubs, and particularly the rose-leaf roller (*Lozotania rosaria*) or “worm in the bud,” together with the whole of the most destructive species of plant-lice (*Aphides*).\* Where the birds are plentiful, accordingly, they may prove of no little service to the farmer in thinning, on their first appearance, wheat-flies, the blue-dolphins, the hop-flies, and the turnip or the pea-plant lice. This is of great importance, for one of these insects killed at the time of their first appearance, will prevent the breeding of several thousands. After the breeding has proceeded to the second and third generations, our little birds

\* Quart. Journ. Agricult. Sept. 1835, p. 197.

are too few in number, even with their voracious appetites, to keep them down. Yet with all this decided benefit, farmers unacquainted with their exclusively feeding on insects, are but too apt to class them without distinction among "birds," as if all birds fed alike, and were ready and eager to devour whatever crop they might find cultivated in the fields.

Gardeners are even more prejudiced, against the hay-bird in particular, than farmers usually are, and in some parts of England it is opprobriously termed the *cherry-chopper*, from a notion that it devours the cherries. That this bird is very frequently found on cherry-trees, is most true, and, if watched, it may be seen busily picking among the fruit, though, as it never eats fruit of any kind, it does not touch the cherries, but is in pursuit of the destructive cherry plant-louse, a species which is particularly injurious, and which commences its ravages on the cherry-leaves about the end of April, when the hay-bird arrives, as if Providence had ordered the insects to multiply at this season to supply the hay-birds with food. No more does the hay-bird ever taste one of the strawberries in the bed where it may have built its nest, nor the peas in the adjoining kitchen-garden, its bill indeed being too slender to bruise peas, and its gullet too narrow to swallow them unbruised, even were it inclined (as it assuredly is not) to attack them. White of Selborne, therefore, did not manifest his usual accuracy of observation, when he said, that the willow-wrens, meaning the hay-bird and chaff-chaff, are horrid pests in a garden, destroying the peas, cherries, and currants,—an opinion which he no doubt adopted without due examination from the gardeners. Had he ever procured tame ones, as I have had, and tried them, when very hungry, with cherries, currants, and strawberries, and with green peas both raw and boiled, he would have soon had ocular demonstration that they would rather starve than eat fruit or seeds. So far, then, from persecuting and killing these birds, as gardeners so frequently do, every means should be taken to encourage them to breed, by protecting their nests.

Mr. Knapp correctly says of the hay-bird, that "he comes in company with his travelling friends, not as a partaker of their plunder, appearing never to abandon his appetite for insect food: the species may change with the season, but still it is animal: he glides about our rows of peas, peeps under the leaves of fruit-trees for aphides and moths, continuing his harmless pursuit until the cold mornings of Autumn drive him to milder regions."

There is little fear of the nests of the next species to be noticed being taken or destroyed, for the nightingale (*Motacilla luscina*, Linnaeus), conceals her nest so carefully that it is rarely found, even where the birds are most plentiful. Nightingales themselves being usually "in shadiest covert hid," are seldom seen, and many persons spend their whole lives in the midst of hedges and copses where they abound, without knowing their appearance. The cock and hen differ little in size and colour, and are so like the female redstart, that the latter is often sold for a nightingale. Our northern readers who do not know the redstart, may be told, that, except in being a trifle larger, the nightingale is very like a redbreast in form and colour, with the exception of the breast, which instead of being orange is whitish, and the back rather more brown or rusty than the redbreast.

The nightingale is not found in Ireland, in Cornwall, in Devonshire, in North Wales, nor in North Britain, seldom, indeed, farther north than Yorkshire, consequently the Scotch ballad of the Banks of the Dee, beginning

"'Twas summer and softly the breezes were blowing,  
And sweetly the nightingale sang from the tree,"

is in this respect erroneous. In the southern counties, the species abound, arriving in April, and frequenting thickets, hedges, thick brambles, tufted bushes near fields, and even gardens where there are many low flowering shrubs.

It is stated in some books, that besides insects, nightingales will eat berries and currants, but though they may certainly be taught to eat fruit, it is not natural to them, and they will rarely if ever touch it in a wild state, so that however numerous they may be, the gardener may rest assured they will do his crops no injury, while they will do him considerable service by devouring numbers of caterpillars and grubs, as well as the moths, butterflies, and beetles from which these are produced. Even if nightingales should, as we are convinced they do not, purloin a few currants, they repay them well by the loveliness of their song, in which they far excel all the other woodland songsters of Europe, and are only, it is said, surpassed by the mocking-bird of America.

There are three pretty birds termed chats—the whin-chat, the stone-chat, and the wheat ear, which may in some sense be ranked as insectivorous hedge-birds, the stone-chat particularly, which is fond of hedge-rows. This, though the name is similar, is not the bird termed in Scotland the *stone-chacker*, this being the wheat-ear of the English writers. The male stone-chat is readily distinguished by having the head, throat, and tail of a deep black, the breast and belly reddish, while the female is brownish-black, with the throat black and spotted with whitish and reddish marks. The whin-chat, again, is not so gaily coloured, but may be distinguished by its general rust-red colour, and by a white line from the nostrils passing above the eyes as far as the ears. This species frequents cabbage-gardens and turnip-fields after the breeding season, and ought to be protected because it not only eats insects but small shell-snails, while it never touches fruits or seeds. The wheat-ear or stone-chacker (*Saxicola œnanthe*, Bechstein), which frequents corn-fields, building in the little heaps of stones gathered from the land, is equally beneficial in clearing the crops from insects, without levying any contribution for its services.

The wagtails, particularly the yellow one (*Motacilla flava*, Linnaeus), may be observed in corn-fields as frequently as most species, though they are more usually seen running near drains and furrows than about the hedges. The wagtails do not touch fruits nor seeds, and feed wholly on insects, particularly gnats, midges, and other flies that tease cattle, and for the purpose of catching these insects, the wagtails are not afraid to run round cows in the pastures "close up to their noses," as White correctly states, "and under their bellies, availing themselves of the flies that settle on their legs, and probably finding worms and grubs that are roused by the trampling of their feet." Wagtails will, for the same reason, follow the plough to feed upon the worms and grubs turned up in the furrows, and in this way, no doubt, thousands of wire-worms and other destructive vermin are effectually destroyed.

The tree-pippit or titlark (*Anthus arboreus*, Bechstein), is another very common hedge-bird, which lives exclusively on insects. It is not the bird termed the *titling* or *moss cheeper* in Scotland, which is the meadow-pippit (*Anthus pratensis*, Bechstein), but this may also be seen on hedges, on the confines of moors, though it seems to like best to take to the bent or the open heath. These birds much more resemble the wagtails than the larks in their form

and habits, though their colours are similar to the larks. They never hop with both legs like a sparrow, but when they walk or run, put one leg before the other like the wagtails, and like them also they move their tails up and down but not quite so much, — a habit which the sky-larks and wood-larks are not observed to have.

In the autumn, when the pippits are preparing to depart for a warmer climate to winter in, they may be observed to be some times numerous (though they never congregate in flocks) in market-gardens and in cultivated fields, particularly along the southern coast; though in no case do they commit depredations on fruits or seeds, but busily search after the autumnal hatches of caterpillars and grubs, or the smaller flies and beetles which they find among the herbage.

As the titlarks, chats, and wagtails, together with the duncock or hedge-sparrow, are more commonly selected as step-mothers by the cuckoo, who is well ascertained to build no nest, and never hatches her own eggs, it may be proper to mention here, that the cuckoo is exclusively an insect eating hedge-bird. It is so shy and wary that it is not easily approached so as to be distinctly seen while sitting on a hedge or a tree, but it may frequently be seen on the wing, when it so much resembles the kestrel or sparrow-hawk, that the swallows and other small birds appear to mistake it, and buffet it with bill and wing till it again alights, when they leave it alone. Except from the popular saying in Scotland, that the cuckoo becomes hoarse, or ceases her monotonous note when she gets a bere-awn in her throat, I am not aware of this bird being accused of committing depredations on corn crops. The error (if error it be) may have arisen from the cuckoo becoming silent about the season that bere or barley comes into ear and shews its horns. As for the notion of the cuckoo ever feeding on the ears of barley, either green or ripe, it is certainly quite unfounded. Its chief food is the larger caterpillar, such as those of the buff-tip-moth, as well as the moths themselves, and butterflies, dragon-flies, and the like, facts which have been repeatedly verified by opening the stomachs of cuckoos that have been shot. Both the cuckoo and its young being very voracious eaters, so as to be scarcely ever satisfied, the number of destructive insects which they devour must be very great; and hence they ought to be protected by the farmer and gardener, as ranking among their best friends.

The common fly-catcher (*Muscicapa griseola*, Linnaeus) is one of the most decidedly insectivorous of all our hedge-birds. It is nearly the size of the duncock or hedge-sparrow, and not unlike it in colour, being rather lighter, with a few whitish streaks on the plumage. I had one in a cage with a number of other soft-billed birds, but it could never be brought to touch anything but insect or animal food, and uttered the most pitiful cries when a fly or a meal-worm was filched from it by any of the others. The fly-catcher differs considerably in his mode of hunting from several other species which take insects chiefly on the wing. Instead of keeping up a continuous flight like the swallow or the bat, the fly-catcher, like his fellow hedge-hunters the dragon-flies, chooses a station where he can take good observation of all the insects which may venture within his boundaries; generally the top of a gate-post, a stake in the hedge, a dead leafless branch, a tall stick in the middle of a grass plot, the projecting stone of building, or the naked spray of a tree. From such a station he will remain in constant activity the greater part of a summer's day, springing forth, catching a fly in the air, and returning to swallow

it, capturing one moment and resting the next to prepare for another. White of Selborne says it hardly ever touches the ground; but this does not agree with my observation, for I have frequently seen fly-catchers dart down from their watch-post to seize some unlucky caterpillars that had crept into view; and another species, the pied fly-catcher, which I had in a room full of birds not caged, would dart down in a moment on any insect thrown on the floor. It may be as well to mention that the fly-catcher is not the only bird that springs up from a fixed station to take flies on the wing, it being the common practice of the chaffinch, the black redstart, and several other birds; while the nightingale and the red-breast dart down in the way just described to seize insects on the ground.

The flusher or lesser butcher-bird, (*Lanius Colurio*), popularly termed Jack Baker in the south, is larger than a redbreast, but smaller than a thrush, and is readily distinguished by the reddish-brown colour of the back. It is very common in the hedges in some localities, where it builds a neat and large nest. Its chief food consists of beetles and flies, particularly the breeze flies which tease cattle, and even wasps and bees, and hence it may be destructive to hive-bees; but this is the only damage it does to the farmer or gardener, for it never touches fruits or seeds. When it is pinched for insect food, it feeds on field mice, lizards, and small birds, transfixing them as it does humble bees on a thorn, and tearing them to pieces. In houses much infested with flies, a tame flusher is a useful pet, for, leaving it at large in a room, it will soon clear it of the flies, and if a thorn branch be given it to perch upon, it will carry the flies thither and impale them on a thorn before eating them. To these many other hedge-birds might be added, such as the night-jar, the sedge-bird, the wryneck, the creeper, and the bottle-tit, none of which are in the least destructive, while from their feeding exclusively, or nearly so, on insects, they are of much service in diminishing the numbers of such as are injurious to field and garden crops.

2. INSECTIVOROUS HEDGE-BIRDS WHICH PARTIALLY EAT FRUITS OR SEEDS.—The common wren, popularly termed the Kitty wren, or the Jenny wren, is the first bird which I shall notice under the present division. Its diminutive size, and its tail perked up as if it were trying to imitate a well pleased dog, at once distinguish it from every other hedge-bird. Its habits are also somewhat peculiar, for though it flits up and down among the branches of a hedge, it rarely runs up and around the trunk of a tree like the creeper, (*Certhia familiaris*), nor does it usually get so high up as the tits (*Parus*), preferring the root branches and those which hang over water, where gnats and other night-moving aquatic insects lodge in the day time, overshadowed from the light. On these the wren banquets both in summer and winter, and may frequently be seen about hedges, barns, stables, farm-yards, walls, and piles of wood. It is said to eat small berries, such as those of the elder and small seeds, but it is certain that none of these constitute its staple food at any season, and so long as it can find a gnat or a small beetle, it will rarely touch them. From its being a prolific breeder, and the young, though so small, being voracious eaters, the wren must tend greatly to keep down the numbers of several sorts of destructive insects, particularly in gardens and orchards.

The hedge-sparrow or duncock (*Acceator modularis*, Bechstein,) although a much larger bird, is very similar in habits to the wren, and even bears some resemblance to it in its calls, and in the notes of its song. The common name of hedge-sparrow, or dyke-



sparrow is very inappropriate, inasmuch as it has little similarity to the sparrow, except perhaps in its sombre colours, and in its being somewhat omnivorous, as indeed is almost indispensable to all wild birds that have to shift for their food throughout our British winters. The dunnoek, however, is, by the form of its bill, distinctly an insectivorous bird, and any other food which it may be found to eat is rather accidental than otherwise. "When wild," says Dr. Bechstein, "the great varieties of things which serve it for food prevent its ever being at a loss throughout the year. It is equally fond of small insects, and worms, and small seeds. In spring it feeds on flies, caterpillars, grubs, and maggots, which it seeks for in the hedges, bushes, and in the earth. In summer it feeds chiefly on caterpillars; in autumn on seeds of all kinds and elder-berries; and in winter, when the snow has covered all seeds, it has recourse to insects hid in the crevices of walls and trees.\*"

On opening the stomachs of this species which have been accidentally killed, oats have been found along with other seeds; but this was in the winter time when their more natural food is scarce, and I do not believe that it ever eats a single grain of oats from the field in autumn, while insects are plentiful, or while berries may be procured. With respect to its depredations on gardens, these seem to be equally unimportant as its attacks upon oats, for though it would certainly not refuse a bunch of currants, provided there were no abundance of insects, yet it is not by any means a regular visitant in gardens, and prefers to hunt about among hedges and scattered low bushes in fields and commons. In winter it is more common in gardens and when it cannot find gnats or beetles, half benumbed as they then are with the cold, it will look out for the smaller seeds, such as those of pimpinell, speedwell, lychnis, or sweet-williams, which it may chance to find as weeds, or as ungathered in the flower border. The insects which it destroys must, I should think, most amply compensate for the slight loss it may occasion in picking a few chance currants, or a head or two of flower seeds; and therefore, far from it being proper to kill this "sober suited" bird, whose simple but agreeable song is one amongst the earliest indications of the return of spring and fine weather, the gardener would do well to protect it and save its pretty blue eggs from the thoughtless plunder of bird-nesting school-boys. Mr. Knapp is of opinion, that the dunnoek and similar insectivorous birds, when they cannot procure insect-food in winter, feed on the seeds of mosses, such as the hygrometer moss, which abounds both on walls and by the edges of gravel walks; but, if it were so, the birds would sometime or other be observed searching for the capsules, though it is not said this was observed, and certainly has never been remarked by me in a long course of very minute observations of the habits of birds.

Next to the house-sparrow, the redbreast is perhaps the best known and most universally diffused bird in this country, where it abides through the winter, though on the Continent, as well as in the Orkney Islands, it is only a summer visitant like the nightingale or the blackcap in the south, and is seldom seen familiarly about houses, making acquaintance with cottages for the purpose of procuring a few crumbs of bread, when forage becomes scanty and precarious in the "woods and wilds," where it has spent the summer and reared its young. The habits of the redbreast, though so well known to

every peasant, are very frequently misrepresented in books, and hence it is the less to be wondered at, that unfounded prejudice should exist against other species not so common as this universal favourite. It is said, for instance, that the redbreast always betakes itself to the woods in summer, and only comes near villages and farm-houses about the approach of winter. This has arisen from copying foreign observers, who are right so far as continental redbreasts are concerned, but wrong with respect to British redbreasts. "In summer," says Dr. Bechstein, "they must be sought in woods; they return to us about the middle of March, and stop for a fortnight in the hedges, and then proceed to the woods. In October they return towards the bushes which they busily search as they travel and proceed gradually to their destination. Some delay their departure till November, some will even remain here and there throughout the winter, but generally to their cost, as their life is usually sacrificed to these delays. Necessity then forces them to draw near to houses, dung-hills, and stables."

Now, it is evident from these remarks of one of the most accurate and original of the Continental naturalists, that our British redbreasts have very different habits. As there are few or no detached farm-houses in most parts of the Continent, the farmers all congregating into villages or towns, for the sake of society, in peace, and mutual protection during war, it may be thought that the redbreasts are deterred by the multitude of houses from approaching human neighbourhoods, while in Britain they learn sociality by degrees, first about detached cottages and farm-houses, which gradually embolden them to venture into villages and towns, and even into crowded cities, for they may be seen in the Temple gardens and the squares in the very centre of London—a circumstance which must appear not a little surprising to Continental ornithologists. I have little doubt indeed of the fact, though I cannot prove it, that some of them even breed in such places as the Temple Gardens, it being far from true that they all retire to the woods during summer.

Although the redbreast may occasionally purloin a currant from the garden or an elderberry from the fence, it is decidedly an insectivorous bird, as is proved, were it nothing more, by its ungregarious habits. Most animals which feed on vegetable productions, such as the sheep, are social and gregarious, on account of their food, as we shall afterwards see more fully illustrated: but, in the case of animals such as the fox, that feed on live food, which is usually more precarious and less abundant, it would never do to associate in numbers. The redbreast, therefore, is compelled to be unsocial to preserve his existence; for where redbreasts to congregate like house-sparrows, they would soon eat up all the worms and insects around their haunts; whereas one bird may contrive to subsist for months there. Instinctively aware of this, as it should seem, the redbreast will allow no intruder to remain within his chosen haunts without doing fierce battle; and, though such strife for territorial dominion rarely, I believe, proves mortal, it is always sufficiently galling to the defeated bird to make him depart, and to prevent his future inroads.

It would appear from some casual observations, that the redbreast, as well as the blackcap and similar birds, feed their young on a greater proportion of small fruit, when they can procure it, than they care to select for their own eating: for the redbreast has been seen to feed his young almost exclusively on red currants; but as the redbreast is a very early breeder, it is impossible to procure any small fruit,

\* Bechstein's Cage Birds, p. 321.

at least for the first brood, unless privet or bitter-sweet berries be had from the hedges. I once had a caged redbreast, which would eat bitter-sweet berries though no other fruit-eating bird would touch them.

The redstart is by no means so common a bird as the redbreast, which it greatly resembles in feeding, and in some of its habits, while the hen redstart may more readily be taken for a robin without the orange breast, than for a nightingale, as it often is. The cock redstart, however, when in full plumage, that is, during the breeding-season and after moulting, is much greyer in colour, with his white forehead, his deep blue-grey head and back, his black throat, and his shining red tail, rump, and breast. The blue eggs again may be mistaken for those of the dunnoek.

The food of the redstart is so similar to that of the robin, that the same remarks will apply; but it is more a garden bird than the robin, building most usually in the hole of a wall, and feeding its young with such insects or caterpillars as it can find in the bushes. As it eats both elder-berries or currants itself, though by no means so fond of them as it of worms and insects, it is very probable that it may feed its young with these as the redbreast and black-cap are known to do. It can rarely, therefore, do much damage; and, though a few currants may sometimes be purloined, yet there can be little doubt of the redstart always saving many more than it ever consumes, by devouring so great a number of the leaf-rolling caterpillars which so extensively deform and weaken the currant bushes in gardens.

There are several species of very pretty and active little birds termed tits or tit-mice for their peculiar motions, which will most appropriately fall to be considered here. The several species differ in size, in colour, and in a few other peculiarities, but nevertheless have a great similarity in their habits and in their food, and although they are certainly insectivorous, they are also much omnivorous than any of the preceding species. The most distinct of all is the bottle-tit, so called on account of the bottle-like appearance of its nest; but this species not being omnivorous, like the others, and living wholly on insects, I shall pass over with the remark, that nearly all which I have already said on the habits of the gold-crested wren will apply to it, except that the bottle-tit does not seem to frequent the northern parts of the island like the other.

The best known of the species is the tomtit (*Parus coruleus* Lin.), called in Scotland the *blue-whaup*,—a prying, impudent, fearless little fellow, capable of subsisting where almost no other bird could find food, inasmuch as nothing comes amiss to him of an animal or vegetable nature that he can peck into with his small black bill, as hard as horn, and as sharp as a broad awl. With this efficient instrument, he speedily breaks up the hard wing-cases of all sorts of beetles, and the envelopes of chrysalides and pupæ, and will (to get at these), dig into the bark of trees, like the woodpecker, and also into their buds. This, however, so far from being a destructive, is a very salutary habit, for the tom-tit does not, like the bullfinch, eat the buds themselves, but “the worm ‘i the bud’” within, discovered by a similar instinct to that by which the snipe discovers worms beneath the surface of the soil. Were the worm left in the bud, it would to a certainty destroy it by eating out the core, and not only so, but, when arrived at insect maturity, would become the parent of a numerous brood of other worms, each feeding on a bud, and in this way might do very considerable injury. The unwearied activity and perseverance of the tomtits, by

visiting and unworming an incalculable number of wormed-buds, must therefore prove very beneficial in gardens and orchards, destroying so many latent pests that no human penetration could discover. Equally beneficial are the services of this bird in discovering and devouring the pupæ and chrysalides in crevices and chinks of the bark of trees, for nearly all such found in these situations are from caterpillars which have fed on the leaves, and of course would give origin to similar caterpillars, were they permitted to undergo their transformations.

In consequence of their eating animal food, and having harder bills than the redbreast and the dunnoek, the tomtits often procure a meal from the bits of meat or sinew left on bones, though they prefer (when they can get it) any remains of the marrow, and next to that they like suet, and will not refuse lard or a bit of fat bacon. They will even try to loosen the teeth of a sheep’s jaw to see what they can find in the socket; and, for the sake of dainty bits of fat, will venture, with little fear, up to the very door-way of a butcher’s shop.

With respect to vegetable food, they are no less knowing, and prefer what is delicate as well as nutritive, being particularly fond of every sort of nuts and the larger seeds, which most resemble nuts in quality, such as the seeds of sunflower, hemp, peas, and the like. It may well be supposed that their small beak, hard though it be, is inadequate to manage such large seeds in the way they are shelled by the linnet or the bullfinch; but the tomtit is a most dexterous and ingenious seed-breaker. In the case of a pod of Prussian blue peas, for example, he will first peck a hole through the shuck or shaup to get at a pea, and this, when he has procured it, he fixes between his claws, while he hammers away at it with his bill till he gets at the mealy kernel, which he hollows out and devours, leaving the empty shell. He does the same with a hemp seed, and it is surprising to observe how small a hole in the shell will sometimes suffice to enable him to get at the whole contents.

Dr. Bechstein says that the tom-tit eats berries; and, from its omnivorous habits, this is not improbable; but I have never myself observed the fact; and, though I have seen it pecking holes in fallen apples (never in those still on the trees,) I am by no means certain whether this was not for the purpose of getting at some grub whose depredations had caused the fall of the fruit, or to obtain the seeds at the core. Be this as it may, the bird certainly commits very few or trifling depredations on any sort of garden-fruit; and, upon the whole, may be considered as producing more benefit than injury to cultivators; yet from some prejudice against the bird, an exterminating war is carried on against it by parish rewards in some parts of England.

“We still continue here,” says Mr. Knapp, “that very ancient custom of giving parish rewards for the destruction of various creatures included in the denomination of vermin. In former times it may have been found necessary to keep under or reduce the numbers of many predaceous animals, which, in a thickly wooded country, with an inferior population, might have been productive of injury; and we even find parliamentary statutes enacted for this purpose; but now, however, our losses by such means have become a petty grievance; our game-keepers do their part in removing pests of this nature, and the plough and the axe leave little harbour for the few that escape; and thus we war on the smaller races of creation and call them vermin. An item passed in one of our late churchwarden’s accounts was, ‘for seventeen dozen of tomtit’s heads.’ In what evil

hour, or for what crime, this poor little bird could have incurred the anathema of a parish, it is difficult to conjecture. In summer it certainly will regale itself with our garden peas, and shells or pods of marrowfats with great dexterity; but this, we believe, is the extent of its criminality. Yet for this venial indulgence do we proscribe it, rank it with vermin, and set a price upon its head, giving fourpence for the dozen, probably the ancient payment when the goat was a coin. However powerful the stimulus was then, we yet find it a sufficient inducement to our idle bat-fowling boys, to bring baskets of poor toms' heads to our churchwarden's door." These birds are not, however, most usually taken by bat-fowling, but by snares and other contrivances, of none of which the tom-tit is the least afraid. White of Selborne says, that, when a boy, he had known twenty tom-tits caught in a morning, with snap mouse-traps, baited with suet, and I have known considerable numbers taken in Scotland with horse-hair nooses or *girms*, baited with bread or hemp-seed.

There are two other species sufficiently resembling the tom-tit in size and general appearance, to be confounded with it in a boy's basket full of heads taken to the church-wardens, though readily distinguished by naturalists, and even by bird-nesting boys. These are the cole-tit (*Parus ater*) and the marsh-tit (*P. palustris*). Both of these have black heads, while the tom-tit's head is blue. The cole-tit, is also at once readily distinguished by its shining glossy black head and throat from the marsh-tit, with its dull not-shining black-head and chin. The cole-tit besides feeding on the same sorts of food as the tom-tit, though not so omnivorously, is very fond of pine seeds, on which account it most abounds in fir-forests and plantations. During the autumn and winter both of these come into gardens and orchards like the tom-tit, in families or small flocks, but do little or no injury. This is the only species of tit, I believe, which builds in holes on the ground, in preference to holes in trees and walls. The marsh-tit is perhaps more common in this country than the cole-tit, and a family of them may often be seen in the autumn attacking the ripe seeds of a sunflower, which, when they have discovered, they daily visit so long as a single seed remains, holding each seed firmly between their claws till it is neatly unkernelled. They may occasionally taste other seeds, but prefer those of the sunflower to every other, and this, I believe, is the full extent of their depredations.

The greater tit, oxeye, joe-bent, or willow-biter, as it is variously termed, has also a shining black head and breast like the cole-tit, but is readily distinguished from all the others by being nearly a third larger, while it is more gayly coloured with yellow, olive, and blue. The greater size and strength of its bill renders it more capable of digging into the crevices of the bark of trees than any of the preceding, and it is also fonder of climbing up the trunks of trees than the tom-tit, in pursuit of lurking grubs and beetles. In this way it is of essential benefit in orchards and gardens, and ought not to be begrudged a walnut or a filbert in reward for its services, and even were all the roots and seeds reckoned up which these birds may occasionally eat, they would be of such small amount as to be unworthy of consideration.

Having thus given brief sketches, whose general accuracy I can safely vouch for from personal observation, I shall proceed to the next division of our subject in the next number.

J. R.

(To be continued.)

## HOPS.

In the month of August last year we introduced to the knowledge of our readers, the fact that Mr. Crawshay had commenced at Honingham an experiment of sufficient importance to be fairly termed *national*—namely, to ascertain whether in the light soils of Norfolk hops can be cultivated, with an equal success as in those richer lands which have hitherto been considered to be their proper and peculiar habit. Mr. Crawshay planted two acres. We saw them in the above named month, and notwithstanding the drawback of a destroying wind, the bines were of a promise far beyond those of the same period of growth produced in the best old grounds in other counties.

This year he has made a noble plantation of something more than eight acres. It stands on the gently inclined side of a hill, which has been deeply trenched, levelled, manured, and prepared with the greatest care and judgment. It fronts the west, with a point perhaps to the south. The soil is *very* light, but it has, according to the proprietor's grand principle of gardening, been made as permeable as possible to air and water. Both plants and cuttings were put in with a degree of attention accuracy, and ingenuity which belongs only to his uncommon energy of character. Mr. C. has varied his experiment in all possible ways, and has made a register which will enable him to determine many very curious points connected with the growth of this most valuable of all the productions of British agriculture. Two misfortunes incident to the season and the ground have again assailed his infant project. The wire worm attacked the bines in the greatest and most destructive numbers, and the winds and raw air not unconnected with the drought (for what is more perishing than the north, north-east, and north-west winds, which so long prevailed?) aided in their injurious effect. But Mr. Crawshay's frame of mind is one which difficulties only excite; he has persevered resolutely, it is not to be doubted, with every reasonable hope that his constancy will be rewarded by success.

In his last year's plantation the bines have made an astonishing progress, many of them require poles of twenty feet, and they exhibit an exuberance of power by putting forth the supernumerary stems called technically *vipers*, and which the Kent hop growers tear off, and by shooting out laterals also with intense strength. If Mr. C. have committed an error at all, it appears to be in not having given sufficient credit to the powers of vegetation, assisted by the aid of such judicious cultivation, for the growth of the plants has outrun his provision for their support. Twenty-foot poles appear to be in most cases requisite, whereas his do not exceed the height of fourteen. The length of many already exceed their pole from three to six feet.

But Mr. Crawshay is content to watch the progress and meet the difficulties as they arise; he makes the principles of scientific gardening the foundation of his proceedings, and he carefully notes every circumstance connected with his plants of various ages and descriptions. Thus when time shall have allowed him to accumulate a sufficient number of facts, there can be no doubt but he will be able to throw a new and powerful light on the growth of this singularly variable as well as singularly valuable crop.

We have rarely enjoyed more pleasure in any inspection connected with the cultivation of the soil than in going over the hop grounds at Honingham with their enthusiastic and highly informed proprietor. The experiment is, we repeat, a most momentous one for Norfolk, and in no less a degree for the kingdom at large, since there is no crop that, when successfully cultivated, so largely repays the grower, nor is there any in which such vast fluctuation occurs. To ascertain why it is so—whether it depends on soil, season, or situation, whether on manures or on the manner and time of planting, the age of the plant or the subsequent treatment, and how the dangers arising out of these contingencies can be best avoided or the benefits most certainly ensured—these in all their bearings are the objects of Mr. Crawshay's expensive experiment. We can then of our own knowledge specify that thus

far he has proceeded, if not with absolute success, owing to the impediments assigned, yet with sufficient encouragement to ensure him we trust, at no remote distance of time, that superiority in this species of horticulture which he has so eminently attained in others.—*Norwich Mercury*.

## FLAX.

The plants chiefly cultivated in the north of Europe for their fibres for thread, are Flax and Hemp.

More than seventy species of the genus *Linum* are enumerated by botanists. They are of a natural order of plants, the *Linace*, distinguished by the tenacity of their fibres, the mucilage of their seeds, and generally by the beauty of their flowers. The most important of the genus is

### *Linum usitatissimum*—Common Flax.

It is an annual plant, growing with a slender upright stem, branched near the top. The fibres of the bark of this plant have been applied to the making of cloth from the remotest ages.

Being a native plant, it is sufficiently hardy to endure the climate of this and other northern countries. It has, indeed, a wide range of temperature, being cultivated, and for the like purposes, from Egypt almost to the polar circle.

Flax is an exhauster of the soil and farm, and more so when its seeds are permitted to arrive at maturity. When pulled green, its effects are less injurious; in which respect it follows the general law of other cultivated plants. But still, at whatever period reaped, it is thus far an impoverisher of the farm, that its stems yield no return in manure, and that its seeds only do so when consumed upon the farm.

The soils best suited to flax are those which contain a large proportion of vegetable matter. The stiff poor clays, and the inferior soils of a very dry and gravelly nature, are not well suited to it. The best flax soils in England are a few rich alluvial districts, in which it is still largely cultivated, and where it forms a regular part of the course.

In a rotation of crops, the best period for the introduction of flax is soon after the land is broken up from grass. For this reason it may be the first crop taken after grass or clover-lea, in which case the flax is a substitute for a crop of oats in the course. But it is not necessary that flax should be grown immediately on the breaking up of grass-land. It may be sown at any period in the rotation, provided the land is in a fertile state. But in all cases it is to be regarded as an exhausting crop, and not as equivalent to a restorative one; and these principles being attended to, the period of the rotation in which flax should be introduced will be understood.

Should the soil, for example, be suited to the four years' course, the rotation may be—1. Turnips, rape, or other green crop; 2. Barley or wheat; 3. Sown grass; 4. Flax.

Or the order in which the flax is introduced may be changed, and the course may be—1. Turnips, rape, or other green crop; 2. Flax; 3. Sown grasses; 4. Oats, or other corn-crop.

Under the latter course the seeds of the clovers and grasses are sown with the flax, in the same manner as with the cereal grasses; and for this purpose the flax is equally well suited.

Flax may be sown also after a pulse crop; but this is not usually a good preparation for flax, the land being apt to become foul when the flax is preceded by a crop of beans or peas. It is better to make it

succeed either the grasses, or such crops as potatoes, turnips, carrots, beet, or rape.

It is frequent, indeed, to make it succeed to a crop of corn. But this is an erroneous practice, for after a corn-crop, which has already rendered the land foul, a crop of flax tends to aggravate the evil. Sometimes, however, not only does the flax succeed a crop of corn, but it is succeeded by another. This practice is opposed to all the principles of a proper rotation, and should be proscribed wherever the flax-culture is practised in this country.

In warmer countries the flax admits of being sown before winter, but in the north of Europe the proper period of sowing is spring.

When land which is in grass is to be prepared for flax, it is always to be ploughed in the winter quarter, as if it were intended for oats, and as early as convenient, so as to receive the influence of frost to pulverize it before sowing. One ploughing only is required in this case; but the land should be very thoroughly pulverized by harrowing just previous to the seeds being sown.

When flax is sown after potatoes, turnips, carrots, rape, or beet, the land is to be ploughed immediately upon the removal of the crop. One ploughing is in these cases generally held to be sufficient, but the land, previous to the seeds being sown, is to be well harrowed, and rendered quite smooth.

The period of sowing in this country is in the month of April, and in the more northern parts from the middle to the end of April is considered to be sufficiently early.

The universal method of sowing flax is broadcast. It might be sown, indeed, in rows like any kind of corn. But in the case of corn, the object is to produce a large quantity of seeds, whereas in the case of flax the chief object is to produce long stems. And the broadcast system is better calculated to cause the plant to rise with a straight stem than the system of rows, which affords it space to branch out; for it is to be observed, that it is not desirable that the plant should branch; because, when there is a branch, the continuity of the fibre is interrupted, and more refuse is produced. When we are desirous to obtain fine fibre, we must sow thick. When we look for quantity, both of fibre and seeds, we must sow more thin. In the former case, three bushels to the acre may be sown; in the latter, two will be sufficient.

The seeds are sown by the hand in the same manner as corn. Were the flax cultivated in quantity, the broadcast sowing-machine might be substituted. Previous to sowing, the land should, in all cases, be well harrowed and rendered fine, and any stones that may have come to the surface removed. After the seeds are sown, they are to be covered by a double turn of light harrows; and the land is then to be rolled and carefully water-furrowed.

In the culture of flax the changing of the seeds is considered to be beneficial and even necessary, the plant being found to degenerate when produced from seeds frequently sown on the same ground. The principal reason of this appears to be, that the plant is rarely suffered fully to mature its seeds, and its natural habits are counteracted by the closeness with which it is sown. It is from the countries therefore, in which attention is directed to the proper ripening and preparing of the seeds, that we are indebted for our supplies. The best seeds used in this country are supposed to be derived from Holland; but the Dutch themselves obtain their supplies from Livonia, Courland, and other parts of the north of Europe, where due attention is paid to the ripening of the seeds.

When the plants of flax are about four inches high, they are to be carefully weeded by the hand. This is generally done by persons in a sitting or kneeling posture. They advance gradually along the ridges, picking up by the hand every weed that can be observed. The young plants that have been pressed down by the weeders in this operation soon regain their upright position; but yet it is well that the weeding process be not too long delayed, lest the stems of the young plants be broken and injured.

The land, if it has been prepared in a proper manner, will not require more than one thorough weeding of this kind. After weeding, the plants will grow with vigour sufficient to overcome any common weeds that may grow amongst them.

The next process in the culture of the flax is that of reaping. This is done, not by the sickle or scythe, but by pulling the plants up by the roots.

The period of pulling the plant is determined by the principal object in cultivating it. When it is wished to procure fine fibre, the plant should be pulled when somewhat green. When it is wished to procure the seeds either for sowing again or for crushing for oil, the plant must remain until the seeds are ripe. This will be denoted by the hardened state of the seed-vessels, the yellow colour of the stems, and the falling off of the leaves. When flax of good quality, but not extreme fineness, is wanted, the best period of pulling is just when the plant has attained its maturity with respect to the formation, but not to the full ripening, of the seeds. When it is required for the finest fabrics of all, as for cambrics and muslins, it should be pulled when it begins to flower.

When the crop is ready, the plants are pulled up by the roots, and laid in handfuls, alternately crossing each other, and left upon the ground for a few days to wither. They are then freed from the capsules or seed-vessels, and made into small sheaves, which are conveniently tied by a few stems of the plants themselves, or by some rushes or straw-ropes.

The separation of the seed-vessels from the stems is performed by a process termed *ripping*.

The *ripping* machine is an implement like a comb, with iron teeth, fixed upon a plank. Through these teeth the stems are repeatedly drawn by the hand, and thus the capsules or seed-vessels are separated. The ripple is placed in the middle of a large sheet of canvass spread upon the ground. There may be two sets of teeth, fixed on one plank, so that two persons may work at the same time; and the plank may be conveniently fixed in the ground by a pin passed through it. The capsules are preserved, the seeds being either used for sowing, or bruised for oil.

The next process is to separate the fibres from the stem. The common method of doing this is by steeping the whole plant in water. By this means the softer part of the stem partially undergoes the putrefactive fermentation, while the tougher fibres of the bark are not affected. At a certain period then, as ten or twelve days, before the fibrous part of the bark has become affected, the plants are removed from the water and dried. After being dried the stems become brittle, and are easily separated by rubbing or beating from the fibrous part of the bark, which is the only part employed in the manufacture of linen. It will appear that, if the putrefactive process shall proceed too far, the fibrous as well as the more mucilaginous part of the bark may be affected. It is, therefore, a point of practice, to allow the putrefactive process to proceed just the length of affecting the softer part of the stem, without acting upon the fibrous part of the bark. And the usual

manner of performing the process of steeping is the following:

The little sheaves made up after the process of *ripping*, are carried away to a pool or tank, either containing water, or into which water may be conveyed: and in all cases the water ought to be soft.

The sheaves should be built in the pool in a nearly upright position, the heads of them being uppermost. They are then kept under water by stones or heavy substances of any kind, in such a manner as that they shall not rise to a surface. They must not, however, be compressed to the bottom, but merely so loaded as that they shall be kept below water.

The period of steeping to the proper point must be carefully watched. In warm weather eight days will sometimes suffice, in other cases ten or twelve. After the six or seventh day, the state of the flax must be observed from time to time. It is safer to steep it too short a period than ever so little too long. In the first case, merely a little more time is required in the future processes; in the second the strength and texture of the fibres may be injured.

When the flax is found to be sufficiently steeped, it is to be taken from the pool sheaf by sheaf, and laid in heaps near the watering place until the water has drained off. It is then to be carried away to a dry and airy grass plot. Here the sheaves are opened out, and spread thinly and evenly in rows upon the ground, the spreaders working backwards, and causing the but-ends of one row just to touch the tops of the next, so that the whole plot of ground shall be covered with a thin coating of flax.

In this state the flax is allowed to lie for a time, determined by the state of the weather, generally ten or twelve days, and sometimes more.

During the further process of rotting, or *dec-retting* as it is termed, the dissolution of the soft part of the stem is still further promoted, and the whole becomes hard. When it has lain for a sufficient time, which is known by its being brittle when rubbed, and when it is at the time sufficiently dry, it is bound up again into sheaves, but larger than those made before the watering process. It is allowed to remain these sheaves a little time to dry, after which it is led home.

The leading home of the flax terminates the preparation, in so far as the mere grower is concerned. The remaining parts of the operation are properly the province of the manufacturer. But sometimes the manufacture proceeds on the farm itself to the extent of partially separating the fibrous part.

The first process in this case is breaking the stems which is usually done by an instrument called a *break*. This machine consists of three triangular planks, fixed together at both ends. Two triangular planks are fixed to another frame. The two frames are fixed together at one end by a hinge, and work the one into the other.

The upper moveable frame being lifted up, handfuls of flax held in one hand are placed upon the lower frame, while with the other hand the upper frame is made to work upon the flax by repeated strokes. In this manner the flax is bruised, and put into a state to have the ligneous refuse separated from the fibrous part by beating or scutching.

Scutching may be performed either by machinery or by manual labour. When performed by manual labour, handfuls of the flax being suspended by one hand over a plank, are beat by a flat piece of wood held in the other hand. By repeated strokes, the woody refuse of the stem is separated from the fibrous part of the bark. But the operation of scutching is now very generally performed by machinery, the raw material, after being bruised by the break, being sent to the lint-mill for that purpose.

To complete the process, and to get the fibres sorted into lengths, so as to be fitted for spinning, the lint goes to a class of persons whose province it is to give it this final preparation. These are termed hecklers. The heckler operates by means of a set of numerous teeth, placed vertically upon a board. The flax is pulled repeatedly by the hand through these teeth. In this way, and by using heckles of different sets of teeth, the workman sorts the lint into lengths. The refuse after this operation is tow.

The produce of flax varies greatly with the seasons, soil, and management. It may be said to be from thirty to sixty stones per acre, that is after being scutched, and before being combed or heckled.

Besides the produce of the plant in lint, that of its seeds is of considerable importance. The quantity of seeds produced on the acre varies as greatly as that of the produce of the stem. It may be said to be from six to ten or twelve bushels to the acre.

The seed is frequently divided into three sorts; the first sort is reserved for seed, the second for bruising for oil, and the third or refuse is employed at once for the feeding of cattle.

The capsules containing the seeds, we have seen, are separated by the ripple. The ripple is carried to the field, and the operation takes place before the handfuls of the flax are bound into sheaves to be carried to the watering pool.

The capsules are then dried in the sun, during which a number of them will open, and allow the seeds to escape. These are the best and ripest, and may be reserved, if so wished, for sowing.

The remaining seeds are separated from the capsules by a slight heating. The seeds are then carefully sifted and winnowed, and laid in some properly ventilated place, care being taken to turn them from time to time.

The expression of the oil by bruising is a sufficiently simple process, and is done by machines more or less perfect.

The refuse of the seeds may be given to live-stock. They are highly nutritive in every form. They are frequently given boiled to young animals, as calves, and to sick horses and cows. By the process of boiling, a jelly is formed, which all herbivorous animals will eat. It is for this purpose that the refuse of the seeds of the flax, which are not sufficiently good for crushing, is often reserved.

The culture of the flax does not extend in this country, and has generally decreased as improvements in agriculture have advanced. This arises in part from the nature of the plant, the minute care necessary in its culture, and the large supply of extraneous manures which it requires. It arises, however, also in a great degree from the extended commercial relations of England, which enable her to obtain the quantity of the raw material required from countries better fitted to produce it, or where the comparative expense of labour is less. Flax, it has been said, requires a large proportion of vegetable matter in the soil. Sometimes, for this reason, peaty soils will produce it in great abundance; but the best flax-soils are those rich vegetable grounds which exist in new countries, as over all the temperate parts of America, and even in the north of Europe, and chiefly upon the flat margins of rivers enriched by deposits of mud. These are the great flax-soils of the world, and may supply this country with the material, for the uses of the arts, in any quantity that may be required. The best cultivators of flax in Europe are the Flemings, amongst whom the linen manufacture took early root, and who have ever since pursued the culture of flax with diligence and success.—*Low's Agriculture.*

## IMPORTANT TO LABOURERS.

The following is a copy of a letter, just received by J. Compton, Esq., of Urcelfont, near Devizes, from Isaac Romain, late a pauper on Urcelfont parish, who left that village a few weeks ago:—

Bradford, Yorkshire, June 9, 1836.

SIR,—I have taken the liberty to write these few lines to you, hoping to find you well, as it leaves us at present, thank God for it.—Sir, I can tell you with pleasure we are comfortable and doing well at present. As I promised to tell you the truth, I will do it. Sir, I can tell you with pleasure, that we have a good master, and he is taking care of us, and being strangers in the town, he has lent us money to buy us goods with. We are very comfortable up stairs and down; master has put us in a new house of his own, which has two grates with oven and boiler; and the rent of our house is two shillings and sixpence a week: we pay one shilling a week for our goods, which we find no miss of. Sir I will now give you account of myself and children. I am working in the warehouse, I have twelve shillings week now, but I shall soon have fifteen. My eldest daughter is a rover in the mill, she is earning six shillings per week, and she will soon be earning eight and sixpence per week. Jane the next daughter, is a weaver in the mill, she is earning nine and sixpence, and she will soon be earning fifteen shillings per week. My eldest son is a black-waste sorter, at which he is earning four and sixpence a week. The next son is a worsted spinner, he is earning four and sixpence a week. William, my next is a piercer in the mill, he is earning two shillings and sixpence a week. The next two go to school, for which we have twopence a week to pay. We have a night-school for them that go to work, to write and sum, for twopence each a week. We have a Sunday school for them to go to all day, to which master do attend himself. Trade is very brisk in Bradford, and has been for some time, and we hope it will be for years to come. Provision is dear at present, but we thank God we can get plenty. After we left Robert Hale we had upwards of 300 miles to go. We came through locks out of number, and one tunnel two miles long, and one three miles and a quarter: It was six miles over the top, and we were three miles under the hill, and every one was full of fear, but we had a kind Captain who behaved well to us.

Give my best respects to all the gentlemen, and tell them we thank them for proposing so good a matter for me and my family. I do hope that I shall be able by the blessing of God, to bring them up by their own labour. Sir, give my kind respects to Mr. Llewellyn, and receive the same yourself.

I wish Douse's family and Hale's were doing as well as us.

No more at present from your obedient servant,

ISAAC ROMAIN.

N B. The original letter may be seen at the Board-room, at the Work-house, Devizes.

XULOPYROGRAPHIC EXHIBITION.—On Friday, 11th June, a private view of this exhibition took place in Regent-street. About fifteen handsomely-framed engravings on burnt wood were displayed, which, on first looking at them, have all the appearance of highly-finished Sepia drawings. The subjects are taken from well-known pictures, and are executed with great taste, skill, and ingenuity. We were more particularly struck with *Paul Preaching at Athens*, *David and Uriah*, and *La Toilette*, the effect in all of which is quite remarkable. The process by which the very ingenious artist appears to have produced these results seems to be slightly charring some wood of a fine texture and light colour, and then scraping it until the various lights and shades required by the picture are obtained. His labours are highly creditable, and will well repay the trouble of a visit.

The following communication was intended to be read at the last meeting of the Bristol Agricultural Society, but for want of time could not be accomplished:—

### TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—I beg to transmit, for your notice, a few observations upon a subject which I think will be of interest, and to which I have been directed by a statement in a Guernsey newspaper. The article has a direct reference to English agriculturists, and, indeed, may serve to give to many of them a profitable hint, although I do not coincide with the author. The subjoined extract with reference to Guernsey, contains sufficient information for our present purpose:—

“The surface of Guernsey may be stated at fifty-four square miles, or, reckoning 640 acres to the square mile, at 15,366 English acres. Deducting one third for rocks, cliffs, and places not susceptible of culture—and for houses, buildings of all sorts, streets, and roads, say, 5,120, there remains, fit for cultivation, 10,240 English acres.

“An island whose surface thus consists of little more than 10,000 acres of orchard, garden, arable and pasture land, cannot be expected to afford a great variety, or any very enlarged system of agriculture. There are, however, circumstances connected with the tenure of property, its extreme sub-division and productiveness, and with the numbers and comforts of the inhabitants, which may suggest useful reflections to the farmer, the political economist, and the statesmen of large countries. The tenure of property partakes of the double nature of land held as a farm, subject to the payment of annual rents, and as land held as freehold in perpetuity. A purchase may be made by the immediate payment of the price agreed upon, or by the payment of a part only, and converting the remainder into corn-rents to be annually paid; or finally, by converting the whole of the price into such rents. In the two last cases, where a part or the whole of the price is stipulated for in annual rents, the purchaser is, to all intents and purposes, as much the proprietor as in the first case, where the whole price is paid down in cash, and so long as the stipulated rents are paid, he and his heirs can never be disturbed, but hold the land as freehold for ever.

“An idea of the sub-division of property may be formed by a reference to the last population returns of 1831, by which there were 1,748 inhabited houses in the nine country parishes and 1,728 in the town parish. As the latter extends in the country a mile south, a mile west, and a mile north, there are more than 250 houses of the town parish that must be set down as belonging to the country, and added to the 1,748 houses of the nine country parishes. Reckoning, therefore, 2,000 houses in the country, and dividing between them the 10,000 acres fit for cultivation, the portion is five English acres, or 12½ Guernsey vergées to each house. This portion is not, of course, equally distributed; instead of five, many houses have only two or three acres attached to them, while some have from twenty to thirty. An English agriculturist will smile at the calling of the latter considerable estates, and on hearing that the exceptions where estates exceed thirty acres are extremely rare. If, indeed, a few do contain fifty to sixty, none beyond can be found. This will not appear surprising if we consider the small extent of the island, and its law of succession. Land cannot, by law, be divided by will. The eldest son takes as his eldership the house, and from sixteen to twenty perches of land adjoining on the paternal or maternal estate, if there be both: he is also at liberty to retain the land in the ring fence; that is, to keep possession of all lands to which he may have access without crossing the public road, but for such parts of lands as exceed his own share, he must pay to his co-heirs the price put upon it by the con-

stable and douzainers of the parish in which the land is situated. With the exception of one part of the land, which is reserved for the sons, and out of which is taken the eldership, the real property is divided, two-thirds among the sons, and one-third among the daughters; but should their relative numbers give an advantage to the daughters if a third were allotted to them, they would be bound to forego that advantage, and to share equally with the brothers.

“The subdivision of the land, and the tenure by which a permanent interest in its cultivation is secured to the occupier, are sufficient to account for its great production. Natural causes come also to its aid, arising from fertility of soil, mildness of climate, and the excellent manure which the sand and sea weed afford; to these natural causes may be added, the excellent roads which, of late years, give so much facility to the procuring of that manure, and the easy access not only to the coast, but to and from every part of the island; and again, the labour and attention rendered necessary by the small quantity of land in each farm, and bestowed on every part of it, contribute largely to an increased production. Thus the tethering of all cattle, the use of the spade, and the general culture of clover, lucern, parsnips, turnips, and mangel wurzel, add wonderfully to the means of sustenance for all animals. In small farms alone, and among the wives and daughters of the occupiers, are to be found the superior care and economy requisite for the successful rearing and feeding of calves, pigs, and poultry, and for the general management of the dairy. The rotation of crops generally observed, gives two crops of wheat in five years; the usual course is parsnips, wheat, barley, clover, and wheat, the greater produce of wheat being after parsnips.

“If we compare the produce of wheat with that of England, we shall find that the average produce of England is stated by Arthur Young, Tull, Cobbett, and the late resolution of several agricultural meetings, at twenty-three or twenty-four Winchester bushels per acre. Mr. Jacob, in his evidence before the House of Commons, reckons it at only twenty-one bushels. In Guernsey the average produce may be reckoned at thirty-three bushels. Mr. Cobbett, in his preface to Tull, says, that on a trial in Hampshire between the broad cast and the drill husbandry the produce was the same both ways, and did not exceed thirty-seven Winchester bushels of wheat per acre, and this was in the best land, in a very favourable year, and with the most careful culture. In Guernsey, Mr. Brock asserts that his neighbour grew in 1832, in a field of exactly two-and-a-half English acres, one hundred and thirty-four and-a-half Winchester bushels, or fifty-four per acre. It is well ascertained, that other farmers, both in Guernsey and Serk, have occasionally grown fifty-five bushels, and one respectable farmer declares that he once grew sixty Winchester bushels per acre.

“Upon the whole, the fertility of the soil and the weight of the crops is undisputed: the superior quality of the cows, the excellence of the meat, milk, butter, and vegetables, is equally so. Let the production of the island be compared to that of any 10,000 acres kept in two or three hands in Great Britain; and the advantage of small farms will be obvious. Compare the surplus produce sent to market with the surplus produce of any 10,000 acres in one, two, or three hands elsewhere, and see on which side the balance will be found. In Guernsey 10,000 acres keep 2,500 milch cows, which produce, one with the other, each five pounds of butter per week; this, at one shilling per pound, or its value in milk, amounts to 32,500*l.*; three quarters of which are sold in town: 550 cows are exported, and about that number of fat cows or oxen slaughtered; and about 500 porkers are either exported or sold to the town. The quantity of vegetables, fruit, poultry, and eggs brought to market is prodigious, and 100,000 bushels of potatoes may be reckoned to be exported or distilled annually. The cider of the island is of the best quality, and from 500 to 1,000 hogsheds are exported in a year.”

“In England we break up the small farms, depopulate the country, and cry up the surplus produce, as if that produce consumed by a vigorous happy race of

yeomen, did not tend to the welfare of the kingdom as much as when carried to large towns to feed a miserable population, living by the precarious returns of manufactures instead of the certain rewards of agriculture. Besides, the main fact upon which the sticklers for large farms rest their argument is absolutely disputed; surplus produce from large farms is not greater than it would be from moderately sized farms. There are larger estates in England than the whole of this island; but where will one be found that produces the same quantity of provisions as is sent by the small farmers of this island to market?"

I must say I do not perceive the propriety of recommending the Guernsey tenure to the English agriculturist, nor that he should mutilate his property by so many subdivisions. It appears to me that by so doing he would erect a barrier to improvement. I am disposed to believe that in 10,000 acres in England, made up of 20 farms of 500 acres each, it will not be found that there is as much capital employed and as much sterling value produced as is equal to the Guernsey 10,000 acres; and I have no doubt you will agree with me in saying, that farms may be found that are capable of it. As to the same number of families being employed, I do not say that 1154 would be required, that are reported to be employed in agriculture in that island; consequently the large farmer appears to have the decided advantage. He could adopt a system which would not only facilitate his progress far beyond the capability of the small farmer, but would also enable him to have the greatest possible produce at the least expense. Would you not say that such a man is the best farmer, and most likely to give employment to the greatest number of labourers, especially if by the aid of machinery he could diminish a few, as he could then afford to employ them in another way more profitably. The advocates for small farms say it is a matter of opinion, now surely, plain matters of fact will go beyond that; nevertheless, it might be a consideration, if it were recommended exclusively, instead of a general principle. I am ready to confess, there is no duty more incumbent on the Government of a country, or from which more advantage might be derived, than that of ascertaining those obstacles to improvement, which are occasioned by the defectiveness of the laws. In England, property held in common cannot be divided, without the unanimous consent of those having an interest in it; and even the Crown, corporate bodies, and the guardians of minors, cannot consent, unless authorized by a special act of the Legislature. Nothing could be more impolitic, or absurd, than retaining such impediments to improvement. Such legal disabilities, to prevent private individuals from consenting to an inclosure, ought to be removed by a general law, and authority given to effect a division, by appointing commissioners for that purpose if approved by a majority in value of the parties interested, and so far we may borrow a hint from our Guernsey friends.

In reference to the subject of farming, there can be no doubt as to a long existing evil on the part of the English farmers, in taking farms too large for their capital, so that, incapable of cultivating it in the most profitable manner, the land or the landlord, or both, are unjustly condemned. I think it, therefore, in the highest degree important that landed proprietors, destitute of ability and inclination to undertake the task for themselves, should employ competent persons to superintend their estates, and see that they are properly farmed. What gives one man any real superiority over another, but the greater knowledge he possesses? What enables some individuals to produce abundant crops, to carry on a prosperous commerce, or any other useful art, but

the acquisition and judicious application of that knowledge in which others are deficient? Let me not, however, be misunderstood, I am far from speaking in terms of disrespect of the English farmer, but merely recommend that which would ultimately be for the mutual advantage of landlord and tenant.

The extent of information in agriculture necessary to bring it to anything like perfection, is far greater than is generally supposed. To preserve the fertility of the soil, to free it from superfluous moisture, to cultivate it to the greatest advantage, to raise its production at the least expense, to procure the best instruments of husbandry, to select the stock likely to be the most profitable, to feed them in the most judicious manner, and to send them to the most advantageous market, to choose the plants best adapted for the soil and climate, and the most likely to become profitable, to secure the harvest even in the most unpropitious seasons, and to perform all the other operations of agriculture in a judicious manner, require an extent and variety of knowledge greater than is usually judged requisite. It is by no means an unfrequent thing to hear the landed proprietors exclaiming against the badness of the times, because his tenant, suffering from the same cause, cannot pay his rent with punctuality, but, in his turn, complains of the scanty produce of his land, which is perhaps, only one-half of what it would be if skilfully managed. Why are there so many poor on the parishes? Whence do all the complaints of agricultural distress arise? Doubtless, there are many reasons. But it is not my purpose to trouble you, sir, beyond a few of the most recent helping causes, as there are committees formed to make the proper enquiry, and if it be possible to discover the true source. I leave this part of the subject in their hands, hoping they will give it that full investigation which may prevent them in any instance mistaking the cause for the effect.

Previous to the report of the Committee on Agricultural Distress coming before the public, there are some letters on the subject, which may in the interim be perused with interest, in "the Farmer's Magazine" for December, 1835, by Chas. Poppy and others. It also contains other interesting matter. It is a magazine which should be seen upon every agricultural board in England, if not in the possession of every farmer, as it is got up with great care, accuracy, and talent.

To return to the subject, if we only take the retrospect of a few years, it is surprising to find the great number of agricultural labourers who, for want of employ, have been thrown upon the parish. This has proceeded from one of two causes, either from the farmer not finding his profit adequate to his expenses, or, his capital being too small to command the requisite labour. If it be the former, and the farmer were disposed to be content with a fair profit, his farm could not have answered his purpose; if the latter, the blame attaches to the farmer, and not to the land; in either case, if a remedy be not applied the consequence must be serious, something like snatching the last resource from the grasp of the drowning man, only, in the present instance, the evil applies not to one, but to a multitude of men.

With this view of the subject, let us suppose that one-half of the cultivated land in England be properly managed; which I think, is as much as can be said; and the other half only producing one moiety of which it is capable, for the want of proper labour being judiciously bestowed upon it; if then the culture of the latter were equal to the former, would there not be nearly as many more agricultural labourers employed? and would



not the produce be considerably greater? And probably, there would be little reason for crying out against a superfluous population at any time. Does not this lead us to the consideration, that we may possibly, after all, produce sufficient corn for our own population; thereby having sufficient resources, of our own, to render Great Britain an independent Kingdom. Besides, no country that has sufficient extent of surface, and can by any exertion produce food for itself, would act wisely, to allow itself to be dependent on others for subsistence. Indeed, as Malthus most justly observes, "Without abundance of agricultural productions, no flourishing towns, no military or naval force, none of the superior arts, none of the finer manufactures, no learning, nor any of those other great improvements of which human society is susceptible, could exist. What exertions then ought not to be made first to obtain, and then to improve a resource, which is not only the surest, and best foundation of national prosperity, but essential to its existence." Our great object, therefore, ought to be, to discover the best mode of increasing the supply at home by means of domestic industry, and not, to depend on the wind and the waves, or the good will of other nations for the means of our subsistence.

It is very important that we should convince our tenantry of the impropriety of grasping at more land than they have capital to compass. Indeed it would be well if some plan of discrimination for them could be devised, as they have not, generally speaking, exercised much for themselves, although there be some creditable exceptions.\* Also it would be of importance, I think, if some public encouragement in agriculture were offered; this subject is rarely sufficiently attended to by statesmen, or by those authors who are distinguished for their ability in writing on political subjects. Reasoning solely from the abuses to which the system of encouragement is liable, they have thence been induced to condemn that policy, and to recommend the plan, of giving to individuals the entire freedom of exercising their industry in their respective pursuits, without any legislative interference whatever. As an eminent agriculturist observes, "It is certainly better to let agriculture alone, than to establish injudicious regulations respecting it. But if a Government will make such inquiries, as may enable it to judge of what can be done with safety and advantage,

and will promote agricultural industry, not only by moving every obstacle to improvement, but by granting positive encouragement, agriculture will advance with rapidity, and will be carried on to an extent which is hardly to be credited, and in a much superior degree than by the "let-alone system," under the torpor of which ages might pass away without accomplishing what might be effected in the course of a few years under a judicious system of encouraging regulations.

If the plans which were in contemplation were successful, that is, if the protection given to agriculture by the corn laws, however imperfect, were abolished, or even materially altered, and if, as would necessarily follow, the farming interest were undone, and "the landed interest actually extinguished," what would become of the manufacturing and commercial classes when their best customers were thus reduced to poverty and ruin? It cannot be doubted that the repeal of the corn laws would eventually prove as ruinous to the trade and manufactures as to the agriculture of the country.

Our markets at present are said to be supplied by five hundred thousand farmers, who are compelled, for the payment of their rents and taxes, to bring their produce to market, and to sell it for a fair profit; but if the good of many millions of people depended in a great measure on a few capitalists, who kept their stores in other countries, inaccessible to our laws, it would be impossible by any means to resist their machinations, to raise the prices to an exorbitant height, and we should be completely in their power.

It was justly remarked by a British Minister (Lord Liverpool) that a nation of ten, fifteen, or twenty millions of people could not depend on foreign countries for the necessaries of life, without the most palpable impolicy and the greatest danger. Another statesman, who was not distinguished for attachment to the agricultural interest (Mr. Huskisson), expressed his apprehension of the hazard of such a dependence in the following emphatic terms:—"If foreigners withheld their corn from us it might only affect their revenue; but the want of corn might inflict on the country the mischiefs of revolution, and might occasion the subversion of the state."

I conceive that the exportation and importation of grain and other agricultural productions, either duty free, or at low rates, in justice and equity, can only take place between nations where the value of money is the same, where they are subject to the same weight of taxation, and are similarly situated in regard to soil and climate, where they live in amity with each other, and are not likely to quarrel.

As to the doctrine that nothing contributes so much to the prosperity and happiness of a country, as "high profits," why should agriculture be an exception to this general rule? When the profits of agriculture were high, as was the case during the last war, the country never was in so prosperous a state, and does it not prove, that successful agriculture is the true basis of national prosperity. Let that doctrine be now acted upon by the legislature, and we shall again become a happy and a prosperous nation.

I am disposed to think that the home market is the most favourable for the sale of manufactured goods; because, when agricultural produce was at a fair and adequate price, the home trade of the country did consequently flourish. Alderman Rothwell well observed in his evidence before the Agricultural Committee, Report, p. 87, "That agriculture ought to be considered the very staple of the country, and

\* A circumstance occurred in connection with a landed proprietor residing in a midland county. He told me himself, that one of his tenants who was a good farmer, but for the want of capital could not manage his farm properly, was consequently always complaining, and behind at rent day. His steward pointed out the necessity of giving him notice to quit, the gentleman felt reluctant to do so at first, but observing that it must ultimately be the case, and at a greater sacrifice to both parties, since the farm would certainly be depreciating in value every year, he was at length induced to give him notice, and told him the reason. The tenant then begged he might have the favour of a good word to his future landlord—yes, was the reply, and not only so, but should a farm become vacant in time, that would come within his calibre, he should have it. The gentleman is a General officer, therefore I think the term calibre a very scientific and comprehensive one. In a little time, a farm half the size was offered him, on which he entered, and is now going on farming it well, and finds it answer his purpose so completely, that he is quite contented.

that protecting duties in favour of agriculture, were for the benefit of trade."

Let the basis of our political system be, "The protection of Agriculture," and every other branch of industry will flourish with it.

I am, Sir, your most obedient servant,  
C. S.

## HORSEMANSHIP.

### RACE RIDING.

The *Stirrup* again:—Who ever saw a jockey ride in long stirrups! There is no such thing in the racing system; for the following reason: because these men are well convinced that short stirrups (I mean compared to the military or the manège stirrup) gives them a firmer seat, more strength, and much greater power to support and assist the horse. A jockey could neither take a proper pull at his horse, lift him, nor set to, with long stirrups.

Those who ride races are persons who are brought up to it from the earliest period of their lives; and it must be admitted that in this kingdom, race riding has attained an extraordinary degree of perfection. The racing position, it is well known, is to stand in the stirrups, the body inclined forward, the hands low; while, in the management of the horse during the race, the rider is guided by the animal's temper, mode of going, and a variety of other circumstances; and the most difficult part of the art of race-riding is, to bring what, in the language of the turf, may be called a *beaten horse home*; that is, to win the race, in the run in, against a superior horse, your own perhaps very much distressed at the moment of the struggle, which of course must be accomplished by superior skill and management; and this is not a very unfrequent occurrence.

The operation of the hands in race riding must be judiciously and skilfully performed. If you yield your hand too much, you abandon your horse; and in pulling him together, if it be overdone, you check and impede him. A steady support must be given, neither more nor less than the horse requires. The horse and the rider depend on each other; the rider's strength should hold out and be equal to with that of the horse.

If the horse goes coolly and steadily, the support from the rider must correspond; but if he be eager and hot, he must be restrained, and the hand must prevent him from exhausting his strength improperly. At the run in the most desperate exertions are called into action; the horse is suffered to extend himself to the utmost, and is assisted by the rider with the pull, the hustle, the whip, the spur, &c. according to the temper of the horse, his mode of going, &c. In regard to the use of the whip and spur, it may be justly observed, that when a horse is at the extent of his speed, the application of either of these must rather retard him than otherwise, since a horse, thus extended, if struck or spurred, will raise his fore feet higher, which must retard his progressive motion. Yet it must be admitted, that the English jockeys, in general, seem to understand very well the precise time to apply these powerful aids; and how often

have I seen two horses, running neck and neck, in all appearance a dead heat, when one single nicely timed stroke of the whip, has caused one of them to extend himself, and his very last stride has given him the race by half a head!

A horse will continue to pull as long as he can; and when he is no longer able to pull, it is manifest that he is completely exhausted.

Those who are anxious to obtain a superior knowledge of race-riding, cannot do better than (after having acquired the art of horsemanship in a general sense) observe the motions and methods of our jockeys. In the first place, they will find them a race of beings diminutive in size, ignorant, as far as relates to intellectual acquirement, but nevertheless, admirably adapted by nature for the profession, and deeply skilled in all its manœuvres and trickeries. Though, generally speaking, they present a great similarity on horseback, yet, on close observation, it will be found, that many of them have peculiarities which sufficiently distinguish them from the rest of their fraternity.

Racing jockeys have a very clean, neat appearance when mounted, particularly those of the South; at Epsom Spring meeting this is strikingly exemplified. It is unfortunate where a jockey happens to be tall, as in the case of Whitehouse, who is five feet seven inches high, and who is compelled to reduce himself so much, in order to come to the required weight, that his strength suffers very materially; and the consequence is, that he frequently becomes exhausted before his horse. Nicholson presents a striking contrast; he is very short in stature, but very compact, presenting a somewhat similar figure to Peirse in his younger days; but he has neither the steadiness of position nor the judgment which distinguished the riding of Peirse. Nicholson is a bold rider, and seldom fails to get a good start. Nelson, the King's jock, is a good fair rider, but cannot lay claim to superiority, nor can he be compared with such men as Robinson, J. Day, H. Edwards, Chifney, Conolly, Pavis, Darling, &c. He is equal (though in a different style) to Johnson, the successful rider of Dr. Syntax; and a shade superior to Arthur, Templeman, and a long list of those who may be placed in the middling class; men who, if they happen to be put on the best horse, may manage to win.

I noticed two or three times, during the year 1831, the riding of a man, named Jacques, who, though but little known as a jock, appeared to me to ride remarkably well.

No person can become a regular public jockey, who does not commence the business very early in life. He must not be allowed to attain the ordinary bulk of human nature, or his weight forms an insuperable bar to his riding on the course; he must, by sweating and physic, keep himself within a certain weight—he must oppose the progress of nature, and thus qualify himself for the profession.

There is another class of riders who appear on the race course in what are called Cock-tail stakes, Welter stakes, &c. There are but few gentlemen who exhibit in this way, that appear to advantage; their performances prove, that a man to excel as a rider on the race course, must make the subject the

business of his life. The action of race horses is smooth and pleasant; but if a man, a fair rider on the road, mount a racer on the course, and put him to a good rate, he would most likely become unable to see, turn giddy, and would fall.

In the foremost rank or what may be called *Gentlemen Jockeys* may be placed Mr. Kent and Mr. White; but these gentlemen, particularly the former, have devoted much more than ordinary attention to it: indeed, it may be justly remarked that Mr. Kent has made it a sort of regular profession. I think him the best gentleman jockey that I have seen. Mr. Kent is a finished rider; and the same observation will apply, in a great degree, to Mr. White. Lord Wilton rides well; and the same may be said of a few others; yet the generality of gentlemen jockeys make but an indifferent figure on the race course.

#### RIDING A TROTTING RACE.

The general method of riding a trotting race is to sit down as close to the saddle as possible, pressing your thighs and knees to the horse, your body inclined a little backward, your legs forward, your position as still as possible. The stirrup the usual length, the foot either home in it or the ball of the foot pressing upon it—I prefer the foot home in all riding. By thus placing yourself on the back of a trotter, it is supposed that you are better enabled to bring out his best speed, than if you rose in the stirrups; of which, however, I am doubtful; and in fact, the position just described has arisen from the motion of extraordinary fast trotting horses. The best pace of a fast trotter is a sort of run, and the action which thence results is better met by the close firm seat than by rising in the stirrups; or, in other words, the close seat will be found to correspond much better with the action, and is consequently easier for both horse and rider, than when the system of rising in the stirrup is adopted. But if the horse trot boldly out, I am decidedly of opinion, that to rise, inasmuch as it corresponds exactly with the action of the horse, is therefore calculated to produce his best pace in trotting. Hence it results that the close seat is the best calculated for runners; to the bold fair trotter it is not applicable; and as the runners are generally employed in trotting races and matches, I think we may easily perceive whence arose the notion expressed at the commencement of this article.

The celebrated American trotters, whose appearance in this country must be fresh in the recollection of every person, astonished all those who were fond of or paid attention to trotters; I confess when I first saw one of them (*Rattler*) go, I was immediately convinced that I had never witnessed anything like it. I was abundantly satisfied no horse in this country could go with him. Nor, if we consider the subject, was such a circumstance likely:—these American trotters had been trained to trotting from the moment they were first handled; they were constantly used to it, and never allowed to gallop; in consequence they had no idea of galloping; and however they might be aided, animated and pressed forward, they could not be induced to break. The horses of these kingdoms, being accustomed to various paces, are no sooner pressed in the trot beyond a certain

point, than they strike into the gallop. And after all, these American horses rather ran than trotted; and this indeed must be the case with all horses whose speed in trotting is increased much beyond the ordinary degree; which is clearly proved by its requiring a very different correspondence in the rider.

In riding a trotting race or match, the temper, trim, and habits of the horse ought to be previously known to the rider, and he should act accordingly; a man will ride a trotter to more advantage after he has been a little used to him. The hands should be held low, the horse encouraged to extend himself to the utmost, and the judgment of the rider must be exercised so as to be aware when he is upon the point of over-rating himself, and thus cause him to gallop:—the horse should trot as fast as he possibly can, but never strike into the gallop. This requires skill. If you perceive he is on the point of galloping, increase your pull, but keep your hands down: if you raise your hands to increase your power, you will cause the horse to gallop: keep your legs steady, and do not press them to his sides. A horse is liable to gallop at times, when he is by no means at speed in the trot; when, for instance, his haunches are too much under him, and his eagerness to get on will not allow the haunches to slacken that the shoulders may take the lead. The generality of trotters, when they settle themselves, take a steady support, which must be allowed them, keeping the hands low, steady, and firm. The horse will occasionally refresh his mouth, by yielding his nose or rearing his head, and then take a support again; he should be allowed whatever is accommodating to him, so that it has no tendency to make him gallop or slacken his trot. All the operations of the hand must be low to keep the horse down.

I cannot say that I admire battering a horse's feet to pieces in a trotting match over miles of hard road. Why not let the horse perform upon turf?

The third anniversary of the Downham Division of the West Norfolk Agricultural Association was held May 21st, at the Crown Inn, Downham. Wm. Bragge Esq., of Stradsett, President. The Society's premiums were contested for by 58 candidates, 18 were labourers, whose united ages amounted to 977 years, average 54 years each; their servitude 486 years, average 27 years each; their children 161 years, average 9 years each. The first premium of 3*l* was awarded to Wm. Trundle, father of eleven children, for a servitude of 30 years upon the same farm; the second premium of 3*l* to R. Sutterby, 10 children, and 31 years servitude; the third premium of 2*l* to E. Neville, 8 children and 30 years servitude; the fourth premium of 2*l* to Breton Kettingham, 11 children and 30 years servitude. The above candidates have never received parochial relief, and have invariably paid their own rents. Seventeen team-men, whose united servitude amounted to 298 years, average 17 years; nine were shepherds, in the care of 2773 ewes, average 306 each; number of lambs 3620, 27 to the score; ewes lost 55, not one in 50. The single women averaged a servitude of seven years each. Premiums were awarded to female servants of 21 years of age, to widows, and to unmarried men servants. There was little or no contest for the cattle sweepstakes, but from the subscriptions already entered into, a large show is anticipated at the next anniversary.

## NEURALGIA OF THE FEMORO-POP- LITEAL NERVE (DISLOCATION OF THE PATELLA?) IN THE HORSE.

By M. DUBUISSON, Château Thierry.

*From the Veterinarian.*

Notwithstanding the rapid progress which veterinary medicine has lately made, it is far behind that which appertains to man. The observations which have yet been recorded respecting the diseases of our domestic animals are too few in number to enable us to state with certainty their resemblance to, or difference from, kindred affections in the human subject. This is especially true with regard to the neuroses in general, and the neuralgic in particular; a class of maladies as yet imperfectly known in human medicine, and the existence of which is problematical in the quadruped.

I am not able to throw much light on the neuralgic, which certainly rarely attack the quadruped, and never endanger his life: such a task is undoubtedly beset with difficulties, and can only be undertaken after long experience and careful observation; but I will relate two cases in which I think that I have seen it in the horse.

CASE I.—An entire draught-horse, five years old. A sudden cold succeeded to a great deal of rain. The disease appeared in both hind limbs at the same time, and was accompanied by the following symptoms:—The animal remained standing—the two fore legs were wider apart from each other than in the natural way of standing, while the hind limbs, placed far more backward than usual, could not be in the least degree moved forward. This fixedness of position did not last long. It was frequently interrupted by great agitation of the whole body, and by convulsive contractions, more or less prolonged, of the femoral muscles. One symptom was contraction of the digital portion of the leg to such a degree, that the weight was supported by the anterior portion of the fetlock. In this last position of the hind legs the hocks were stiffened, and the body was carried so far forward, that it seemed almost incredible that there should not be a luxation of the articulations: and such was the peculiar appearance of the horse, that he seemed as if he were pinned to the ground by these two hind limbs. This extraordinary position, however, was continually changing, and then he found great difficulty in regaining his natural position, and seemed to suffer extreme pain, his hind limbs being in one continual convulsive motion, and almost depriving the animal of the power of bringing them forward: indeed, at last, he could only effect this by means of the spinal and croupal muscles, which did not appear, like those of the popliteal region, to be withdrawn from the influence of the nerves of voluntary motion. In order to bring himself back to his natural position, he threw as much as possible of his weight on his fore legs, lowered his head, curved his spine, and then, by certain muscular efforts, dragged his hind legs forward. Many a time I have seen the proprietor of this horse take the hind legs, one after another, and bring them forward, surmounting with some difficulty the convulsive contraction of the muscles, and thus place the animal in his natural position. After this, the pains ceased.

In every paroxysm the greater part of these symptoms returned, and presented the same degree of intensity at the commencement as at the end of the fit. The convulsions returned whenever the horse was teased, and especially when he was forced to move his hind limbs forward. During the remission

he had all his usual gaiety, fed well, and did not appear to suffer any considerable pain:—the pulse was natural, and there was no other deviation from a state of perfect health, than the inability of bringing one of the hind limbs before the other.

All these symptoms disappeared from both legs at once, at the expiration of about forty-eight hours, and it returned sixteen days afterwards, when, as in the first instance, a cold temperature of the air followed considerable rain. This new attack did not last long.

My treatment consisted of a mash diet, the internal administration of small doses of spirit of turpentine, and of embrocations with an opiate liniment over the whole extent of the limb. I meant to have applied other means, had a third attack occurred; but a twelvemonth passed, and the horse continued well.

As to the cause of this affection I have little to say. The owner had purchased the horse only eight days before the first attack; and I cannot tell in what state he was before the sale, nor whether the causes of it dated their existence before or after this period.

The change of locality might have had some influence in the production of it; it was probably the principal cause, for all traces of disease disappeared at the end of a month. To this, perhaps, may be added the equally powerful influence of the hard work and high keep which he had experienced with his new master. As to the treatment employed, it could have very little influence in removing the complaint.

CASE II.—This also was an entire horse, twelve or fourteen years old. As in the former case, the disease was preceded by cold and wet weather: the symptoms were the same, except that they were not so violent, nor of so long duration. When he was quiet, the animal did not appear to suffer, and ate and drank well: it was only when he moved his hind limbs in the act of progression that the pains and convulsive contractions were perceived.

If, however, the neuralgia was not so intense as in the preceding subject, it lasted longer; for it was not until the tenth day that it began to disappear suddenly in one leg, and in consequence perhaps of the weather suddenly becoming warmer, or spirit of turpentine having been given internally, and the cauterizing having been applied to the coxo-femoral portion of each limb. On the following day the spasms left the other leg, and the horse returned to his work. During the whole of the attack there was not any evacuation of urine, but, as soon as the animal began to get better, it was voided in great quantities.

The cause of this last attack probably was some excessive fatigue which the horse had experienced, and the being exposed to cold when covered with sweat, and the custom of many cabriolet proprietors (and this horse belonged to one of them) to turn out their horses into the wood during night.

If I propose to designate this affection by the name of femoro-popliteal neuralgia, it is because I think that its seat is the great femoro-popliteal nerve (the great sciatic of some French anatomists, perhaps here the nervous popliteus, or internal and larger division of the sciatic nerve,) and, perhaps, also the smaller (external) popliteal. I confess, however, that I cannot base my theory on the symptoms which I have described; and I do not deny that that theory is manifestly incomplete which is not supported by facts of pathological anatomy: nevertheless, if it be evident that the muscles which undergo these unusual spasmodic contractions are those on which the

femoro-popliteal nerves are distributed, it is not illogical to account for these spasms by supposing them to indicate a morbid affection of these nerves. As to the question which of these nerves is chiefly, or, perhaps, alone affected, I should say that it is the great femoro-popliteal, which sends branches to the extensors of the hock and flexors of the foot. If the other nerve had been similarly affected, there would have been powerful contraction of the pre-tibial, and the posterior femoral muscles, and the hock would not have been so extended, nor the foot so flexed.

*Réc. de Méd. Vét., April 1836.*

[These are plainly cases of dislocation of the patella. The projection backwards of the hind leg, and the flexion of the pasterns, and the sudden disappearance of the lameness, sufficiently mark it. There can be little doubt, that if the stifle had been examined, a slight projection would have been found on the inside or out side of it, and probably on the latter. The method of reducing the dislocation is well known to every practitioner. Even a lash of the whip, although it may be a somewhat unsurgical and perhaps dangerous application, has often wrought a sudden and effectual cure. In case of relapse, a blister round the stifle will prevent a repetition of that.—Have any of our readers seen a case of veritable or probable neuralgia in the quadruped? It would be satisfactory to clear up certain points of pathology as we proceed; and we would earnestly entreat the co-operation of our brethren for this purpose.—Y.]

## EAST SUSSEX ASSOCIATION,

FOR THE IMPROVEMENT OF THE LABOURERS' CONDITION,  
AND THE ENCOURAGEMENT OF AGRICULTURE. SHEEP-SHEARING FOR PREMIUMS.

The trial of skill in sheep-shearing for premiums, given by the East Sussex Agricultural Society, took place on Friday, June 3rd., at Firle. By the kindness of Lord Gage, a picturesque spot in the Park was appropriated to the meeting. Twenty-five pens (one for each competitor) had been fixed in the green sward, enclosing an area of considerable extent, where the shearers were to perform their work. The candidates having completed their allotted task of shearing eight sheep each, the judges, Messrs. T. Edlman, Henry Rogers, and Farncombe, proceeded to inspect the work, and the company immediately afterwards repaired to the booth, and upwards of 60 persons sat down to an inviting repast.

The Earl of Chichester took the chair, and Mr. Putland officiated as vice-president. The cloth having been removed,

The CHAIRMAN said that before he proposed the usual loyal toasts, he thought it would be better to call in the competitors and distribute the prizes, as the men would then have an opportunity of drinking the King's health with the company. His lordship then explained the resolution under which the awards were to be given. It had been decided by the society that a sum should be given in premiums to the best shearers, whose work should be performed in the neatest and most workman-like manner, with the least injury to the sheep. Providing the work was well executed, the time also to be taken into consideration. And no candidate was to be admitted without a certificate of good character.

The men were then called in, and his lordship distributed the prizes as follows:—

CLASS 1.—The first premium 3*l* to Hugh Simmons, Jun., of Falmer. The 2*d*, 2*l* to Joseph Upton of South Malling. The 3*d*, 1*l* to John Oliver, of Firle.

CLASS 2.—Those under 24 years of age, who had not shorn in a company more than three years. The 1st premium of 2*l* to William Walder of Shermanbury. The 2*d* of 1*l* to R. Levett, Jun., of Berwick. And the 3*d* of 10*s* to Edward Carter, of Falmer.

A premium of 1*l* to Hugh Simmons, Senr., as the Captain of the company to which the best shearer belonged. To Richard Levett, Senr., the Captain of the second best was awarded 10*s*. And Hugh Simmons as Captain of the third best, a further premium of 10*s*.

On the recommendation of the Judges, 10*s* were presented to Gregory Gladman; and 5*s* to James Dodman, two unsuccessful candidates, who had sheared their sheep in a very workmanlike style.

His LORDSHIP then alluded to the objects of the society, and its present prospects. He said, that as President of the society he had received a communication from his Majesty, who had last year expressed the interest he took in the society, and desired to become a member, but deferred doing so until the new rules and regulations should have been made. In reply to a communication from him (Lord Chichester,) containing those rules and a copy of their report, His Majesty had, through Sir Herbert Taylor, transmitted the following letter:—

“ My dear Lord, “ Brighton, Jan. 3., 1886.

“ I have had the honour to receive and submit to the King your lordship's letter of the 26th ult. and the accompanying report and account of the proceedings of the Sussex Association, and I have received his Majesty's commands to thank you for this very satisfactory communication. His Majesty orders me to assure your lordship of his entire approbation of the report and of the proposed rules, as of his ready acquiescence in the wish of the committee to notify in their future advertisements that he has become patron of the institution.

“ His Majesty considers its purposes and provisions highly important, as being calculated to promote the agricultural interests of this county, and to encourage the adoption of a similar course in other parts of the kingdom. He deems the maintenance of those interests and the welfare and comfort of the valuable labouring class of his subjects to be essential features of the prosperity of this country, and justly the object of his Majesty's solicitude and of general attention; and he therefore rejoices in the opportunity which the Sussex Association have afforded to him of giving his countenance to their praiseworthy and useful exertions, the success of which must be an object of his Majesty's peculiar interest, from the circumstance of his residing in this county during a considerable portion of the year.

His Majesty directs me to add that he will subscribe 20*l* annually towards the objects of this institution, and that Sir Hy. Wheatley will receive instructions to pay that sum to your lordship immediately and every January.”

“ I have the honour to be,

My dear Lord, yours very sincerely,  
“ Rt. Hon., Earl of Chichester.” H. TAYLOR.”

He was quite sure that those who knew the goodness and kindness of his Majesty's heart, and the interest he took in agricultural affairs, not only because it was his duty as King of this country so to do, but also because he had for years been himself a practical agriculturist, would be anxious that men who had not the same opportunity as themselves of knowing what was going on, should be made acquainted with the anxiety which was manifested for the welfare of that class to which they belonged, and the

fact that it was in the industry, the honesty, and the morality of the more numerous classes that the prosperity of this country would alone be found; and he trusted that the expressions which they had now heard of his Majesty's intention to promote the industry, and consequently the comfort and happiness of the labouring class, would stimulate them to fresh exertions, which would tend to redeem that character which, though not in the individual instances of those he was addressing, had been, he regretted, in many cases lost. There were many among them who he knew did honour to their station, and to the happy constitution under which they lived; and he hoped that the rewards he had now distributed would incite them to future industry, and the further exercise of the skill which they had that day manifested. (*Cheers.*)

The **Healths of the King and Queen** were then drunk amidst loud applause.

The **CHAIRMAN** then informed the company of the business that had been transacted at a meeting held that morning. A rule had been decided on, that the premiums to be given to labourers for the best cultivated gardens, should be under the control of local associations; and conformably to that regulation several applications had been made to the central society, and they had agreed thereupon to award the following sums:—to Ditchling, £3; Hamsey, £3; Stanmer, Falmer, Kingstone, and Iford, £6; and Hurstperpoint, £3. The finances, he was happy to observe, were in a very flourishing state, and he only regretted that the operation of the society was not further extended. It appeared that the balance in hand was £185 9s., and with subscriptions uncollected, £188 9s.; from which, after deducting the shearing premiums 11l. 5s.; the ploughing prizes, 15l.; the branch societies, 15l.; premiums of last year (if claimed) 70l.; and incidental expenses; a surplus would be left of 70l. at least. The noble lord then alluded to the great good which appeared to have been effected by the local associations, and expressed a hope that many similar institutions would be formed in connection with the central society.

The **Healths of the Lord Lieutenant the Duke of Richmond, and Lord Egremont** were each drunk with universal applause.

**Mr. PUTLAND** proposed the health of the noble chairman, which was drunk with three times three hearty cheers.

The **CHAIRMAN** in returning thanks observed that although he was not a practical agriculturist it gave him on all occasions the greatest gratification and delight to meet those whose interest and profession were connected with agriculture, not only to co-operate in all that was likely to benefit the agricultural interest generally, but to promote also the welfare and the happiness of the labouring class—(*cheers*). He thanked them for this kind expression of their sentiments towards him, but he must say that, if there were merit in any of the plans which he might have suggested he was much indebted to the assistance of his friends in their formation, and he, indeed, trusted that the bonds of that mutual friendship might yet be drawn closer and closer together. His lordship concluded by proposing the health of Lord Gage, whose unavoidable absence he regretted. He need not appeal to every tenant present to affirm the upright and liberal character of his noble friend—on the poor he need not call to bear testimony to that kindness and humanity which belonged perhaps more to Lord Gage than to any other nobleman whom he knew.

The health of the judges was then drunk, and **Mr. Tbos. Ellman** briefly returned thanks, and proposed

the health of the Stewards, Messrs. John Ellman and Putland.

**Mr. JOHN ELLMAN** returned thanks. He remarked on the inferior style of sheep-shearing which had formerly prevailed in this county, and the gradual advancement which had taken place in the art, and expressed a hope that a spirit of emulation would be awakened and a perceptible improvement take place every year, fostered by this society—supported as it was by the Noble Chairman, whose strenuous exertions in behalf of the agricultural interest reflected credit on the country in which he lived.

The **CHAIRMAN** proposed the health of "Captain" Simmons and the successful candidates, stating that the former was one of his tenants, and a hard working industrious man: and he might here remark that it was only by encouraging industrious and moral habits in the labouring class that they could look for that relief to the agricultural interest which they in vain hoped to obtain elsewhere—(hear hear). He did not wish to indulge in any gloomy forebodings, but for his own part he did not think they were justified in hoping for any relief from legislative enactments. They were too apt to look to the legislature for relief, and to forget the moral of that ancient fable of the waggoner, who, when his wain had stuck fast in the mire, stood bawling to Jupiter for assistance when he should have put his own shoulder to the wheel. In his opinion their prosperity would be in proportion to the encouragement given to the industry of the labourer, and the advancement made in an improved system of agriculture, by promoting among other means such institutions as this. He felt pleasure in proposing the health of one who had for years in his sphere put his shoulder to the wheel most manfully.

His Lordship shortly afterwards left the chair, and the company after enjoying a convivial evening, departed highly gratified with the proceedings of the day.

**PLOUGHING BY STEAM.**—Some experiments were tried on Friday week at Red Moss, near Bolton, Lancashire, in the presence of Mr. Handley, M. P. for Lincolnshire, Mr. Chapman, M. P. for Westmeath, Mr. Smith, of Dcanston, and other gentlemen interested in agriculture, with a new and very powerful steam-plough, constructed by Mr. Heathcote, M. P. for Tiverton. About six acres of raw moss were turned up in a few hours, and turned up in the most extraordinary style, sods eighteen inches in breadth and nine inches in thickness being cut from the furrow, and completely reversed in position, the upper surface being placed exactly where the lower surface had been before. The possibility of ploughing by steam has thus been established, though, as the employment of the steam plough in preference to one drawn by horses will depend on the comparative cost of the two powers, and on that of the implements used, and as there are not at present any sufficient data for judging what the difference of the cost will be, it is not possible to say how far steam is likely to be applied to this department of agriculture. The plough of Mr. Heathcote, though a very powerful machine, appears much too complex and costly for common agricultural purposes, though we have little doubt that it might be used not only with effect, but advantage, in reclaiming large portions of moss land—such, for instance, as the bogs of Ireland. Indeed, it is the opinion of Mr. Heathcote himself, that it would not at present answer to employ it in reclaiming a smaller portion of bog than 1500 or 2000 acres, though it may probably be cheapened and simplified, so as to make it ultimately useful on a smaller scale.

**Mr. Ellman**, in his evidence before the Agricultural Committee, says the New Poor Law has been the salvation of the county of Sussex.

## AGRICULTURAL SOCIETIES No. 2.

TO THE EDITOR OF THE YORK CHRONICLE.

SIR,—The greatest impediments to agricultural improvements are;—a want of easy and rapid communication throughout the widely scattered ramifications of that body, and an apathy in the individuals composing it, to seek the information,—necessary and practical, respecting the principles of their profession. There must be some attractive nucleus to effect the former;—some gentle, well regulated, and patient inducement to the formation of habits; reading, and enquiry, as well as communicating intelligence in an eligible form, to secure the latter. The object is sure to be defeated, if we endeavour to force intelligence upon them, or give them too much of it at one time. We have heard it spoken to the disparagement of the smaller farmers, that it is owing to the large farmers that all the improvements of agriculture have taken place. This however is well known to be erroneous;—it is either noblemen, or chemists, or persons who have more means and leisure than the large farmers, who have experimented, and to whom all our improvements are owing, as Lord Somerville, Lord Western, Lord Althorpe, Sir John Sinclair, Sir H. Davy, and Dr. Lettsom. Why should the smaller farmers be unfavourable to agricultural improvements? cannot they as effectually try an acre of *chevalier* or, *annat barley*,—the *trifolium incarnatum*, or the *pou venosa*; *bone manure* or *animalized carbon*, as fifty, and do it in a much more careful and scientific manner, than the too much occupied large farmer?

The means for accomplishing the greatest advancement of practical and scientific agricultural knowledge, are by agricultural libraries;—lectures, and prize and other essays. Some landowners adopt the almost useless method of purchasing a number of agricultural periodicals, and circulate them amongst their tenantry, which are generally thrown to a side, and we hear complaints that they cannot be induced to read them. Whence arises this? They are given to them, and from the hands of persons whom they consider as ignorant of all good farming. If instead of this, a few land-owners would establish a small library;—first of periodicals, and, then of standard works, and sell the tickets at a very small sum, not more than five shillings, or two and sixpence will be better, they might be *tempted to read*, as they value most what they pay for, but will not lay out much until the desire for knowledge is excited. A few gentlemen might subscribe a sovereign each per annum, and introduce nothing but works purely agricultural, and by constant additions of works and readers, it might become generally and really valuable. I would press this most earnestly upon the attention of landowners. I next would recommend lectures,—not as a commencing, but an advanced step. I am no friend to the odious and detestable “march of intellect,” or the rabid and infidel manners so deemed by this depraved and perverted age, but I would have every man acquainted with his profession,—its principles and reasons,—be it what it may, and especially an art like this, which depends so much on our practical knowledge, and to which science may be so advantageously applied.

I would recommend the lectures to embrace the three great branches of knowledge: 1. Grazing, including rearing, breeding, and fattening, with their principles. II. Husbandry, including soils, manures, and crops, their nature and management. III. Operations; such as agricultural implements, with occasional ones on the prospects, importance, and encouragement of farming;—the effect of supply and

demand,—new principles, and general occurrences. These lectures should be delivered by persons who have some practical knowledge, and some experience, and should be delivered in villages and hamlets in the country, and not in the market towns, or on market days, when other business occupies the attention of the farmers. The same lectures might be repeated in twenty villages, and their conversations on the practical points raised might be invited, and information would be diffused, and interest excited, and the way paved to the adoption of sound scientific principles.

The third step I would propose is the publication of the experiments of practical men. On a small, but admirable scale, the Doncaster society has thus acted, and published two excellent reports; one on bone-manure, and another on mangel wurzel, and which are the most useful and practical little treatises on the subjects published. A quarterly or annual volume might be published, by most of the respectable societies, and thus interest is excited both by reader and writer. The papers of the Bath and West of England society, are of this character, and have effected much, as well as the highly useful papers of the Highland society of Scotland. In order to induce writers to exert their talents, I would recommend prizes for the best articles on certain subjects, especially the most difficult and complicated, as,—the food of plants;—the best modes of cultivating the newly introduced plants;—the best method of treatment for well known diseases incident to animals, &c. &c. The central agricultural society might effect this, in the easiest manner, and thus make itself of so useful and general a character, as to secure the attention and favour of the farmers in the country, and make it much more powerful and useful, as well as give an impetus to the advancement of agriculture.

W. E. N.

## FRENCH AGRICULTURE.

The proportion of pasture land in the canton of Calais is about 8,000 acres; the arable about 22,000 acres.

In the canton of Guines the proportion of pasture is much less, not exceeding 3,000 acres; the arable about 23,000 acres.

In the high lands, which in extent may be stated at full half the total extent of the two cantons, the land is various in point of fertility, consisting generally of reddish earth, but in many places poor and stony, improving as it recedes from the coast. It is mostly arable, with the exception of the forests. The low lands, which are more extensive in the cantons of Calais than Guines, are generally sandy or light earth; but being well watered afford good pasture, and where mixed with clay the arable is very productive.

Through the two cantons the extent of the land cultivated by the proprietors may be stated at one-half, the general size of farms being from 100 to 200 acres; but there are a few farms cultivated by proprietors of much greater extent, even as much as 1,000 acres.

The general size of the larger farms rented are from 150 to 250 acres. They are almost invariably let on lease for three, six and nine years, the tenant having the option of giving them up at the end of each of these terms on giving six months' notice; the farmer paying all taxes.

Land generally pays from 3 to 4 per cent. The average rent of the first quality of land is 45 francs,

or 1*l.* 18*s.*; of the middling quality, 30 francs, or 1*l.* 5*s.*; and of the inferior quality, 15 francs, or 12*s.* 6*d.* per acre, or mesure.

The stock fed on the pastures are oxen and cows and horses. The sheep are chiefly fed on the wastes, and on the uninclosed corn lands when there is no grain sown or corn standing on them. Every farmer who keeps sheep has the right of feeding them on all lands of this description in his commune.

So great a portion of the land being arable, all kinds of grain are cultivated; but I do not think there is any one kind cultivated in an extraordinary degree above another. Flax, clover and rape-seed are grown much more than in England. On the high grounds, where there is little or no pasture, the farmer depends on clover for winter food for his cattle. Turnips are not cultivated.

The average quantity of wheat and other grain produced on a mesure, or acre of land, is in the following proportion:—

	On the Best Land.	Middling Quality.	Inferior Land.
	Hectolitres.	Hectolitres.	Hectolitres.
Wheat .....	10 to 12	8	4
Oats .....	16 to 20	12 to 16	8
Barley .....	16 to 20	12 to 16	5 to 7
Beans .....	10 to 12	9	4

The hectolitre being 22 gallons, or 2½ bushels English Imperial measure.

The usual rotation in which grain is sown is—  
 1st year—wheat, and sometimes rape and beans.  
 2d year—rape, oats, beans, rye, peas, barley.  
 3d year—clover, flax, potatoes, &c.

The land is kept in continual crops, being seldom left fallow more than once in eight or nine years.

The rent is always paid in money.

The proprietor of the soil is not subject to any taxes, which are always paid by the tenant, the farms being let with that agreement. The proprietor would otherwise be subject to the foncière, or land-tax.

The taxes to which the farmer is subject are—

1. The foncière, or land tax.
2. The personnel et mobilière.
3. The doors and windows.
4. In the low lands there is also a rate amounting to one franc per mesure levied on the farms, for the expenses of draining the country, the repairs of canals, dykes, &c. The foncière, or land tax, is fixed in this department by dividing the land into five classes, as follows:—

The first class pays per mesure, 3 <i>l.</i> 50 <i>c.</i> 2 <i>s.</i> 11 <i>d.</i>
The second ditto, 2 <i>l.</i> 50 <i>c.</i> ..... 2 <i>s.</i> 1 <i>d.</i>
The third ditto, 2 <i>l.</i> ..... 1 <i>s.</i> 8 <i>d.</i>
The fourth ditto, 1 <i>l.</i> 50 <i>c.</i> ..... 1 <i>s.</i> 3 <i>d.</i>
The fifth ditto, 1 <i>l.</i> ..... 0 <i>s.</i> 10 <i>d.</i>

The taxes on a farm of 200 mesures, or acres of land of midland quality would therefore be—

Foncière.....	400 to 500 <i>l.</i>
Personel et mobilière...	100
Door and window tax..	20
	620 .. £25 16 <i>s.</i> 6 <i>d.</i>

In addition to this, on the low lands the farmer would have to pay the wattringue, or tax for draining, as before-mentioned, which would be 200 francs more, or, in English money, 8*l.* 6*s.* 8*d.*; but the farms on the high lands are not subject to this tax.

No taxes are levied for the support of the poor, assistance being afforded them only by voluntary

subscription, no poor laws being in existence. No rates or taxes are levied for religious purposes.

Almost all articles of consumption are subject to the duty of Octroi on entering towns. The following list will show the duties on articles, the produce of the surrounding country, on entering the town of Calais:—

Oxen, per head, 15 <i>l.</i> .....	12 <i>s.</i> 6 <i>d.</i>
Cows, heifers, bulls, do. 10 <i>l.</i> 50 <i>c.</i> .....	8 <i>s.</i> 9 <i>d.</i>
Calves, do. 3 <i>l.</i> .....	2 <i>s.</i> 6 <i>d.</i>
Sheep, goats, lambs, do. 2 <i>l.</i> .....	1 <i>s.</i> 8 <i>d.</i>
Pigs, do. 5 <i>l.</i> .....	4 <i>s.</i> 2 <i>d.</i>
Beer brewed within the circle of the Octroi, per hectolitre, 1 <i>l.</i> .....	0 <i>s.</i> 10 <i>d.</i>
Hay, clover, sainfoin and all other forage used as food for cattle, whether green or dry, per 100 bundles, the 100 bundles weighing about 1,100 <i>lbs.</i> English, 2 <i>l.</i> ....	1 <i>s.</i> 8 <i>d.</i>
Straw, do. 1 <i>l.</i> .....	0 <i>s.</i> 10 <i>d.</i>
Wood, for burning, the stère, about 36 cubic feet English, 2 <i>l.</i> .....	1 <i>s.</i> 8 <i>d.</i>
Large faggots, per 100, 2 <i>l.</i> 20 <i>c.</i> .....	1 <i>s.</i> 10 <i>d.</i>
Middling do., do. 1 <i>l.</i> 20 <i>c.</i> .....	1 <i>s.</i> 0 <i>d.</i>
Small do., do., 80 <i>c.</i> .....	0 <i>s.</i> 8 <i>d.</i>

For further information on this head, and for other articles subject to similar duties, I enclose a printed copy of the regulations and tariff of the Octroi of Calais.

The average price of butcher's meat is 11 sous, or 5½d per lb. in the country.

The average price of poultry is, according to the size and quality:—

Couple of fowls, 2 <i>l.</i> to 3½ <i>l.</i> .....	1 <i>s.</i> 8 <i>d.</i> to 2 <i>s.</i> 11 <i>d.</i>
A turkey, 2½ <i>l.</i> to 6 <i>l.</i> .....	2 <i>s.</i> 2 <i>d.</i> to 5 <i>s.</i> 0 <i>d.</i>
A goose, 3½ <i>l.</i> to 4½ <i>l.</i> .....	2 <i>s.</i> 11 <i>d.</i> to 3 <i>s.</i> 9 <i>d.</i>
Couple of ducks, 2½ <i>l.</i> to 3 <i>l.</i> .....	2 <i>s.</i> 2 <i>d.</i> to 2 <i>s.</i> 6 <i>d.</i>

The price of bread is—

The loaf of white bread, 4 <i>lb.</i> , 12 sous.....	6 <i>d.</i>
Ditto, mixed, do, 10½ sous.....	5½ <i>d.</i>
Ditto, do., do., 10 sous.....	5 <i>d.</i>
Ditto, brown bread, 5 <i>lb.</i> , 9½ sous.....	4½ <i>d.</i>

The number of hired labourers employed on the land depends much on the number of the farmer's family, also on the nature of the land, but it may be stated generally, that five or six labourers are sufficient on a farm of 200 mesures or acres of land.

A ploughman is always hired by the year, and on the larger farms three are kept. The wages of the first are from 180 francs to 200 francs, that is, from 7*l.* 10*s.* to 8*l.* 6*s.* 8*d.*; of the second, 120 francs or 5*l.*; and of the third, who is an apprentice, 75 francs or 3*l.* 2*s.* 5*d.* They are all boarded and lodged by the farmer. A thresher and other labourers earn 15 sous or 7½d per day, and their victuals. I consider 18 sous a day the maximum that a labourer can earn, taking the year through, and supposing him to be in constant work.

A shepherd has 60 francs (2*l.* 10*s.*) a year, with liberty to keep 10 sheep of his own with every hundred sheep of his master's, 250 sheep being about the average of the flocks; he has also his board and lodging and food for his dogs. If the shepherd keep no sheep of his own, he receives 300 francs (12*l.* 10*s.*) a year wages.

A female servant, hired by the year, has 75 francs (2*l.* 2*s.* 6*d.*) board and lodging. The above wages are always paid in money; it is, however, customary for the farmer to contract for the cutting of their corn, and in that case the wages are paid in kind the reapers who contract receiving seven sheaves in the hundred.

Labourers hired during harvest have 30 sous (1*s.* 3*d.*) per day, besides their victuals.



Labourers have their victuals as above stated, but are not lodged by the farmers unless hired by the year.

The general food of the agricultural labourer in this part of France consists of bread, potatoes and vegetables, and soup made of bread, vegetables, and a small portion of bacon or salt pork. On this head they are certainly not so well found as the English labourer, having very rarely, if ever, any kind of butcher's meat.

During the spring and summer the women are a good deal employed on the land, particularly in weeding the corn and flax, and planting potatoes, and in pulling the flax when gathered, which is always done by the hand. In the autumn they are employed in getting in potatoes. In these employments they can earn 10 to 12 sous (5d. or 6d.) per day. In the winter they go out to spin. A woman hired during harvest has 15 francs (12s. 6d.) a month and her victuals, if hired by the day during harvest, 15 sous (7½d.) per day, and her victuals. When they go out to spin, they have from five to seven francs a month, with board and lodging. When not hired during the summer, they go out to cut grass on the wastes or in the woods, which they collect for their cow in the winter; almost every cottager who has a family having his cow.

The number of men taken for military service varies according to the wants of the army; the general number is, for the canton of Calais, 50; and for the canton of Guines, 35 annually; making a total of 85 on a population of 38,077.

The ordinary price of a substitute for the army is from 1,000 to 1,200*l.*, that is from about 40*l.* to 50*l.*

The fuel used by the farmers in this neighbourhood is turf and wood, the former is procured from the turf marshes near Guines and Andres. The price of turf is 2½ francs per 1,000, or 2s. 2d. English. The wood is derived principally from the forest of Guines, and costs five francs, or 4s. 2d. per somme, a measure of about 18 cubic feet English.

The working dresses of the labouring population consist generally of coarse linen stuff, and costs about 24 to 30 francs (1*l.* to 1*l.* 5s.) The better clothing, worn on holidays by such as can afford it, costs from 60 to 75 francs (2*l.* 10s. to 3*l.* 2s. 6d.), and is something of the same material as that worn by the English people of the same class, though I think the English labourer is the better clothed. With respect to the comparative cost of the clothing of labourers of the two countries, I am unable to judge, having had no opportunity of making the observation in England for the last 30 years.

From 700 to 800 persons receive assistance from the "Bureau de Bienfaisance." This assistance consists in the distribution of bread, meat and clothing, and sometimes in payment of lodging, but never in money. The sick poor are visited by the physicians of the establishment, and have proper medicines delivered to them.

The revenue of the Bureau de Bienfaisance, is derived from an appropriation of 9,000 francs from the budget of the town, and 7,000 to 8,000 francs derived from voluntary contributions, collections at the houses and in the churches, and a per centage on the receipts of the theatres, balls, &c.—*Parliamentary Paper.*

SEEDS.—Further proof of the continuance of germinating power in seeds has been received, by the growth of some taken from tombs dated in the time of Marcus Aurelius, and also of Clodwig.

## ON AGRICULTURAL CHEMISTRY.

BY THOMAS SHAPTER, M.D., MEMBER OF THE DEVON AGRICULTURAL SOCIETY.

## No. I.

Agriculture may justly be termed, "The Art of making the Earth produce the largest crop of useful Vegetables at the smallest expence." and we cannot be surprised, when we think of the importance of agriculture to the human race, that a considerable degree of interest should be attached to its operations and results.

For it is evident, that as population increases, so, for its subsistence, must the earth send forth a proportionate quantity of its fruits; and a land, which in its natural condition would scarcely afford to a few scattered savages an unnutritious and scanty meal, is made by the industry of the husbandman, to give forth fruits sufficient for the maintenance and for the wants of the condensed masses of civilised man.

Although we are in a great measure ignorant of the rural economy of preceding ages, yet the fact that large masses of men inhabited small districts, is sufficient evidence that agriculture was an object of attention among them, and that its operations were practised with success. And ample proof is offered to the importance that was attached to it amongst the ancients, by the fact that they esteemed the goddess who presided over rural affairs, to be their first legislator; and to her did they offer up offerings, sacrifices, and prayers, when idolatry was a curse upon the earth.

We might lay before the reader the consecutive history of agriculture in different ages and different countries, but it tells but a sorry tale:—for, while every art and every science has been the subject of experiment and proof, a vague and fortuitous experience has alone, until very lately, tended to the success of agricultural pursuits, and to the flourishing condition of its operations.

Though Hesiod in his "works and the days," has given instructions to the cultivators of the field;—though Pliny, Cato, and Columella, the learned agriculturists of a former æra, have shown that the ancients were aware of the importance of manuring those soils which they cultivated; and though Theophrastus informs us they mingled soils together to increase their fertility;—yet not a gleam of rational science helps them in their experience.—It was so, and they were satisfied.

It has now, however, become to men's minds, too obvious that experience may be improved by the assistance of science, for them to sleep upon their ignorance, and permit its arcana to be unpenetrated; and the result to be anticipated is, that the skill, so fortuitously acquired, will be no longer of partial or local application only, as it formerly must have been.

England and France have beamed forth a meridian of great names, which have shed a new light on the objects of this, as it may be termed, branch of natural philosophy; and while some have applied to its purposes the improvements in Mechanics, others have made Chemistry subservient to the drawing from the earth its hidden resources.

There can be no doubt that the application of this science, which is the object of my present endeavour, is surrounded on every side with difficulties, for it is no easy task to trace with certainty or exactness the connexions of effects with their causes: a long time may be required to develop the result of experiments; the number of conflicting occurrences that are present, and which may intervene to throw a

shadow on what should be clear; the various and indeterminate influences of the elements; and more than all, the unsearchable processes of nature; all tend to obscure the "wherefore" of results.

Nevertheless, some hopes of certain success may be entertained; for, to the diligent inquirer, Chemistry has become a certain science, and its connection with many operations of nature, and its application to the purposes of rural economy, have been proved to the enriching and honour of this country.

We are now aware how necessary it is to those engaged in the study of the phenomena of nature, to understand intimately the elements engaged, and the affinities and relations that they exercise.

The province of the chemist is to search out these elements, and to study their affinities. And as all the laws of nature are immutable, he is enabled to infer, from previous experiment, the results that may accrue from meditated causes.

Chemistry, as we now meditate applying it, tends to a knowledge of those circumstances that influence the growth of vegetables, and to the actions of the agents that excite their functions. Unlike the animal world, the vegetable creation cannot go in search of the objects necessary to its being; but then the necessary conditions are brought by providing nature into juxta position with the fixed plant; the atmosphere and its products, the earth and its contents, yield the required sustenance; the consideration of which must obviously be the province of Agricultural Chemistry.

My present purpose, then, is to give in these essays a condensed view of chemistry, as applicable to agricultural affairs; and hope, in other parts of this journal, to shew that the application of its laws to various parts of this county, may be attended by local advantages.

The atmosphere of course will be the first object of consideration,—premisng, that vegetable matter in general can be resolved into three simple elements, which are named oxygen, hydrogen, and carbon.

It may be necessary here to say some few words in explanation of the term Elements, as used in the restricted sense of chemical nomenclature. Formerly it was thought that there were but four, and these were the earth, air, fire, and water; but the advancing state of chemical science has shown the erroneousness of these views.

Modern chemists call elements those ponderable and appreciable matters which contain but one substance, and are of an homogeneous nature, and of these about sixty have been discovered; while the innumerable affinities and combinations of these form the existences of the external world, and are, in the language of science, termed compound bodies.

One condition of these elements it is important to bear in mind, and it is, that they are indestructible; and though to the ordinary observer this may appear contrary to the experience of common observation, yet when we bear in mind that although water be dissipated by heat, yet the elements that formed the water are to be found in the steam; and though gold may be dissolved by the action of a solvent, yet may the gold be recovered from its solution; and though the green tree may be consumed, yet the products of its destruction contain the elements that compose it;—forms and characters of aggregate bodies may be destroyed, but the elemental particles that were the essential of these forms are indestructible. The affinities are at an end, but the elements exist.

It is one part of our present enquiry to place matters in such position that relations may be excited; and another part, that they may be destroyed. For it

is by these means that the knowledge of the component parts of bodies are required; and this includes the purposes of synthetical and analytical chemistry.

We mentioned above, that, generally speaking, vegetables were composed of the elements named oxygen, hydrogen, and carbon; there is another which is sometimes present—nitrogen. As the mention of these may occur very frequently in the course of the present enquiry, in consequence of the importance of their combinations, I shall at once proceed to detail some of the principal properties of each.

Oxygen\* is a gas, colourless, has neither smell nor taste. It is very sparingly absorbed by water, one hundred cubic inches taking up only four of the gas. It is neither acid nor alkaline, for it does not turn green or red the vegetable blues; nor does it appear to have any particular disposition to unite with acids or alkalies. It has a great disposition to unite with simple bodies, and the combinations with these are either termed oxides or acids.

Oxygen is termed a supporter of combustion, as the presence of oxygen is necessary to combustion, and a candle burns merely through the supporting influence of the oxygen that is combined with the nitrogen to form the atmosphere. It is necessary to the permanence of vegetable and animal life.

Hydrogen is a colourless gas, having neither taste nor smell, and, as opposed to oxygen, is called inflammable. It is the lightest matter we know. Plants or vegetables could not exist in this gas. Oxygen and hydrogen, mixed in due proportions, are the component parts of water.

Nitrogen, or, as it is often termed, azote, is colourless—has neither smell nor taste. It is not a supporter of combustion; on the contrary, has the positive effect of extinguishing it. Is destructive in its unadulterated state to animal and vegetable life. It is not inflammable.

Combined with oxygen, it forms the atmosphere.

Carbon, or pure charcoal, will be more usefully considered by us in the condition of carbonic acid, or fixed air, as it has commonly been called. Carbon itself is by far the most important vegetable principle we have to consider—it is the foundation of vegetable matter.

Its compound the carbonic acid is colourless and inodorous: it is incombustible, and positively hostile to combustion, and destructive to animal and vegetable life.

Carbonic acid is formed in the atmosphere, though only in small portions. The agriculturist will easily recognise it as that powerfully-destructive vapour which is driven from the lime-stones by the action of the heat in the kiln.

The agreeable pungency of beer, porter, ale, soda water, &c., is from the presence of this gas.—It is a compound of carbon and oxygen.

I have purposely avoided saying more here on these bodies than was absolutely necessary to be borne in mind, as those persons who may desire a more particular knowledge of these elements can refer to the valuable works that are devoted exclusively to the general principles of chemical science, such as Dr. Henry and Dr. Turner have published,

I shall now proceed to consider the influence that the atmosphere exerts on vegetation, and its general relations with vegetable life.

As before said, the atmosphere is essentially com-

\* According to the doctrine of the Atomic theory, the equivalent for oxygen is—8; but as an adherence to the minutiae of this system would only involve the object of the present paper, I shall not burden these pages with it.

posed of a definite admixture of two of the elemental gases just mentioned—oxygen and hydrogen: besides these, there is generally found carbonic acid and water.

From the experiments that Saussure was enabled to perform, in his ascent of Mont Blanc, it would appear that the atmosphere does not alter in its chemical compositions in different countries, or at different altitudes; so that we cannot attribute to its influence the relative fertility of different places: but we must bear in mind, that it is the medium whereby certain imponderable fluids, which exert very considerable power, are presented in such conditions as to be favourable to vegetation; and these are heat, light, and the electrical fluids, which all vary very sensibly in different times and places.

I have stated above, that nitrogen combined with oxygen forms the atmosphere. We may infer that this mixture is not chemical, but merely mechanical. The proportions in which they are mixed, from experiment, are proved to be definite and constant; and, according to the best authorities, oxygen forms not more than twenty per cent. Its composition stands thus:—Oxygen 20, nitrogen 80=100 parts of atmospheric air.

It is not a little singular, that this last gas, which bears so large a proportion to the whole bulk, appears to exert no positive influence on vegetable existence; in fact, excepting in some rare cases, nitrogen is not found to exist in the individuals of the vegetable kingdom: it may be assumed that its chief utility is that of a diluting medium, whereby those gases which are necessary to vegetable existence are presented in conditions that are not injurious, which, in their pure and concentrated state, they are found to be.

The natural powers of plants are such that they can withdraw from the atmosphere the aqueous vapours, the carbonic acid and the oxygen, leaving the nitrogen to go in search of other supplies of these fluids: and this leads to a matter of some consideration; for if plants are constantly absorbing these essentials to its existence, whence is derived that constant source of compensation whereby the atmosphere is ever found to contain the same elemental proportions?—the only course, as Dr. Turner shows, by which oxygen is known to be supplied, is by the action of growing vegetables; a healthy plant absorbs carbonic acid during the day, appropriates the carbonaceous parts of that gas to its own wants, and evolves the oxygen with which it was combined: during the night indeed, an opposite effect is produced: oxygen gas then disappears, and carbonic acid is eliminated; but it follows, from the experiments of Priestly and Davy, that plants during twenty-four hours yield more oxygen than they consume.

Whether living vegetable make a full compensation for the oxygen removed from the air by the processes above mentioned, is uncertain. From the great extent of the atmosphere, and the continual agitation to which its different parts are subject by the action of the winds, the effects of any deteriorating process would be very gradual, and a change in the proportion could be perceived only by observations made at distant intervals.

To the action of the oxygen we are to attribute the germination of the seed, and by its presence in the atmosphere the decomposition of animal and vegetable matters; and it will be found in these, as well as in all other instances, where oxygen is called into new affinities, that it has entered into composition with other matters, which are then said to exist in the state of an oxide or an acid: as, for instance, the oxygen of the atmosphere acting upon iron ex-

posed to its influence enters into combination with it, and the new product is termed an oxide of that metal.

Though carbonic acid has so much lower a specific gravity than the other component parts of the atmosphere, yet Saussure found that its quantity bore the same relation to the whole atmosphere at all altitudes, though it should seem that the atmosphere contained less of this acid gas in winter than in summer: it never exceeds one in one hundred, provided there is a free circulation of air.

Without doubt, if, by respiration, combustion, or fermentation, a large quantity of this gas be given out in a close apartment, there will be found a larger proportion of this fluid, and which condition is prejudicial to vegetable life; as has been proved by numerous experiments made by Guy Lussac, Decandolle, and others: it is always found, however, that as soon as opportunity occurs, such an agitation of the air by wind, &c., this over-proportion of gas is disseminated through the atmosphere until it arrives at its proper state of dilution.

Plants are constantly absorbing, during the day, this carbonic acid gas from the atmosphere:—it is then decomposed by a vital power, which is inherent in the leaves, which function is excited, according to Decandolle, by the stimulus of solar light:—the carbon is appropriated and becomes part of the plant, while the oxygen is given back pure to the atmosphere.

There are many plants, such as creepers and those growing on rocks, that derive all their carbon from the atmosphere.

I before observed that carbon was the element to be found in greatest abundance in the vegetable kingdom; and to Hassenfraz do we owe the establishing of the fact, that it is their essential food, by a series of very beautiful and conclusive experiments.

Therefore provident nature has not only dispersed it through the atmosphere, but has plentifully supplied with it many substances that are found available to the purposes of vegetation: we find it occurring in many combinations—such as limestone, various soils, manures, &c., all of which will subsequently come under our notice.

Besides this gas, the atmosphere diffused over the face of the earth is charged with aqueous vapour, but unlike the carbonic acid, which is present at all temperatures and every altitude, it is confined to certain distances above the surface of the earth; as may be assumed from observations made by those who have attained great elevations in balloons.

That the presence of these two substances in the atmosphere is not only of importance, but necessary to vegetable life, is proved by the fact that vegetables do not thrive, when, by experiment, they are subjected to the influence of a pure air—that is, an atmosphere formed only of oxygen and nitrogen.

The source of the aqueous vapour is derived from the evaporation that takes place on the surface of the large masses of water that are scattered over the face of the earth; and, as it is found to bear some proportion to the surface exposed to the air, all countries, where there are large lakes, or whose coasts are washed by vast oceans, have an atmosphere more charged with it, than those which are inland, and consist principally of a dry country.

Many circumstances, besides the locality, tend to influence the quantity of vapour diffused through the air: a far larger quantity rises during stormy weather than is found to be the case in calm; and a far larger proportion in hot weather than occurs in cold.

The following table, as determined by Saussure,

shows the proportions according to the influence of temperature:—

Degrees of the Hygrometer.	Weight of water contained in a cubic foot of air, at 66o Fah.	Weight of water contained in a cubic foot of air, at 47o Fah.
	Grains.	Grains.
10	0,4592	0,2545
20	1,0926	0,6349
30	1,7940	1,0833
40	2,5634	1,5317
50	3,4852	2,0947
60	4,6354	2,7159
70	6,3651	3,3731
80	8,0450	4,0733
90	9,7250	4,9198
98	11,0690	5,6549

The mean quantity, according to Dalton, taking up by the atmosphere in twelve months, he estimates to be about equal to thirty cubic inches.

The modifications that are effected in the arrangement of the particles of this vapour, by various causes, become of the greatest importance to agriculture:—dew, clouds, rain, and snow, are its new forms.

When the temperature of the air is diminished, some portion of the vapour is precipitated; which phenomenon may be easily understood by the table just quoted, in consequence of the diminished capacity of the atmosphere for vapour—and this precipitation is called “dew.”

The mode in which all the component parts of the atmosphere are brought and maintained together is very singular, for they do not appear to obey in any way the ordinary laws of matter, as ranging themselves according to the order we might anticipate from their different specific gravities. Nor would it be an easy task, it being inferred their relations are not chemical, to separate them by mechanical means; yet their affinities are so weak and feeble as to be very easily destroyed:—thus the carbonic acid may be withdrawn by the exposure of a little lime-water, the oxygen by the exposure of a piece of iron, as the water is by the formation of dew.

Dew is a deposit of the aqueous vapour in consequence of the radiation of cold upon a warmer atmosphere charged with it: thus the cold summer nights, after a day of heat, are favourable to its formation, and the fluid, thus afforded, yields some compensation to the plants robbed, during the day, of their fluids by the fervent sun.

While dew is a deposit, clouds appear to be an aggregation of watery vapour, sustained, by influences we do not fully comprehend, to some height in the atmosphere. According to Luke Howard, the electrical action of one cloud upon another is the cause of rain; so that, as we find rain is the distillation of water which has been first evaporated and disseminated through the atmosphere and then condensed from the state of vapour, whatever will explain this condensation must form the theory of rain; and according to Hutton and Dalton, it is thus explained:—“If two masses of air, of unequal temperatures, are, when saturated with vapour intermixed by the ordinary currents of the winds, a precipitation ensues. If the masses are under saturation, then less precipitation takes place, or none at all, according to the degree; also, *ceteris paribus*, the warmer the air, the greater is the quantity of vapour precipitated. Hence the reasons why rains are heavier in summer than in winter, and in warm countries than in cold.”

This arrangement is of vital moment to agricul-

ture; for, had the law respecting aqueous evaporation been conceived on other principles, the refreshing rains of summer would not have been present to have compensated for the parching of the sun; the heat of torrid regions would not have been lessened, as it now is, by the cooling influence of the fluid-bearing atmosphere; nor would the cold of distant and frigid countries be carried through the air, to temper the excessive heat excited upon the surface of the earth by the meridian sun.

We find, in addition, a very beautiful sequence to this phenomenon of rain; for after it has fallen and revived vegetation, it is necessarily followed by a clearness of the sky and by sunshine, which are so necessary for stimulating the growth of vegetables, and giving health and vigour to growing plants.

Snow, which is the frozen condition of this vapour, preserves, on the other hand, the productions of the earth from the intense colds of winter, which is ever found destructive if it reach their roots. In its deposit from the atmosphere it obeys the same laws as rain.

Besides the carbonic acid and aqueous vapour, many other substances, which in some measure affect the growth of plants, pervade the atmosphere: on some coasts there is a very appreciable quantity of muriatic acid gas; mullaria, odoriferous matters of flowers, and other volatile substances, are only to be discovered by the sense of smell.

The imponderable substances of which the atmosphere is the medium of transmission, are of great importance to agriculture.

Of the principles or cause of electricity nothing certain is known. It possibly may be nothing more than an essential property of matter called into action, when this matter is subjected to particular circumstances; but the phenomena which take place accord much better with the now pretty generally received opinion, “that it is a highly subtle elastic fluid, too light to affect the most delicate balances, capable of moving with extreme velocity, and present in all bodies.”

Its power and properties in bodies that are excited are diffused in every direction, diminishing as the squares of the distance; thus obeying the same laws as light and caloric. Its phenomena are of such importance and magnitude, as to entitle it to be ranged amongst the most energetic principles of nature.

Thunder and lightning are some of the results of its power, and every agriculturist is aware of the influence exerted by such storms on vegetation; and a fair inference may be drawn, from these and other observations, that the superior value of natural rains over artificial waterings and irrigations mainly depends on the peculiar conditions of the atmosphere. What these peculiar conditions, and what their fixed effects on vegetation, are, have not been very clearly defined; but we are aware that all matters which are the medium of its transmission are subjected to very considerable electrical changes, during which peculiar effects on vegetable life are eliminated. Du Hamel has made the remark, that vegetation is most active in stormy weather, and that the more fruitful crops are the produce of such seasons; and he contrasts the experience of many years to show the truth of his deductions. It is not a little singular, though it is an additional proof of the power that electricity has over vegetation, that mushrooms are destroyed in thunder storms; and those who cultivate them are so well aware of this, that on these occasions they remove them into caves or pits.

Many experiments have been performed, illustrative of the prodigious effects of this subtle fluid on

vegetation, which it would be here tedious to particularize; that which most bears upon the present inquiry goes to show why the *natural* rain is so beneficial—for it was found that grain germinated more rapidly in positively, than in negatively, electrified water: and experiment has also proved, that clouds dropping rain are, generally speaking, negatively electrified; while the surface of the earth, like the water, is in a state of positive electricity.

Those desirous of following up this most interesting enquiry, would do well to consult the excellent works of Sir H. Davy, Decandolle, and Hutton.

The matters of heat and light are essential to vegetation: deprived of these, their natural functions are not excited, and they cease to exist.

Of the matter of heat, or caloric, as it is termed in the language of science, there is, no doubt, a very large quantity disseminated through the atmosphere and the bodies composing the earth. Experiment has proved that the solidity and fluidity of bodies depend upon the subtracting or addition of the matter of heat; for it is found, that as caloric is added to the particles of bodies, it tends to separate and modify their molecular attraction, and weaken their affinities: thus, for instance, caloric added to water converts it into steam, which, by its abstraction, recurs to its former condition, or even to the solid state of ice.

The temperature of the atmosphere varies with its elevation. The reason is this:—Gaseous fluids permit radiant matter to pass freely through them without any absorption, and therefore without their temperature being influenced by their passage. The atmosphere is not heated by transmitting the rays of the sun, but receives its caloric solely from the earth, and chiefly by actual contact; so that its temperature becomes progressively lower as the distance from the general mass of the earth increases;—and for this reason it is that vegetation ceases at high elevations. As an illustration of the above, I may state, on ascending Carin Gorum on 23d August, 1823, the temperature of the low country was oppressive; at the summit the thermometer stood at 34 deg. Fahr.

Elements, whose natural existence is gaseous, but become solid in consequence of combination with other matters, regain their natural condition, if heat sufficient be applied to destroy the affinities which had been excited.

We must also bear in mind, that various physical phenomena are attended by the evolution of caloric, and on which depend the efficacy of many of the processes of agriculture, and the changes excited in bodies by new affinities, whether these changes be effected chemically or mechanically.

Caloric has what is termed the power of radiation; therefore we find that all bodies, no matter what they are, if in juxta position, become of the same temperature—the deficiency of the one being compensated by a gain from the other: thus an equilibrium is produced.

Many circumstances, tending to the variation of the temperature, will come under our notice in the discussion of agricultural affairs. Of course the changes effected by the distance of the sun are the most important; but those effected by the various compositions and decompositions of animal and vegetable matters become of vast importance.

The natural effect of heat is to dilate bodies, and to enfeeble the force of that powerful cohesive attraction which unites their molecules, so that the action of different and opposing affinities is facilitated, paving the way for new combinations: so that we find the changes of temperature which the atmosphere

undergoes in the course of the year are such, that some liquids pass into vapours, others into solids. In the application of this, we may trace all the phenomena attending the formation of dew.

According to this law, heat of a certain temperature renders more fluid the juices of a plant, facilitates their movement through the cells and vessels, excites its organs, and gives an activity to the suckers of the root whereby it absorbs the juices contained in the earth: but, above that point before alluded to, it dries up the plants by facilitating the evaporation of the water, and, by thus taking away its fluids, thickens those matters which are dissolved in them, by which the circulation becomes impeded in the dry and shrivelled vessels, causing vegetation to be arrested, and, as a sequence, life to be suspended. These are the effects that take place during long droughts, when it is found that the night dews are not sufficient to repair the loss occasioned by the transpiration and evaporation of the fluids. This noxious effect would take place more frequently, had not ever-providing nature employed means to moderate the influence of the heat.

The first of these depends on the evaporation of the fluids from the vegetable itself; for as the effect of evaporation is to decrease temperature, we find that, through its influence, the heat is modified to that point which the vegetable can sustain. The second means exists in the organization of the leaves, which is that portion of the vegetable in which the function of transpiration exists: for that surface which is exposed to the direct rays of the sun, is covered by a thick and glossy epidermis, which has the power of repulsing the caloric rays. This glossiness depends on different circumstances: in herbaceous plants it is, for the most part, silicious or flinty, as is found in the grasses; in other plants it appears to be analogous to wax, gum, resin, honey, &c.

The epidermis which covers the subsurface of the leaf is thin and transparent, and through its vessels the absorption and transpiration of the fluids principally take place. The natural position of the leaf, caused, as it is assumed, by the stimulus of light, is a striking example of the wisdom of the creation; for this latter part is ever underneath, sheltered of necessity from the light, enjoying the cool of its own shade; while the former-mentioned side, with its refractive powers, resulting from the glossiness of its surface, is that which is exposed to the light: so strong is the natural tendency to proper order, that if, by mechanical means, it be reversed, the position of the leaf will shortly establish itself in its former situation.

When the temperature falls below the medium point, the fluids are condensed, the movement of the juices is retarded, the activity of the organs are diminished, the vital functions languor, and eventually become suspended; in which state they remain, unless an increase of temperature ensue to reanimate them.

As a converse to what was said, when speaking of the compensating influence of the evaporation from the plant in hot and oppressive weather, we find that the action of atmospheric cold, when applied to a plant is modified by the emission of caloric from the plant itself; for, as its substance and juices become condensed, their capacity for caloric is decreased; and, on this account, we find, in winter, that plants are a few degrees warmer than the atmosphere. Besides this, as the earth is warmer in winter than the atmosphere, the fluids which the roots absorb are also warmer; and as the fluids themselves, and the wood through which they circulate, are bad conduc-

tors of heat, a superior temperature is supported: and as the earth is colder in summer, the very converse takes place, in obedience to the same laws; from which circumstances, we are enabled to state, that plants have in themselves an inherent power of resisting extremes of temperature, according to the quantity of fluid contained in each plant—the consistence of the fluids—the slowness or quickness of the circulation of these fluids—the quantity of atmospheric air contained in the fluids or solid parts—the form of the cells, &c. &c.

But, though they have this faculty of supporting extremes of atmospheric variation, and, from the nature of their component parts, are enabled to keep up an approach to a certain equilibrium of temperature, and which is all to be explained by the common laws of physics; yet it does not appear, as some eminent naturalists have supposed, that they have any independent vital power of generating heat, and in maintaining a fixed temperature. An extensive series of experiments on the variations of temperature has been made by many, especially by Professor Schubler, of Tübingen, with a view of settling this point; and as the results of these observations are, on many accounts, interesting, I shall offer a condensed view of them here.

No perceptible heat is evolved by trees during the process of vegetation: their mean temperature is that of the atmosphere, or even a little lower; which last circumstance is, probably, owing to the constant evaporation which takes place from the surface.

During severe cold, the temperature in the interior of most indigenous trees often sinks several degrees below the freezing point.

The temperature of trees sinks less rapidly after it has once got below freezing: this is most probably to be attributed to the heat evolved during the congelation of their juices, which, in a certain degree, counteracts the effects of cold till the tree is frozen in the centre.

When a thaw sets in, a phenomenon, in some respects the converse of the foregoing, takes place: the temperature of trees, which have been frozen and cooled considerably below the freezing point, rises with less rapidity than when the heat is above that point.

On comparing the mean of entire seasons, it appears, that in summer, trees have a lower temperature, in proportion to that of the air, than in other seasons. It is very probable that this is owing, partly to the copious evaporation from the surface of the tree in warm weather, and partly from the cold temperature of the watery fluid absorbed by the roots from the deeper parts of the soil, which absorption is most abundant during the heat of summer.

The temperature of trees in spring is somewhat higher than that of the surrounding air: this apparent exception may be explained, when it is recollected, that in our climate the heat of the deeper parts of the soil, from which trees then largely extract nourishment, is usually greater in March and April than that of the air; and that the surface of the tree itself, so long as it is not shaded by foliage, may be heated directly by the sun's rays, whilst, in such circumstances, it loses very little heat by exhalation.

The juices are actually frozen during severe cold: the degree to which frost penetrates in different trees is found to be proportionate to the quantity of their watery constituents, and the openness of their texture.

It follows, as a general result of these observations, which, in the main, agree with the laws already

laid down, that the temperature of plants is modified by many different circumstances;—that they do not, indeed, like the higher animals, possess the faculty of evolving heat in their own vital processes; \* but that they have the power of conducting heat from the air, and from the soil, in proportions varying with the course and impulsion of the sap, and of giving off part of it again by evaporation; so that, being bad conductors of heat, their more equable temperature must necessarily be sometimes either higher or lower than the more variable temperature of the atmosphere.

Dr. Göpsert, of Preslaw, endeavours to show, by numerous experiments, that the sap in plants freezes in winter, when the cold is severe, without injury to life; that the changes which plants undergo, when they are killed by cold, do not exist in a bursting of their vessels or cells, but solely in an extinction of vitality, which is followed by changes in the chemical composition of their juices; so that the effects of cold on vegetables are not always directly proportionate to its degree, but are modified by the relative state of development in the vegetable, together with numerous other circumstances connected with atmospheric changes.

When a plant withers and dies, after having fulfilled its destiny of forming seed, then the action of heat is modified by none of the vital influences that are excited during life, and its impressions are received according to the fixed laws of physics, as opposed to those of vitality.

If, however, the temperature should fall below a certain point, which point must be relative, depending, in a great measure, on the nature of the plant, its death ensues, and its fermentation and putrefaction is accelerated when a higher temperature returns; thus becoming, in its turn, a source of heat, and a furnisher to the earth of matters proper to the nourishing of its species.

That the action of light on vegetables is of very great importance, is well known, but its intimate relations have not been particularly studied: we know that there are calorific rays, and rays of light, and that their powers are different. Amongst its effects are the influences it exerts on the growth, colour, and perfume—the opening of the petals—the unfolding of the leaves—the erection of the stalk—and the absorption and respiration of carbonic acid gas.

If two plants are exposed, one to darkness, the other to the sun, in inverted bell glasses, with an atmosphere, containing a known quantity of carbonic acid, after twelve hours it will be found, that, in the first the quantity of oxygen, or of carbonic acid, has not diminished; while on the contrary, in the other the quantity of carbonic acid is diminished, and the free oxygen increased.

If two similar plants are placed under different bell glasses, exposed to the light of the sun, the one with an atmosphere deprived of its carbonic acid, the other having the ordinary proportion, we shall find, after a few hours, that the atmosphere of the first vase has undergone no change; while that of the second presents an increase of oxygen proportioned to the carbonic acid which has disappeared. If an analysis of the plant be carefully performed, it will be found to have increased itself by a proportionate quantity of carbon: so that, we conclude, the carbonic

\* Though I am obliged to subscribe to this, as experiment and observation will not warrant any other conclusion, yet I am convinced, were science more certain, that we should find plants, like animals, are possessed with a power of generating heat.

acid has been decomposed, its carbon appropriated to the plant, and its oxygen rendered back to the atmosphere; and this is effected by the interference of light.

The deduction from these facts is this, all things being equal:—That the quantity of carbon combined with a vegetable in a given time, is in proportion to the quantity of light to which it has been exposed. As the carbon forms a chief portion of the vegetable world, we infer it is circulated through the plant, and, after having entered into the formation of its different parts, becomes again under the influence of light.

If the light be too strong for the nature of the plant exposed to its influence, the several functions whereby the plant is nourished, such as the suction power of its roots, the exhalation of its leaves, and their function of decomposing carbonic acid, are performed in excess, and a proportionate defect accrues in perfecting the seeds, few or none of which are then ripened.\* If the light be too feeble, these necessary functions are not completed, and the plant becomes pale and dropsical. Many effects which are popularly ascribed to the influence of the atmosphere, are, in fact, due to the action of light: thus there is an increased produce from corn which is grown upon ridges alternating with others, which are allowed to lie fallow; and thus the more robust condition of such trees as grow on the outskirts of a forest must be attributed to the greater light which they enjoy. But, as a consideration of this encroaches upon vegetable physiology, I refer those curious in the inquiry to the works of Decandolle and Richard, who have largely written on it.

In concluding these, which may be termed introductory observations, I offer no apology for their brevity, as my intention was to say no more than would bear upon the subject matter of inquiry. Those who are acquainted with physics generally, will see nothing of novelty in the principles here developed; and those whose attention has been devoted to vegetable physiology, will recognize their application; but I deemed it necessary thus to preface, in order that the topics which will be the subject of my future consideration, might be fully understood. In the next article I shall enter into the discussion of the chemical composition of soils and their manures, and, where opportunity offers, shew the application of the principles laid down to the agricultural position of this county.

**STALL FEEDING.**

Stall Feeding, which is now become so much more common throughout the country than formerly, has had the effect of making meat in most years as cheap in the spring as in the autumn, which it used not to be; consequently stall-feeding, of late, has seldom turned out to be profitable, but often, as I have experienced, a serious loss. Meat cannot be laid on lean beasts in the stalls, to repay the expense of the food they consume; the only chance of making stall-feeding answer is, to put in the beasts which prove to be only three parts fat at the latter end of the autumn, when grass will no longer improve them, but which will in the stalls, increase in their weight, and improve in the quality of their meat; still however, if the price of beef when these beasts be-

come fat should be the same as when they were put into the stalls, the expenses will not be repaid. Meat must be a penny a pound more in the spring than it had been in the autumn, to repay the great expenses of stall-feeding. It is carried on to a very large extent in Norfolk and Suffolk, and although from the great expense of oil cake consumed, the farmers certainly must lose by every beast they feed, still they must continue the system on their large arable farms, for the purpose of turning their straw into good manure.

On beasts being tied up, white turnips will do for the first week or so; they keep beasts cool inside, but there is so very great a proportion of water in them that they are not of half so feeding a nature as Swedes. Those who have mangel wurzel should keep it as a corps de reserve, for spring, or severe frost when the turnips are frozen, which are often given to beasts almost as hard and as cold as stone, and which in such a state cannot be good for them. The turnips should be cut—there are many machines for cutting and slicing. The machine I use, and like better than any I have seen, I have had five and twenty years; it was made at Banbury, turns very easily with a large fly-wheel, and cuts the turnips very expeditiously into irregular pieces, which I prefer to slicing them. My method of feeding, when the beasts have been up a little time, and when on what I call full feeding, is thus:—first feed in the morning, half a bushel of cut turnips, and afterwards half a bushel of cut hay, with about a quart of meal in it. These feeds repeated at noon; in the afternoon a feed of turnips, and supped up at night with hay in the rack, and three oil cakes in the manger. Should oil cake be cheap, give more of it, and less of meal. The difference of the weekly cost of my way of feeding is as hereinafter stated.

Oil cake at 12<sup>l</sup> per thousand in London, with the cost of about 2<sup>l</sup> per thousand getting home, will bring the cost of each cake to very nearly three pence halfpenny. At 10<sup>l</sup> 10s to three pence.

The different weekly cost of feeding for each beast will be as under:—

	s. d.		s. d.
10½ bushels of turnips .....	3 6	Half a bushel of linseed .....	3 6
1¾ cwt. of hay .....	5 10	Three gallons of meal .....	1 6
		1¼ cwt of cut and uncut hay .....	4 2
		Turnips .....	3 6
	9 4		12 8
Turnips .....	3 6	21 oil cakes at 3½d .....	6 0
1½ cwt of cut and uncut hay .....	5 0	Three gallons of meal .....	1 6
Half a bushel of meal .....	2 0	Cut and uncut hay .....	4 0
	10 6	Turnips .....	3 6
			15 0

No food can be given to stall-feeding beasts that will fatten them so soon or so well as linseed oil-cake. It certainly is expensive feed, but not so expensive as it appears to be, taking into consideration that it fattens quicker. The expense of it compared with other stall-feeding food is thus; when it costs the consumer at home 12<sup>l</sup> 10s per thousand, each cake said to be 3lbs (but never are quite so much,) the stone of 11lbs costs 1s 3½d. Linseed, at 56s per quarter, 1s 11d. Barley meal, when the price of good grinding barley is 26s per quarter, the stone will be about 11d. The stone of bean meal, when beans are 32s per quarter, the

\* Vid. article in Foreign Quarterly Review, for April, 1833.

same. Some winters I have fed with linseed instead of cake, and found it answer very well, although it added to the trouble of feeding. My mode of preparing it has been to break it in a little hand-mill, and steep it in cold water, in seven tubs, of a size sufficient for one day's feed; in this way it will have been steeped seven days before it is mixed with cut hay and barley, or (that which is better) bean meal: if steeped in hot water, two days will do; if steeped longer than three, it is apt to get a little sour, which I think not quite so well for the beasts. There are annually great importations of linseed, from which I conclude that it can be imported at a less price than it can be produced here. It is grown pretty extensively in some parts of the kingdom; it is however to be regretted that the cultivation of it cannot be more general, and prevent the necessity of such great importations; and thus circulate amongst the English farmers a large sum of money which now finds its way into the pockets of foreign farmers. I have not yet made such use of wheat in feeding as to enable me from experience to speak decidedly about it. I have hitherto used only my tailing wheat, ground with barley, and thought it answered very well; but I hear of numbers of beasts being now fed entirely with wheat; and, it is said, quite as well fed, and at a much less expense than with oil cake at its present price. The way of preparing it for feeding is thus: steeped thirty-six hours; then laid for five days on a brick floor, turning it over once a-day; then laid on a boarded floor, about six inches thick; in two days it will be fit for use. One gallon and three quarters, in the grown state, per day, for each beast, is said to be about equal to one bushel per week of dry wheat. Having lately seen one ox that was said to have been entirely fed on wheat, leaves no doubt in my mind that it must be a very nutritious food for beasts; I cannot, however, restrain some feelings of regret that this grain, intended only for the use of man, should be thus appropriated. Most likely, after two more harvests, the price of beans and barley will correspond, as it used to do, with the price of wheat, and then it will no longer be given as food for beasts.—After all the great trouble and expense of stall feeding, this mortifying circumstance has frequently occurred: the beasts are sold in the London market at a ruinous price to the stall-feeder, at less than they would have made in any other market; the butchers knowing that the beasts, having been so much knocked about in Smithfield, could not be turned out of an overstocked market to come into the next, have frequently bought them at their own prices. It will not be thus when the Islington Market is quite established.

I have given rather lengthened details of stall-feeding, from its having been for some years my hobby; but I confess rather an expensive one; no fox-hunter, however, can look with greater pleasure on his stable of fine hunters than I have at my stalls of fine beasts. I have tied up several years, in the course of the winter, one hundred and fifty beasts; at this time, (December, 1885,) I have only forty, chiefly well-bred Durhams, grazed in this county, and I never had beasts that improved faster. I have some fine Herefords, bought good meat at Hereford October fair, but from the drift home (as is always the case) they made little progress in feeding in the first three weeks of their being tied up. If beasts that are put up in warm places to stall feed have a great

deal of long hair on their chins, top of their shoulders, and necks, it is a good plan to cut it off, for when the beasts are thriving, they perspire much in their fore quarters, the long hair consequently gets matted together, and makes them very itchy and uncomfortable; brushing also tends to their comfort and expeditious feeding.

Many beasts are subject to be blown after eating their green food, in such case let them be kept moving in a yard till the swelling goes down. If cutting to let the wind out be necessary, it should be done with a pen knife on the left side, between the haunch-bone and the first rib.

It is not very probable that either grazing or stall-feeding will ever again prove a profitable concern. Great quantities of fat beasts and pigs will be imported from Ireland, even should the condition of the Irish poor improve so decidedly that the consumption of meat be increased two-fold, for Ireland would still be capable of producing a sufficient quantity for export to depreciate the price of stock in this country. Those will have the best chance of making a profit of grazing who can get beasts forward in winter, and who have rich grazing land to make them early ready for market, there being generally a fair demand for good beef in the months of July, August, and September. Times will not admit of giving exorbitant prices for fancy breeds; still, however, I have found that it well answers to give something more for beasts which evidently show some good breeding, as such will fatten much sooner than mongrels, and therefore at less expense, and although there is not now the same difference as there used to be in the price of meat of various qualities, yet the finest is most readily sold at the top price of the market. There cannot be a question but that in the large breeds of cattle, the competition is between two breeds only—the Hereford and the Durham. I retain the same opinion as to the merits of these two excellent breeds, as I expressed more than twenty years ago. For grazing I prefer Herefords—for stall-feeding Durhams; having found that the latter increase faster in weight, and that if highly fed they become more even carcasses of beef, and are less likely than many of the Herefords to prove patchy. It must, however, be admitted that from their larger frame they consume more food than Herefords. My idea of a good beast is, that it should have a straight and flat back, projecting hips, deep fore quarters, wide chine, sloping shoulders, good head, with prominent eyes, deep and bowed ribs, projecting bosom, good purse and flank, and not thin thighs.—*Hillyard's Practical Farming.*

Although good workmen, generally speaking, are more likely to meet with employment in Van Dieman's Land than in the over-peopled districts of England, it cannot be said that there is much *immediate* want of either. Labourers obtain from 3s to 3s 6d per day, and sometimes 4s, while mechanics vary according to the trade and demand from 5s to 7s and 8s per day. Experienced gardeners, millers, trustworthily overseers, and, we grieve to add, teachers, must not expect more than from 25l to 30l and 40l, and rarely 50l per annum, with board and lodging. A few good dairy women might get employment at 12l a year.—*Hobart Town Courier.*



## THE SHEEP.—No. I.

[FROM THE DUMFRIES HERALD.]

We have received from a very ingenious friend a series of papers on the SHEEP, containing so much learned and curious information, and so many speculations, as well original as selected, that we need make no apology for laying the whole before our readers, so many of whom are connected with this important branch of husbandry. This week, accordingly, we present them with No. I. of the series. We by no means pledge ourselves to all the opinions of our talented correspondent; and we can hardly expect that the practical experience of many of our farming friends will not detect points in these papers at least doubtful, if not openly at variance with what they experimentally know. Where such errors occur let our readers indulgently correct them for themselves, and still be pleased with what is unquestionably valuable in the lucubrations of our correspondent. The following is his

## PREFACE.

The importance of the subject obviates the necessity of an apology, in presenting to our readers a series of papers on the sheep. Many works there certainly are, which touch in a casual manner on unconnected points in the history of this animal, and many also devoted to some one in particular of its diseases, but there are few, if any, which afford, in little compass, a correct view of every thing that has been said about it for the last 6,000 years—not that we intend presenting to the public an unbroken chain of information, for that, in spite of extensive facilities for reference, is beyond our power, owing to the numerous blanks that must necessarily occur in the scattered observations on its progress down the stream of time. Little, if anything, original can be said, but where opportunity offers we will not hesitate to draw our own conclusions from the mass of evidence, seeing it is in many parts faulty in the extreme, and only to be corrected by an attentive observer of the whole. Though this our first division of the subject may by some be reckoned trivial, yet on attentive consideration it will be found that the history of the present animal is as nothing without the history of the past. That its remote history is so interwoven with the transit of mankind, from barbarism to civilization, and our remarks on its structure and varieties so intimately connected with our views of its diseases and value, as to entail upon us, by neglect of the one, neglect of the other, and by so doing oblige us to remain, to borrow the words of Sir Isaac Newton, like a child picking up pebbles on the shore of the vast ocean of truth.

The works from which our information is culled will, in general, be mentioned, as the desire of giving "old ill-told tales for new-born anecdotes" is luckily far from us, thus putting it in the power of the gentlemen farmers,

"Who, in large mansions, live like petty kings,  
And speak of farms but as amusing things;  
Who plans encourage, and who journals keep,  
And talk with lords about a breed of sheep,"

to follow up, at a small expense and trouble, those investigations which to us, for want of similar aid, have been laborious.

## HISTORY OF THE SHEEP.

Campbell, that princely poet of our battle fields,

beautifully exclaims in his warning of Lochiel, "coming events cast their shadows before," and beautifully was the event—the mighty atonement for our sins—forth shadowed in the offering, at the Christian altars, from time immemorial, of the fleecy people.

The earliest notice of this interesting animal occurs in Genesis (B. C. 4004,) where Abel is mentioned as a keeper or feeder of sheep, and after a great lapse of time the flocks of Lot (B. C. 1918) receive a passing tribute. Immediately following, and occurring in rapid succession, we have points in its history which deepen our interest in its study, as here we have the first account of its being used with other animals by Abraham as a sacrifice (B. C. 1913,) and of Abraham being prevented offering up his son Isaac by God substituting a ram (B. C. 1872.)

Rachel, the "beautiful and well-favoured," appears to have been the first shepherdess, and to have been wooed and won by Jacob while tending the flocks of her father Laban (B. C. 1760.)

Jacob was an excellent shepherd, and made good the losses which his master sustained both by day and night. The striking physiological experiment of which he was the planner, shews, in the minuteness of its details, the advanced state of philosophical enquiry even at that remote period; the last verses of the 30th chapter of Genesis, containing in fact the sum and substance of many a bulky modern treatise. That "the cheerful tendence of the flock" was at that time, as at present, a source of delight only to certain nations, is proved from a shepherd being mentioned in the 46th chapter of Genesis, as an abomination unto the Egyptians; and a little further on Pharaoh is represented as appointing the active men in the train of Jacob as *rulers* over the Egyptian cattle.

Moses (B. C. 1571) assisted the daughters of Jethro, priest of Midian, to water their father's flock, and in return for this service received one of the daughters in marriage, becoming afterwards a shepherd.

Pharaoh, in permitting the departure of the Israelites, endeavoured to detain their flocks (B. C. 1491), from which circumstance we may infer them to have been of considerable value. In the same year we notice the institution of the Passover, in which a lamb was to be the sacrifice, one for each family; and the first born of man and beast are commanded to be redeemed by a lamb. Among other offerings for the tabernacle, mention is made of "rams' skins dyed red," and shortly after two rams are sacrificed during the ceremonies of consecrating the priests. No other mention of importance is made till the Lord commanded Joshua that "seven priests shall bear before the ark seven trumpets of rams' horns," being the first record of their use as warlike instruments.

Homer, (B. C. 907) in giving us a peep at Venus as she appeared to Helen on the walls of Troy, and alluding to her disguise, says—

"To her, beset with Trojan beauties, came  
In borrowed form the laughter-loving dame;  
She seemed an ancient maid well-skilled to cull  
The snowy fleecy, and wind the twisted wool."

Thus proving the existence of the useful arts to have been much indebted at that time to the fostering protection of the ladies, and shewing by the term "ancient," not that the use of the distaff was confined to ladies up in years, but that skill in its employment was only to be obtained by

a long term of servitude. In this pastoral age much care was bestowed on sheep, the habits of which were carefully attended to; thus Homer speaking of Æneas and his followers—

“ In order followed all the embodied train,  
Like Ida's flocks proceeding o'er the plain;  
Before his fleecy care, erect and bold,  
Stalks the proud ram, the father of the fold.”

Sheep are the burden of many of Virgil's themes (B. C. 19); he alludes in some places to woollen thread, and appears to think highly of Tarentum as affording excellent pasture—

“ But if thou herds and steers delight to keep,  
Or goats that burn the corn, or fleecy sheep,  
Seek pleasant groves, and rich Tarentum's coast,  
And plains which woful Mantua bath lost.”

Phædrus, (A. D. 33) in his beautiful fable of the wolf and the lamb, prettily shews how the innocent are oppressed upon groundless pretences; and in his conversation between the dog and the lamb gives us to understand that in his day white sheep were preferred to black, the latter, when occurring in a flock, always being marked out for speedy slaughter.

The Carthaginians are supposed to have been the inventors of that destructive engine, the battering ram, which is inferior only to artillery in the forceful nature of its appeals to masses of masonry, and were, no doubt, led to its discovery by witnessing the fiery assaults made by the males of the flock, one on another, in the way that sails were copied from that ancient mariner, the Nautilus, and the use of frames in tunnel-making from that secret enemy of our wooden walls—the teredo.

The Egyptians were more celebrated for attention to fine linen than the growth of wool, as doubtless the banks of the “father of waters” were better suited for the production of lint than as pasture-ground for so delicate an animal. The attention, however, which they bestowed not on our favourite, was amply compensated for by the Romans, who, from the peasant that rested content with his colourless robe, to the noble who enjoyed in easy splendour his “Tyrian purple,” were passionately addicted to a luxurious envelope of flannel.

The Rev. John Hartley, who travelled as a missionary in Greece, informs us that what is said in John x. and 3d, “The sheep hear His voice, and He calleth His own sheep by name,” expresses correctly the state of the flocks at the present day, it being customary for the shepherds to bestow names on the individuals of the flock, so that any sheep can be readily singled out. Those that have not learned their names are said to be wild. This appears to be the case in Southern Africa, as Burchell remarks the facility with which the Hottentots can distinguish the features of each sheep.

Pennant, after an attentive perusal of the early writers, gives it as his opinion, that this animal was not cultivated among the Britons for the sake of its wool, as the people of the inland parts of this island went either entirely naked, or covered only with skins. The most civilized who, as might be expected, lived only on the coast, affected the manners of the Gauls, and wore, like them, garments of wool termed *brachæ*, from which, doubtless, is derived our unmentionable word *breeches*. It is curious to observe that French toggery was then as fashionable as at present, as he conjectures from there being no mention of manufactures that the

*bloods* of those days received their *brachæ* from the Continent.

In an epistle by one Yuo of Narbona to the Bishop of Bourdeaux (recorded by Mathew Paris, A. D. 1243,) containing the history of an Englishman who lived among the Tartars, we are informed that the Tartar-men leave the care of their flocks entirely to the women (*virî de gregibus aliquantulum habent curam sed venantur*;) and immediately after he adds, “they are truly rich in camels, oxen, goats and sheep,” (*in animalibus valde divites sunt et in camelis et hobus capris et ovibus*.)

A French minorite friar, William de Rubruquis, in his journal kept while in the eastern parts of the world, about A. D. 1253, or ten years after the above mentioned letter was penned, says, concerning the Tartars, “As for sheep and goats they tend and milk them as well the men as the women; with sheep's milk thickened and salted they dress and tan their hides,” (*oves et capras custodiunt maxime et mungunt aliquando viri, aliquando mulieres—de lacte ovium inspissato et salso parant pelles*.) He remarks in chapter 7th, that “the poorer sort of men line their clothes (which were of skins) with cloth, which is made of the finest wool they can pick out; and of the coarser part of the said wool they make felt to cover their houses, their chests, and bedding also; of the same wool, being mixed with one-third part of horse hair, they make all their cordage. They make also of the said felt coverings for their stools, and caps to defend their heads from the weather, for all which purposes they spend a great quantity of their wool.” The women, however, appear to have been fonder of gew-gaw-finery than of the substantial comforts of a woollen garment, though, unlike the refined ladies of the present day, they did not attempt an air of fashion by going in a state of comparative nudity.

Sheep are placed in the class Mammalia, order Ruminantia, and, according to Cuvier, are solitely entitled to a generic separation from the goats, that, with the latter, they produce mongrels capable of reproduction. The species are four, but the varieties are innumerable, as they are only inferior to the dog in liability to vary and to become the accommodating creatures of circumstances. The horns of the sheep are directed backwards, and then incline spirally forwards; the forehead is generally convex, and there is no beard. The great progenitor is supposed to have been the Argali of Siberia (*ovis amon*) an animal inhabiting the mountains of Asia, and attaining the size of a fallow deer. The male has very large horns, with three rounded angles at the base, flattened in front, and striated transversely; the horns of the female are compressed and hook-shaped. The hair is short in Summer, and of a fawn-coloured grey; in Winter it is thick, rigid, and of a reddish grey, with some white about the muzzle, throat, and under the belly. The Mouflon of Sardinia (*ovis musimon*) differs from it only in its inferior size, and in the smallness of the horns of the female.

The Mouflon of America (*ovis montana*) closely resembles the Argali, and is supposed by some to be identical with it, and to have crossed from Asia to America, at Behring's Straits, by means of ice.

The Mouflon of Africa (*ovis tragelaphus*) appears to be a distinct species, and is distinguished by its soft and reddish hair, by its short tail, and by a long mane hanging under the neck, and another at each angle. It inhabits the rocky districts

of Barbary, and has been observed in Egypt. In common with the rest of the ruminating animals, they have eight incisors in the lower jaw, which are unopposed by any in the upper, a callous pad which is substituted being attached to the distal end of the inter-maxillary bones. Between the incisors and molars, or grinding teeth, is a vacant space of about an inch and a-half. There are twenty-four molars, six on each side of each jaw; their crowns are marked with two double crescents, the convexity of which is turned inwards in the upper, and outwards in the lower ones. The ram, ewe, and wether lose the two fore teeth of the under jaw when one year old; six months after they lose the two next to these; and at three years the teeth are all re-placed.

As the Chevrotains or Minks are distinguished with the camels from other animals of this order by the absence of horns, so are sheep, oxen, goats, and antelopes distinguished from the rest of the horned genera of the order, by the persistence of their frontal prolongations. The horn is an elastic sheath of agglutinated hairs, which increases by layers, so that the age of a ram may be discovered by the horns which appear during the first twelve months, though sometimes present at birth, and acquire a ring every succeeding year. The ewes have commonly no horns, but only a protuberance in place of them. The horn is supported by, and serves to cover, a highly vascular prolongation of the frontal bone, and it is at its root, where large vessels and nervous filaments are entering, that blows occasion so great agony to the animal, apart from the damage which the other bones sustain, by the infliction of violence on so powerful a lever. The term ruminating indicates the faculty possessed by this animal, in common with many others, of masticating its food a second time by returning it to the mouth after a short maceration. This they are enabled to do from the structure of the stomachs, or, more correctly speaking, stomach, as most anatomists have now concluded, from all animals being constructed on one common principle, that ruminating animals are not possessed of four stomachs, as formerly supposed, but only of one, which they view as being divided into four compartments. In drawing precise conclusions, we are bound only to admit the existence of two compartments, the other two belonging properly to the gullet, and being equivalent to the crop and membranous stomach of birds, may be viewed as an apparatus designed to serve a nearly similar purpose, while the real stomach will cease to excite wonder, or puzzle the ignorant, on being contrasted with that of other animals, in many of which a division exists, from which even the human stomach, though generally a single sac, is not always exempt, Dr. Knox being in possession of one that resembles a pair of small globes, joined by a narrow tube, and which, when taken from the body of a person who was advanced in life, bore every mark of soundness in texture, and must therefore have been congenital. The food, as every farming person must be well aware, descends, after being partially crushed, into what is called the first stomach or paunch, (in Latin, *rumen*, or *ingluries*), in which cavity are found those morbid concretions so much and so superstitiously prized in the eastern world, under the name of Bezoar stones; from this it passes into the second, termed bonnet, king's hood, or honey-comb, (in Latin, *reticulum*) which is much smaller than the other, and receives its name from the inner coat being arranged into cells; here it is moistened, made into pellets, and

while the animal is at rest, impelled by the anti-peristaltic motion of the tube to the mouth, and after undergoing a complete mastication, is returned through the gullet to the third stomach, or smallest compartment, which goes under the name of omasum, or manyplies, from its resembling a rolled up hedgehog, and sometimes from the longitudinal laminae of its mucous membrane, that of a leaflet. The food remains but a short time in the omasum, proceeding into the fourth division, or abomasum, which, in its structure, especially in that of the mucous, or inner membrane, is nearly allied to the same organ in the human being, and is, by the French, called *caillette*. The last is the largest of the four, as long as the animal continues to live on milk; but the paunch speedily surpasses it in magnitude when grass becomes the sole provision. The milk always passes at once into the third stomach, there being no reason why it should be returned. The intestinal canal is long; there are but few enlargements in the great intestines; and the fat, like that of all ruminating animals, becomes on cooling hard and brittle, forming tallow.

In this climate, ewes fed on good pastures, admit the ram in July or August, but September or October is the time when such would happen, if left to nature. They go with young five months, and in warm climates bring forth twice a-year; but in Britain, France, and most of Europe, they do so only once. They give milk for seven or eight months, live ten or twelve years, and, if well managed, are capable of bringing forth during life, though generally useless for that process at seven or eight. The ram lives from twelve to fourteen years, and becomes unfit for propagating at eight; the male lambs, when not intended for propagating, are emaciated at the fifth or sixth week, and afterwards called wethers, while the term *hog* is applied to sheep two years old.

We come next to the varieties of this animal, than which nothing can be more puzzling, as we are continually liable to be misled on all sides, not so much by the number of the breeds, as by the imperfect accounts which travellers, in general, have hitherto thought fit to gather for our perusal—a circumstance that becomes more remarkable, when we consider that most of them must have left our island fully acquainted with the advantages that would accrue to their countrymen, by a proper attention on their part to what they might witness relating to sheep-husbandry in climates not their own. As it matters little where, in so tangled a web, we date our commencement, we shall begin by describing the sheep of Syria and Barbary. A few lines back we described the Mouflon of Africa, as inhabiting the rocky parts of Barbary, and possessing a mane beneath its neck in this peculiarity approaching to the goat's, but this animal delighting in poor elevated pastures, differs much from its relation of the plains, whose more luxurious feeding has tended to sink some, and heighten others of its original endowments, and render it glorious in the eyes of the South African boors by the magnitude of its tail. The weight and dimensions of this woolly wonder have been much disputed by travellers; we have little doubt but they are all correct in their statements; but why so great a waste of time and labour in arguing about what must necessarily vary much in narrow limits? We may ask,

“What mighty difference can you see  
“Twixt Tweedledum and Tweedledee?”

None in the world; nor would they if they had

chanced to meet at a hospitable table in Southern Africa, with that good old literary beau, the Count de Buffon (the reconciler of their opposite statements) at their head and partake of the object of the dispute, dressed in the many forms in which African ladies alone can disguise it.

Russell, in his Natural History of Aleppo, enters at considerable length into some of the qualities of the African sheep, giving as his opinion, that though Leo Africanus and Symon Simeon saw in Egypt tails, the respective weights of which were eighty and seventy pounds, yet that tails of so great a weight are seldom met with, and when they do occur, are to be ascribed to pampering the animals with bran and barley; the average weight, according to Buffon, who cites many authors, being from twenty to thirty pounds, while according to Pennant, it is fifteen to fifty. The tail is long, hooked up, and excessively loaded with fat, which Burchell states to be of equal value with the carcase, from being manufactured into soap, and the boors informed him it was more profitable to kill their sheep for this purpose, than to sell them to the butcher for a rix dollar, as the alkali required in the process was procured in large quantity from Salsola, a plant of the Goosefoot family. These sheep are, in general, covered with hair, or a kind of fur, which, when dressed, forms a warm clothing. Marvellous in the extreme are the stories we have perused regarding the modes adopted by the shepherds to enable these deformed animals to feed without the risk of injuring their unseemly loads; our readers may perhaps smile, on being told that flat boards have to be fastened to the under surface of the tail, to prevent it trailing on the ground, but we are certain they will laugh outright, on being informed how the simple-hearted Dutchmen of the Cape Colony compel the animal to drag after it a small two-wheeled cart; and the fact cannot be doubted, when we consider the tendency of every thing living in that part of the world, from the simple subject of our tale, to the Hottentot Venus, to become encircled by a zone of pearly fat.

*(To be continued.)*

## TILE DRAINING.

(FROM BELL'S MESSENGER.)

The first point which demands consideration is the duration of the improvement; is it likely to be permanent, or will the time come when it will require to be renewed? To these questions I answer without hesitation that, in case the tiles are made of good clay, properly burnt, and laid down and covered with the precautions suggested in my former communication, there are no assignable limits to the duration of the improvement; that, in my opinion, there is no reason why such drains should not be working as effectually after the lapse of centuries, as on the year in which they are first formed. Of all known substances, especially those which are artificial, tile made of good clay, and well burnt, and placed out of the influence of frost, is amongst the most durable. We have a remarkable instance of this in the Roman villas which are occasionally discovered in various parts of this kingdom; in many of which we find pipes made of burnt clay, for the conveyance of water to and from the baths; which pipes, unless accidentally broken, are almost always in a perfect state

of preservation. Now, since the Romans finally retired from Britain, in the year 414, these pipes cannot have lain in the ground less than fourteen hundred years.

As a further proof of the durability of tile, I may be permitted to state a remarkable fact, of which I myself was an eye-witness. Several years ago, I agreed, with some friends, to search for Roman antiquities in the parish of Chilton-on-Polden, near Bridgwater. In the course of our investigation, we were so fortunate as to discover a large quantity of moulds, formed of tile, or burnt clay, and intended, and most of them had evidently been used, for the purpose of casting Roman coins; the greater part of which moulds were lying within a few inches of the surface of the ground, and barely out of the reach of frost. Though deposited, however, in a situation so unfavourable and perilous, they were still in such a state of preservation as to admit of good casts being made from them in sulphur; the fronts, reverses, and legends of which are nearly as sharp as those of our own coins when just issued from the Mint. The latest of the Roman emperors whose names appear upon these moulds, was Maximin, who died in the year 238; at, or soon after which time, almost 1,600 years ago, the most recent of them must have been made; and it is probable that, during the whole of that long period, they had been lying in the place where we found them.\*

The Romans were remarkable for executing every thing which they undertook in the best and most substantial manner; and the pipes and moulds above-mentioned afford evident proofs of this peculiarity in the character of that wise people. Though formed of common brick clay, the same material as that which is used at present for making draining tiles, it is very apparent that great attention was bestowed by them in selecting the clay, and in afterwards preparing and burning it; and to this, no doubt, may in some measure be ascribed the extraordinary durability of the articles in question. But without reckoning upon so high a degree of attention being given to the manufacturing of our draining tiles, we may venture, I think, to assert, that, on the supposition of their being made with moderate care, they may be expected to last far beyond the longest period of time for which the most anxious landowner would feel it necessary to provide; and, consequently, that tile-draining, when properly executed, may not only be considered as a most valuable improvement, but also as a permanent one in the strictest sense of the term.

This point being ascertained, that the improvement will be permanent, the next consideration is, the expense attending it; and here it is obvious that our views, as to this latter point, namely the estimated expense, will be, and ought to be, much influenced by our opinions respecting the former point, namely, the permanence of the improvement. The same outlay, which may with reason be deemed excessive in effecting an improvement of limited duration,—one which may last for instance only 10, 20, or 30 years, may justly be accounted as trifling, where the improvement shall be almost as lasting as the land itself. With respect to the expense of tile-draining, it is not possible to give an estimate, which may be applicable to the whole kingdom. In the district in which I reside, the expense per

\* A detailed account of this discovery is given in the *Archæologia*, vol. xiv. p. 92.

acre, including every thing except the carriage of the tiles from the brick-yard, I have found to be about 5*l.*; and I have never known an instance of the increased yearly value of an acre so drained to be less than 5*s.*; so that, even at this lowest rate of improvement, there is a permanent interest of 5 per cent. for the money invested, which is more than is usually made by the purchase of land. But in the great majority of cases the improvement is far beyond this. I have a field in my own occupation which was raised at once by this mode of draining, from the value of 15*s.* to that of 30*s.* per acre; and the average improvement per acre in this district may, I think, be fairly estimated at about 10*s.* As this is, as before stated, a strictly permanent improvement, it ought to be made at the expense of the owner of the land, and not of the tenant; but no tenant who understands his own interest, and has witnessed the beneficial effects of it, would hesitate to pay his landlord 5 per cent. during the remainder of his term, upon the money so expended; and, at the renewal of his lease, to increase his rent in a fair proportion to the increased value.

Having represented the expense of tile-draining in this neighbourhood to be about 5*l.* per acre, I subjoin the particulars, which may be of use to such of your readers as may intend to introduce this valuable improvement.

In almost all cases where the ground lies on a declivity, however gradual it may be, the distance between the drains need not be less than 36 feet, which makes the whole length of drains in an acre to be about 1,250 feet. They are usually cut to the depth of two feet, at least; because, if short of that depth, the tiles can scarcely be considered as out of the reach of injury from cattle, stakes being driven into the ground, and other causes. At this depth, the expense of cutting the drain is about 4*d.* per rope of 20 feet, which amounts to about 20*s.* per acre. The cost of the tiles at the brick-yards in Bridgwater is 6*s.* the hundred (that is, reckoning the arched and flats tiles in pairs, and making two hundred pieces), and as each tile is a foot in length, 1, 250 pairs are required for an acre; the cost of which is 3*l.* 15*s.*; so that the total expense for an acre, exclusive of carriage, may be stated as follows:—

	£	s.	d.
Cutting 1,250 feet of drains at 4 <i>d.</i> per rope	1	0	10
1,250 pairs of arched and flat draining-tiles, at 6 <i>s.</i> per hundred	3	15	0
Laying down tiles, filling drains, &c.	0	5	0
	<hr/>		
	5	0	10

N. B. The weight of tiles per acre is about 3½ tons.

A correspondent in a late paper of yours, "R. S. of Worcestershire," gives it as his opinion, that by using cylindrical, instead of arched and flat tiles, one-fourth of the expense may be saved, which, in these times especially, would be a saving well-worth attending to, in case it could be made without endangering the permanence and efficiency of the drains. As your correspondent appears to be a person of considerable experience, it would be very desirable to have the details of his plan laid before the public; particularly whether the tube-tiles have been actually employed to any extent in draining; for how long a time; and how they have succeeded. One objection to them strikes me to be, that there are scarcely sufficient openings for the admission of water to the interior of the tiles. Upon the plan which we follow, the water finds admission along the whole line of junction

on both sides, between the arched and flat tiles (leaving out of the account the transverse junctions); and this line, be it observed, is at the bottom of the drain, precisely where it ought to be. The length of this irregular crevice for the passage of water is two feet to every pair of tiles, or, which is the same thing, to every foot in length of the drain. In the tube-tiles, on the contrary, even supposing them to be three inches in diameter, the circumference, or line of junction, and consequently the crevice for the admission of water, can be but nine inches; and only a small portion of this crevice is on a level with the bottom of the drain. Perhaps, however, your ingenious correspondent has devised some means for obviating this and other objections which may be started, and will probably favour the agricultural world with a further communication.—

Your obedient servant,

June 8, 1836,

P.

### CUSTOMS BETWEEN LANDLORD & TENANT, AND THE INCOMING AND OUTGOING TENANT.

CAMBRIDGSHIRE.

(FROM KENNEDY AND GRAINGER'S CUSTOMS OF COUNTIES.)

A tenant is generally restricted from breaking up pasture land, and from removing either hay or straw from the premises: these are almost the only restraints he is subjected to, being otherwise allowed to farm his land in whatever way best pleases himself.

An outgoing tenant generally harvests his own crop; leaving at old Lady-day, he has time to sow all the spring crop, which he harvests as well as the wheat, and pays no rent after the time of his quitting; he is bound, however, to thresh the corn, and feed the straw upon the premises, by the following Midsummer after harvest: the incomer takes the seeds, fallow and pasture lands, at old Lady-day, but pays the rent for the whole of the land, both that which the outgoer's crop stands upon, and that which he himself takes from old Lady-day. Thus the outgoing tenant having the privilege of taking both the spring and winter crops, without either paying rent for the land they grew upon, or allowing his successor, the incomer, any part of them, the case of the latter becomes a very hard one, he having his first year's rent to make up, without the possibility of obtaining any return whatever for eighteen months; whilst the outgoer is paid for his seeds the value of them, and of the labour, and a certain rate per acre for any ploughing done by him during the winter for fallows; he is bound, however, to leave all the dung, for the benefit of the incomer.

MODE OF FARMING, IMPLEMENTS, &c.—The general system adopted in this county is two crops and a fallow: the fallow land is frequently sown half with wheat and half with barley: the most common rotation is—first, fallow; second, wheat; third, oats; or second, barley; third, beans: in some places wheat is sown on clover-leys and bean-stubbles, but this is very seldom done, either of the former rotations being found more suitable to the land.

The mode of farming in Cambridgshire appears, to strangers, to be extremely singular, and at the

same time to be very inferior to that practised in the adjacent counties. The ploughing here either for making a fallow, or at seed-time, can only be done in one way, that is to say, the land may be turned backwards and forwards in the same direction, but cannot be crossed; thus, in a barley, or other spring season, at seed-time, rushes or grass stand between the ridges in every furrow, frequently knee high: these furrows are commonly and properly called drains, as they are dug out one spit wide, with what may be denominated a whole furrow left on each side.

The land is laid up in ridges from twenty to twenty-four feet in breadth, and very high in the middle, in order that the water may the more rapidly run off; but a water furrow across a piece of land is scarcely ever seen, though it must be obvious that the less surface the water has to run over, the sooner the land will be drained. Were the land to be ploughed in ridges, a fourth or fifth of the size of the present ones, and laid up round, with a few water furrows drawn across, sufficiently deep, the ground would soon become much drier, and, consequently, work very differently in the spring to what it now does. The erroneous nature of the present system is, indeed, so evident, that the wonder is no attempt should be made to alter it, as every one must observe that upon the summit of the ridges the wheat flourishes and looks well, whilst from that point it gradually becomes sickly and yellow, until it reaches the drains, where much of it perishes.

Many of the farmers in this county, upon being asked if the land could not be laid in a different and better manner, reply, that the land in Cambridgeshire cannot be ploughed in the same way that it is in Norfolk, and, of course, there can be no comparison, because the soils are directly opposite in their nature and character; but if they were to look at some of the heavy land in Essex, or Herefordshire, they would then see that their system might easily be altered for the better. As it is, it is difficult to imagine why such a course is continued, unless it be the labour, though that would be comparatively but little, that might be required to put the land into a different shape.

With the exception of the fens, draining, which is so essential to the land in this county, is but very little attended to; and what is done, is chiefly at the expense of the tenant. The drains are principally formed by means of bushes and straw. If, however, only the surface water was to be taken from the land, it would be a vast benefit, and it could be done more effectually by laying the ground in a proper manner with the plough, than merely by draining.

The drill is generally used, as are likewise threshing machines, especially in the fen-lands. In many places a practice prevails of sowing the beans and ploughing them in.

The plough in use has generally one handle, but carries a staff, which is used as a handle, and also for cleaning the plough.

The outbuildings are chiefly of brick, and thatched, and are kept in repair by the landlord.

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A respectable farmer, residing near Stonehenge, has just sold twenty-three years' clip of wool! He shears annually about one thousand sheep; and we understand that it was so well preserved, that very little of it was damaged.—*Dorset County Chronicle.*

## ON THE CULTURE AND MANAGEMENT OF THE FLAX CROPS.

TO THE EDITOR OF THE IRISH FARMER'S AND GARDENER'S MAGAZINE.

SIR,—As few subjects appear to me more deserving of attention in *The Irish Farmer's and Gardener's Magazine* than an improved system for the culture and management of the Flax Crop, I beg leave to transmit to you the following directions, which have been drawn from the best sources of information; and although the season for sowing has elapsed, it may be well to give the various processes in their order.

1st. The ground should be so prepared during the autumn and winter that it may in the spring be in the best state, and as fine as possible, in order that the seed may be evenly sown. The land should be ploughed as early as convenient in the winter, and if a wet soil, the furrows should be shovelled in the same manner as after wheat is sown; an 18 inch ridge is best in such soil. The ground should not be ploughed again in spring, but should be harrowed as if for clover seed, and sown in the same manner. It should then be rolled immediately, if not very wet, but otherwise, as soon as it is in a fit state. If the ground be not wet or subject to flood, it may be sown flat—and this mode answers best for dry or poor soils. An idea has prevailed, that flax could be cultivated with success after potatoes; but experience has proved that excellent crops may, with proper management, be likewise produced after wheat and oats, and may be generally expected where the ground is good and fresh.

2nd. The seed should be sown as early as it can safely be done. The Dutch commence sowing in February, if circumstances permit. In Ireland, if the ground be in proper order and the season favourable, not a moment after the 1st of April should be lost in getting the seed into the ground. Great ignorance and prejudice have prevailed as to the best kinds of seed. Riga, Dutch, American, and English, all answer well when they have been properly saved. But the Irish cultivator of flax may always have at hand seed equally good, if not superior to any of these, if he will take the trouble of saving the seed. Seed is saved in the Netherlands as a matter of course, and even from the finest flax that is imported into these countries, worth 150*l* and upwards per ton. The best seed is reserved for sowing, and the secondary descriptions for crushing, &c. The flax which obtained the premium from the Royal Dublin Society this year was the produce of Irish flax-seed, without a change of seed for some years. It is advisable, however, to imitate the Dutch also in this respect, and to change the seed every third year. They import Riga for that purpose. The precise quantity of seed should depend on the quality of the soil. Four bushels per Irish acre may be considered as an average quantity. If the ground be very rich and strong 4½ bushels may with advantage be sown; but the quantity should be reduced as low as 3½ bushels per Irish acre for poor land.

3rd. The greatest attention should be given to the weeding of the crop, which should be commenced when the flax is about four inches above the ground. The pains taken in this operation will be amply repaid by the result.

4th. When the seed is perfectly formed and has become of a brownish colour, the flax should be pulled and made into bunches, as much as a man can grasp in one hand; but, in pulling, the hand should not go lower than within sixteen or eighteen inches

of the ground, lest it should take up the short flax with the long. If the flax be suffered to remain beyond the time pointed out for pulling it deteriorates, as the oily properties escape, an indication of which is given by the emission of an odour from the plant.

5th. Six bunches, as described, should be laid on each other, viz.: the first, straight on the ground; the second, aslant across at the root end; the third, in a like slant reversed across the second; the fourth, in a like slant across the third; the fifth, in a like slant across the fourth reversed; and the sixth, straight along the whole to cover it. The seed ends should be towards the sun, and the root ends of all should be together, so as to be raised and to create a slope in order that the rain may run off.

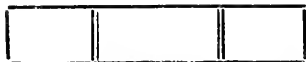
6th. After remaining in this state to dry and harden, four, five, or six days, according as the weather may be, every six bunches of the flax, when dry, should be tied together loosely, in sheaves, taking care to keep that part of the flax outside which was on the ground. Eight sheaves should be formed into a stook, the roots downwards; and the stooks should be ranged in straight files, north and south, in order to have the full advantage of the sun and wind, and that their removal to the ripple or store may be facilitated. In this way it may remain eight, ten, or fourteen days, according to the weather.

7th. When the flax is sufficiently dried, the rippling, or process of taking off the seed should immediately take place. This may be done according to circumstances, in the field, in a barn, or any other convenient place.

The ripple is an iron pin, about sixteen inches long, one inch square at the bottom, and gradually narrowing to the top. Sixteen of these pins should set angularly about one quarter of an inch asunder, in a block of timber four to six inches thick, eighteen inches wide, and sloped at each side, so as to let the boles fall the more readily on the floor, or any canvass sheet, or bag, that may be placed to receive them. In the rippling process great care should be taken to keep the flax even, and not to suffer it to entangle.

8th. The safest mode of preserving the seed is to follow the course pursued in saving clover seed in England, viz.: to form a stack and put the seed in layers on dry straw until it shall be convenient to thresh it. The first layer of straw should be placed on furze bushes, or branches, and the straw raised at least one foot high thereon, before any seed is spread on it. The stack should be completed with alternate layers of straw and seed, and well thatched.

9th. After rippling the steeping process commences—and this is the most important process which flax undergoes, and that which is least understood in Ireland. The steeping pits should be prepared in spring or early in summer, and the water should be kept stagnant therein, in order to soften. They should be seven or eight feet wide, sloping to six feet at the bottom, and from three feet six inches to four feet deep. In their formation or cleansing, a sufficiency of earth or mud should be thrown on the banks at each side, to serve as a covering for the flax, in due time. If the quantity of flax be considerable, it will be found convenient to have a range of pits separated by a narrow bank thus:—



So that the water can be removed by a shoot from the pit wherein the flax is about to be first placed,

into the adjoining one. The flax having, after rippling, been bound into sheaves, each as large as two hands can grasp, the sheaves are to be placed regularly in the steeping pit, (the water having been previously removed therefrom), the root ends of the first sheaf to the end bank, the root ends of the second sheaf on the bands of the first sheaf, the root ends of the third sheaf on the bands of the second sheaf, and so on, the root end of every layer meeting the band of the former one; and all being in an oblique direction. When three layers are completed, a light covering of sedge, grass, or straw should be put on the flax, and not less than four inches of mud on the grass or straw; then the water from the adjoining pit should be let over it by opening the cross bank as far as requisite, until the water having filled the interstices below rises over the mud, when the cross bank which separates the pits should be again made good. The mud should be well plastered, so as completely to exclude the light and air from the flax; and should any leakage subsequently occur, water should be supplied until it again rises over the mud. The proper time for steeping the flax varies from four days, of twenty-four hours, to eight days, according to the quality of the flax, the temperature of the weather, and the properties of the water and mud. The object of steeping is to detach or loosen the flax or bark from the pith or woody part, and the mode of ascertaining whether this is effected or not is, by raising the bark near the root, and also at about six inches therefrom, so as to break the wood in each place; and if the wood can be easily drawn out at the bottom, the steeping process may be considered as completed, and the removal of the flax from the pit should take place without delay.

10th. This operation should be carefully performed with a fork; each bundle should be taken separately and gently immersed in water, to cleanse it from mud, &c., and then placed on the cross bank or side of the pit to drain. After this, the flax should be carried to a meadow recently mown, or to some other convenient place, for spreading. The bundles should be carefully untied, and the flax evenly spread in rows, observing that the inside of the bundle should be now most exposed. The time the flax should remain on the grass depends in a great measure on the weather, and may be estimated at from one week to a fortnight. It is of great importance that the spreading process be well performed, because if the flax be put up in proper order, it will not be necessary to apply any artificial heat to it previous to scutching, which is not only a saving of expense, but a great advantage to the flax, as it thereby retains more of its oily properties. Previous to the removal of the flax from the field to the barn, store, or stack, it should be again made up into bundles of a convenient size—in this as in the other operations, particular care should be taken to keep the ends of the flax even.

The last process which flax undergoes previous to its becoming a marketable commodity is scutching, which is in Ireland performed either by the hand or at a scutching-mill. It is generally supposed here, that scutching can be best performed at a mill. But this is a mistaken notion. In reply to frequent inquiries, as to whether there were any scutch mills in the Netherlands, the answer has been, that there are none; and yet such is the admirable skill and attention of the industrious inhabitants, that they break, scutch, and prepare by manual labour flax, some of which in its undressed state they sell for upwards of two hundred pounds per ton.

As the directions I have submitted for the management of the flax crop differ in many respects so ma-

terially from the practice in this country, it appears desirable to exemplify the success that has attended the mode of treatment recommended in this letter, and I have permission to refer to Edward Wolstenholme, Esq., of Newberry Hall, Edenderry, who has had the kindness to furnish me with the following result of his experiment of last year—and to make several valuable practical suggestions on the subject.

Mr. Wolstenholme sowed early in April last year, fifteen Irish acres with Dutch seed of excellent quality, purchased from Messrs. Toole and Co., four bushels to the Irish acre. These fifteen acres produce 345 bushels of excellent seed, which were sold to average 7s 6d per bushel, making ..... £129 7s 6d

He has in flax produce,  
 already scutched .... 850 st. of 14lbs.  
 To scutch, at least.... 200 " "

1050 stone.

Or, 6 tons 11 cwt. 1 qr.  
 for which he has been  
 offered £60 per ton,  
 amounting to ..... 393 15 0

Being for the fifteen Irish  
 acres ..... 523 2 6

Or, per acre, ..... 34 17 6

The average value of Irish flax may be at present estimated at from £45 to £50 per ton—so that instead of the flax having been injured by the saving of the seed, the crop has, by good management, produced an article exceeding in value from 20 to 33½ per cent. beyond the average of the country.

Mr. Wolstenholme has this year sown forty Irish acres with flax, viz., thirty-five acres with seed of his own saving.

- 2 with Riga.
- 3 with Dutch.

The seed of his own saving was sown three or four days after the foreign, but came up before it, a much stronger plant and thicker in the ground, although the same quantity of each was sown—and to this moment promises to be a superior crop.

Computing that 100,000 Irish acres are sown, and that the crop of seed be but twenty bushels per acre, and the price only 6s for crushing, still the value of the seed crop would be £600,000—and if the crop of flax on 100,000 acres yielded only 7 cwt. per acre, or 35,000 tons.

This quantity at £45 would be £1,575,000

At £50 ..... 1,750,000

And, therefore, the increased value, if at £60, by superior management, would be a further gain of from £350,000 to £525,000, thus making on the crop an annual increase of income of one million or upwards from the flax crop in its present limited extent! But there can be little doubt that the increased stimulus which would be thus given by the advantageous results of improved management in the cultivation of flax would greatly extend its growth over the south and west of Ireland, where the soil is in many places admirably adapted for it; and as it has been clearly ascertained that flax is not an impoverishing crop, and, moreover, is peculiarly suited for laying down ground with clover, it does not appear unreasonable to suppose, that the extent of land under it in this country may be more than doubled, and the national advantages derived therefrom proportionably increased.

It appears, in fact, but necessary that other landed proprietors should follow the example of the estimable and intelligent gentleman who has been referred to, and who assured the writer that he would have much pleasure in giving every information on the subject to those at a distance who might desire it; he has already kindly afforded persons in the neighbourhood the means of profiting by his example. Ireland, from the climate, soil, the abundance of water she enjoys, and the extent of her population is probably better adapted than any other country for the cultivation of flax and the successful prosecution of the linen trade. If her sons do but their duty she cannot but take the lead of all other nations in this important manufacture.

Dublin, 24th May, 1836.

L. E.

### ON PRUNING THE NUT TREE.

It may be matter of wonder, but so it happens, that the generality of gardeners know little or nothing about pruning filbert trees. The art has never been studied either by masters or men; and it is remarkable that this branch of the pruner's art should have been brought to perfection by the untaught, unlettered, Kentish peasant—without books—without master, save experience—without mistress, save Nature herself! It is curious, too, that this art has been engrossed by the labourers in the central parts of the county, and without it being practised in other parts of the kingdom. All that has been written and published on this subject is but of little value, as more information may be gained in a visit of one hour to the fields round Maidstone, than can be gleaned from books in an age.

The principle of the Maidstone pruners appears to be this:—to check and controul the natural growth, and thereby bring forth the fruit-bearing principle in greater force and energy. After training the tree in a dwarfed form, they allow it to expend its strength in no other way than in the production of flowers and fruit. The filbert is naturally only a shrub or small tree, and the cultivator, makes it still less for his convenience in pruning and in gathering the fruit. That style of pruning, which is found the best for the currant, is also the best for the filbert.

The young plants chosen by the Maidstone growers are such as have been raised from layers, and which have been lined or bedded out in the nursery for two or three years. The plants should have one strong upright shoot, of not less than three feet in height, this being necessary in order to the future form of the head: this, early in the spring, after the trees have been put out in their final stations, is cut down to about eighteen inches from the ground. This height will admit of a clear stem of twelve inches below, and which part must at first, and ever afterwards, be kept free from shoots, as well as suckers from the roots. This deprivation of shoots and suckers, will cause the buds left at the top to shoot with greater vigour. If eight strong shoots be produced in the first summer, they must be carefully preserved, as that number is required to form the head; but if less than this number come forth, then two or three of the strongest, (or the whole if necessary,) must be shortened back to half their length at the



next pruning, in order to obtain the requisite number.

The full number of branches being obtained, if not in the first, certainly after the second pruning, they are carefully preserved, and trained outwards and upwards; at first nearly horizontal but curving gradually upwards. The easiest mode of doing this is by using a hoop of proper size placed within the shoots, and to which the latter are tied in star-like order, and at equal twelve-inch distances. Such a latterly curving position may be much assisted and caused by the pruner always cutting at an outside bud, which naturally grows first outwards and then upward, and continued to the height of six feet, but never higher; and the middle of the tree is, in the mean time, kept free from shoots and branches, so that a well-trained head becomes at last like a large bowl or basin.

The subsequent management of the trees, both while gaining the desired form, and after having gained it, consists in preserving all the short spurs produced on the branches, and cutting or shortening the small lateral shoots, which every year rise from the same. The management of these laterals is of great importance. If they exceed the length of six inches, they may be cut back to a few buds; but if less, they should be preserved entire, as their points are generally fruitful. The special object of the pruner is to have the branches thickly beset with fruitful spurs, and which are only reduced in length, when, after a few years' growth, they become too distant from the branch, when they are pruned back to a healthy spur at their base. If any part of a branch become accidentally naked, a strong shoot from the bottom may be led up, and managed so as to fill the vacancy.

When filbert trees are thus managed, and have arrived at their full volume in width and height, they may be kept in the same state for many years—say twenty or thirty—by the knife only, and with the requisite skill in using it.

The plantations of filberts in Kent are either in single rows, or occupy entire quarters of fields. The trees are put in at eight or ten feet distances, more or less, according to the quality of the soil. Six hundred and eighty plants are required for an acre, at eight feet distances each way: at ten feet distances, four hundred and thirty-five: and at twelve-foot distances, three hundred and two trees will be required.

The Kentish pruners are well aware of the use of the male catkins, rejoicing to see them plentiful, and carefully preserving them. From the greater or lesser number of the catkins, they can pretty certainly predict what share of crop will follow.

The practical example set us by the Maidstone pruners, confirms two very essential principles in the art of gardening, viz:—that by counteracting the natural tendencies of a plant, it may be dwarfed, and by thus dwarfing, making it more fruitful. The filbert tree is so constituted that it is ever extending itself by throwing up a multitude of suckers, which exhaust the bearing branches and render them sterile; but denying the plant its tendency to increase itself by suckers, promotes its energy to increase itself by seed.

Filberts intended for long keeping, should remain on the tree till they are thoroughly ripe, which is indicated by the rich brown colour of the nut. They should be laid on a dry floor for a few days, and afterwards stored in jars of dry sand, where they will keep sound for a great length of time.—*Rogers's Fruit Cultivator.*

## ON CULTIVATING WASTE LANDS; AND THE SUPERIOR ADVANTAGES OF SMALL FARMS.

(TO THE EDITOR OF THE CHELMSFORD CHRONICLE.)

SIR.—Your insertion in a recent number of your Journal, of the article to which I requested your attention, "On the Superior Advantages of Small Farms," has induced me to trouble you with a letter on a subject closely connected with my former communication. I assume that it is of great consequence, both to individuals and to the community, that landlords should be aware of the great gain they will derive from the whole of their waste lands being brought into cultivation. The objection hitherto alleged is the fear that such a course would multiply the population to a dangerous extent; but supposing this cultivation of the waste lands were to produce this effect, is it expedient that the present generation should be deprived of the means of subsistence from a fear that a future generation might be placed in the same circumstances? But it may be fairly disputed whether the population would be increased; for there are abundant proofs both in England and, especially, in Ireland, that poverty does not diminish population; on the contrary, the earliest marriages usually take place where there are the least means of supporting a family; and that the disinclination for imprudent marriages seems to be in proportion to the means of comfort possessed by the individuals. But suppose population to be increased, what have we to fear, till all the waste lands in England, Scotland, and Ireland, not now worth sixpence an acre, are divided into five acre farms; which would admit of our population being doubled without any fear of its being increased beyond the means of supply; this would also tend to reduce the poor rates more than any plan which has yet engaged the attention of the Legislature.

It requires no prophet to predict, that in England landlords must lower their rents, or divide their farms. In large farms the following causes tend to diminish the rent, by lessening the proceeds of the farmer.

1. The distance of the fields from the homestead occasions an amazing increase of labour in carting out manure, and bringing home produce.
2. An extensive farmer must perform the whole work of his farm by hired labourers.
3. The large farmer must live in a superior style.
4. As he employs a large capital, he must have a return for that capital, as well as be repaid his outgoings.

Now, as all these are reduced, so the proportion which they bear to the produce is charged to the benefit of the small farmer. As farms diminish in size, the labour of the occupier and his family becomes available, till it is reduced to the size that the occupier and his family can do all the work of the farm; and it will be found that the means of such a man to meet the rent, &c., may be depended on more than any other class of cultivators; because a man working for himself will do twice as much work in the same space of time that he can obtain for hire; while his wife and daughters can manage the dairy and feed the cattle. Why then should not landlords so divide their farms as to obtain the highest rents? Another disadvantage to the landlord resulting from large farms is the great expense to which they are frequently put by extensive dilapidations, if the tenant (as is frequently the case) has neglected the repairs; while small tenants under lease readily build and keep in repair their own houses, and sheds and

stables for the cattle and horses. If the farms were reduced in size, a robust peasantry, "their country's pride" would again form the strength and boast of Great Britain; and absentees would return to their estates, to occupy the houses of their ancestors, now ceded to their tenants.

With respect to the cultivation of waste lands, it has been doubted whether Parliament has a right to interfere, and to take (after making the owners compensation) possession of those lands which the proprietors have left in a state of nature. But the Legislature may throw down my house to widen a street; or make a road or a canal through my field or garden; or take a twentieth or a tenth, or any other proportion, of my income, in taxes, and no one dreams of disputing the right; the only question raised is as to the expediency. Why then should any land lay waste that the public good requires for the pauper population? Why should the country be impoverished by poor rates, when the poor might be enabled to provide for themselves? But though I assert the right of the Legislature to interfere, I do not imagine it would be often called to exercise that right. If the attention of the landlords were called to the subject, they would, I think, readily concur in promoting it; and the agricultural labourer thus having employment on his own land, would have no occasion to emigrate for a subsistence.

In my opinion there has been a greater outcry respecting the ruinous amount of the poor rates in agricultural districts than the fact has justified. Where the rates have increased during the existence of a long lease, there the tenants have been injured; but to a yearly tenant, rates, tithes, and taxes are all taken into the account in the amount of rent agreed to be paid for the land; and while competition exists the land will always let for its worth. By dividing the large farms, I repeat, the produce of the land would be increased, and the cost of production would be diminished, and by the annihilation of the poor rates, which would be nearly effected by the plan I recommend, the country would be relieved from an expense equal to two-thirds of the whole naval and military establishments; while the public revenue would be so increased by the general prosperity, that many of the present government taxes might be reduced or abolished.

A FARMER OF THE OLD SCHOOL.

*Tending Hundred, May 24.*

## AGRICULTURAL SOCIETIES, No. 3.

TO THE EDITOR OF THE YORKSHIRE GAZETTE.

SIR,—There are some agricultural societies which are entirely of a political character. I am not alluding to those bearing the titles of "Agricultural and Conservative," or "Agricultural and Liberal," but such as are supported by men of all political creeds, but having no bond of union,—no object beyond that of watching over the political interests of agriculture. When a steady and careful eye is kept by societies on the proceedings affecting their interests, in conjunction with the distributing of prizes, and the formation of libraries and journals, it is quite unexceptionable if formed on proper principles, but without this step they are generally inefficient or inoperative. When a mere political tie exists, there is nothing to arouse the dormant energies,—no exertants to activity, or co-operation exist, where the dull routine of employment consists in petitioning, meet-

ing, and dining; such societies are never calculated to be generally supported by the farmers, and, saving the influence and attraction of a few gentlemen, and landowners, by whom they are generally led, they are existing only in name,—are almost inefficient, and in some places wholly defunct. They tend to heighten and perpetuate that erroneous and destructive feeling amongst the tenant farmers, that the interests of landowners and occupiers are distinct and separate, and thus in some respects really weaken the agricultural body.

The only plan for giving real usefulness, permanency and stability to such societies is to incorporate them with the distributing of prizes and the dissemination of agricultural intelligence; for if some stimulant to exertion is not adopted, a few years will witness their dissolution.

Some, however, object to associations of this nature upon principle. They term them political unions, and to a certain extent they are; but they are no more likely to become dangerous to the interests of any portion of the community than they are to destroy the efficacy of tillage, or disarrange the rotation of crops. Political unions are only to be deprecated when they are intended—or when they attempt to overawe the deliberations of the legislature or interfere with the public peace and security, or personal liberty or property.

The agriculturists, as a body, never will attempt to overawe the legislature,—it is not in their nature. Their wide diffusion,—their occupations,—their character, all forbid the remotest idea of the kind;—they never can become a really formidable body in the state, further than the influence of their property renders them legitimately powerful. Their loyal and patient character for many years, seems to be a warrant for their future good conduct, for, while the traders and manufacturers have been up in arms to demand any redress of grievances, fancied or real, the farmers have borne all manner of insults, scorn, and neglect, with all the patience and forbearance of patriots and christians. They doubtless, then, have a right to associate, and watch over their interests,—to petition,—to express their wants and feelings, and to claim the protection which is due to them as the main-spring of our wealth and prosperity, and the stability,—the source of national independence and security,—provided they do it in a manner peaceable and constitutional;—not the bullying of numbers in arms,—not threatening rebellion,—blood and fire,—but to ask for as much redress as the legislature can afford, consistent with public credit.

With respect to the organization of these societies, it is necessary that they should have a calm, influential, and respected leader,—secretaries of talent and standing, and an active, working committee of farmers. The expenses of the society should be maintained by voluntary contributions, and the landowners are the persons who should be expected to defray the pecuniary expenses of the society, considering that if the labouring farmers give their influence it is as much as they can expect. If a certain subscription is a test of membership, it will both act in an exclusive manner, and damp the exertions of the society, by demanding payments for which they see no adequate return. There is no security in a money payment,—such an influx of free traders might be the result as to nullify the object of the society, and thus produce an evil it was intended to remedy. I think this is best obviated, and unity of purpose secured, by having a pledge for every person to sign on be-

coming a member;—first expressive of a conviction of the importance of agriculture,—the necessity of a fair protection from the foreign untaxed competition,—of readiness to co-operate with and aid all plans, introduced by whomsoever they may, which are really calculated to relieve or improve the agricultural interest, and of abstaining from all party political topics and discussions. Without this there is no certainty of any unanimity, (the soul of all moral force,) either amongst the individual members, or the various societies.

The central society is a most desirable institution, and provided its proceedings are moderate, firm, and well arranged, it will form such a nucleus to the agricultural body as will give it its due preponderance in the eyes of the country, and all the societies should unite with it, and express their opinions on the various interesting topics under discussion. Among other salutary recommendations of that society, I am glad that the adoption of the moderate size farm system is one, which although it has called down the ire of some interested persons will be duly appreciated by the farmers, whose eyes are more and more open every day, to the destructive and horrible effects of the farm monopoly. In conclusion, I would recommend most strongly, the attention of the central committee to the diffusion of agricultural information, in a very cheap form, and suited to the capacities of farmers, for which their extensive connexion with practical men, and local societies give them extraordinary facilities. W. E. N.

#### NATURAL HISTORY OF THE CHEESE MITE, OR JUMPER.

A small white fleshy grub of an elongated form, often found in decayed cheese, and which is the larva of a pretty two-winged fly, known by the systematic name of *Piophilæ casei*. Of this insect the immortal Swammerdam has left us an interesting account; and though to unthinking persons it may appear to be a frivolous subject of inquiry, we find the illustrious philosopher affirming "that the limbs and other parts of this worm are so uncommon and elegant, and contrived with so much art and design, that it is impossible not to acknowledge them the work of infinite power and wisdom, to which nothing is hid, nothing impossible." It has been a common error that these insects were bred spontaneously from the cheese, and epicures accordingly do not hesitate to eat them with great gout, thinking them formed from the very best of the cheese, whereas they are produced from eggs deposited therein by the parent fly. These larva are long, cylindrical, and composed of twelve rings, the first of which is furnished with two small bent hooks of a black colour, which serve not only as teeth, but for feet also, the insect having no other organs employed as legs. The terminal segment of the body is covered with a variety of prominent tubercles and little cavities like wrinkles, of which we will presently see the use. When this larva prepares to leap, it first erects itself on its anus, in doing which it is greatly assisted by the prominent tubercles of the terminal ring, which enable it to maintain an equilibrium. It then bends itself into a circle, and having brought the head towards the tail, it stretches out the two hooks of the mouth, fixing them into the two cavities at the extremity of the body. It then contracts the body from a circular

to an oblong figure, the contraction extending in a manner to every part of the body. It now suddenly, and with great violence lets go its hold, and the elastic force of the body returning to its natural position, produces a leap to a considerable height and distance, at least twenty-four times greater than the length of its own body. Here we cannot but admire the powers given by nature to different creatures, and their limitations, to answer different purposes, and not for mischief to mankind. If, for instance, a power of motion, proportionally equal to that possessed by this insect, had been given to the serpent tribes, how much more terrible would they not have been rendered, than with their present capabilities? A viper would throw itself nearly a hundred feet upon the traveller, and the rattle-snake several hundred.

Swammerdam, after giving a minute account of the external and internal anatomy of this creature, observes, "now let the sharpest geniuses, and men of the greatest penetration and learning, judge if a creature, on the fabric of which there plainly appears so much art, order, contrivance, and wisdom, nay, in which is seen the hand itself of the omnipotent God, could possibly be the production of chance or rottenness? The female fly is provided at the extremity of the body with a very fine retractile borer or ovipositer, wherewith she pierces the cheese and at the same time deposits her eggs in the wound thus made. Shortly afterwards the grubs are hatched, and feeding upon the cheese cause it to decay: the fine powder which we perceive, and which is so highly prized by the gourmand, being nothing else but the excrement of these grubs, which, when they have attained their full size, desert the cheese, and in three or four days they lose all motion, grow stiff, become hard, and contract their bodies into an oval mass not more than half their previous length, within which the real pupa is inclosed; this insect undergoing the coarctate kind of metamorphosis, like the majority of two-winged insects. After remaining some time in this state, the chrysalis becomes of a black colour, and the enclosed nymph breaks that part of the outer covering which defends its head into two parts, and at the same time throws off from every part of the body a thin and slight membrane which it leaves within the old case. At first the wings are scarcely perceivable, the insect, however, runs abroad very quickly, and shortly afterwards the wings are by degrees extended into full length, when the insect is fitted for pursuing its duties, which almost entirely consist in the reproduction of the species. The fly is about the size of the grub, of a shining blackish green colour, the wings transparent and shining, and the legs varied with ochreous and black.—*British Cyclopaedia*.

EFFECT OF WATER ON CAST-IRON.—Some large brass and cast-iron guns, which went down with the Royal George in 1782, are now lying in the Tower. The brass ones are little affected by their long immersion in the sea, but those of cast-iron are changed throughout their whole substance. They resemble plumbago or pencil-lead, and, like it, may be easily cut with a knife.—Cast-iron pipes attached to a pumping-apparatus, in a mine 140 fathoms deep, in the north of England, have been so softened in five years, as scarcely to hold together on removal.

## ENGLISH TITHE BILL.

TO THE EDITOR OF THE TIMES.

SIR,—I beg leave to offer through your paper a mode by which the commutation of tithes for a money payment may very easily be effected, and has the recommendation of being founded on the acknowledged principle of the quantities of land generally considered as a compensation in lieu of tithe under almost every enclosure act, where tithe is commuted for land—namely, one-fifth of arable land and one-ninth of pasture and other kinds of land; but instead of land, to give a money payment calculated at an equivalent annual payment for such quantities of land by substituting one-fourth of the amount (but not as part) of the rent paid for arable land, and one-eighth of the amount of the rent paid for the pasture or other land, to be paid by the tenant or cultivator.

The present bill (I allude only to the English bill,) proposes to give a rent-charge, to which I think there is the greatest objection. In the first place, a rent-charge is not in the nature or character of tithe; and next, instead of being an alleviation of the burden of tithe upon land, and the operation of it against improvement of cultivation and agriculture, and improvement of stock, I consider it will be in the end a more onerous and objectionable charge.

As a permanent and fixed charge upon the land of the value of a certain given number of bushels of corn, it will not alter with, or make allowance for, the state of culture or quantity of produce; or allow for land being thrown out of culture, or bad husbandry or bad seasons, and will, under circumstances of very common occurrence, press so heavily on the occupier or cultivator, that finally its onerous nature will be such as to defeat the object.

On the objectionable nature of a rent-charge, I beg leave to observe, that the effect and object of a rent-charge is to give a hold on the land, and that beyond the period that the person from whom the tithe is due holds the land, and thus in case of arrears throwing the burden on the succeeding tenant or cultivator. It is fair and reasonable that the tenant or cultivator shall be answerable for his own arrears of tithe, or money payment in lieu; and whilst he occupies the land his property and interest is in that land, and his estate shall be liable to his debt. But it is not reasonable that his successor shall be so liable for him; or that land should be liable for a prior tenant's arrears, or debt, beyond his occupancy; or that the land should lie uncultivated rather than pay his debt; or that the proprietor of the land should be compelled to sell his land for the debts of his tenant: and one of these cases must happen in arrears of so heavy a rent-charge as tithe would be.

As if aware of the objectionable nature of a rent-charge, it is proposed by the bill that more than two years' arrears shall not be recoverable; but this, I apprehend, would be quite enough to defeat husbandry, or the cultivation of the soil: as with two years' arrears left by an outgoing tenant, and the accruing payment of a third year's tithe, few persons would be found to venture on cultivating the land or to stock it so encumbered. Much more may be urged as against the tithe commutation being in the nature of a rent-charge, but enough is shown to exhibit that it is unreasonable, as well as the very prejudicial and objectionable nature of such a mode.

I consider that in substituting a money payment in lieu of tithe it is not meant by any blind or device to give a greater advantage to the tithe owner, and impose a charge that shall be more oppressive to the occupier or prejudicial to cultivation of the land; but that the real intention is to give as fair an equivalent as practicable, and to substitute a reasonable consideration for tithe, where that would and does operate as an unreasonable charge upon land, as in cases of great outlay, and disbursement of capital in high states of agriculture, and rearing of fine stock, or in cases of bringing poor or bad land, or unreclaimed land, into a good state of cultivation; and further, to give a more easy mode of obtaining payment to the titheowner, and a less objectionable mode of collecting his dues than in the form of taking tithe in kind.

I believe it to be the sentiment of the clergy generally, and who, with the establishment are the objects of chief consideration in the proposed commutation, that they wish no undue advantage, but a fair and reasonable equivalent for their tithe, subject to the vicissitudes of the products from the land.

These premises admitted, a payment that shall be modelled as near the nature of tithe will be that which shall follow the nature of the produce of the land, and make all allowances for soil, mode of cultivation, and kind of produce; and which a payment calculated by a proportion of amount of rent (but not as part of it,) because governed by the different kinds of produce and cultivation, obviously will effect, and is therefore the mode proposed of regulating the tithe payment.

The rent, therefore, under this view, apparently affords a very ready and appropriate means of settling the amount of tithe payment. Where rents were fair or admitted as such, both by the titheowner and farmer, it might save much time, trouble, and expense in valuation; but it may be necessary to have recourse to a survey, and therefore to provide for it; and where a rent is not considered to be the fair amount, either at too much or too little, or even without reference to rent paid, the value of a rent may be settled by a survey according to the state and condition of the land, the nature of cultivation, as to being arable, pasture, or other quality. The survey to be made by a surveyor for the cultivator, and a surveyor named by the titheowner, and an umpire, at the expense of the parties; and this should be made compulsory, with power to the titheowner to name his own man, if the cultivator would not, who should proceed, and whose decision should be binding; who shall then estimate the quantity of arable and pasture, and other land, and apportion the rent for each kind, and the payment in lieu of tithe would be one-fourth of that apportioned for the arable, and one-eighth of that apportioned for the pasture, &c. The proportions of arable and pasture, and other land, and the proportion of rent for each, shall remain as long as parties agree, or who may agree to alterations as required from time to time; but if they cannot agree, or if they see reason to have a new survey, then surveyors to be appointed as before. As a general rule, the tithe payment always to be considered first according to the actual rent paid, but if disputed, then as surveyors shall fix, and remain till parties shall object, and then to be settled as before provided, and so on from time to time. In cases where the landlord occupied his own land, this is provided for by a survey to fix the rent, should not the titheowner and landlord be able to agree

between themselves in the amount—the tithe to be recoverable in that case of the landlord as rent would be, but no arrear to extend to the land beyond the landlord's occupancy.

It appears to me that the fair method would be, that the tithewowner, as to right and title, should be left precisely as he is in all respects, except that he should be entitled to the substitute of the money payment at certain regulated periods quarterly, instead of taking the produce in kind, unless for arrears; for security of which he should have powers of distress as against the occupier; but for arrears incurred by the occupier only, against whom (ceasing to have an interest in the land) his arrears should remain a debt; and the tithewowner should have a precedence in the claim for his money payment, and for arrears, as a debt of tithe over rent, and all other debts not settled.

I will add, that by the mode proposed in my observations all the machinery of the present bill would be avoided, and an act little more than so much of an enclosure act, that provides for the commutation of tithe for land, substituting a money payment in place of the latter, would accomplish the object. AMICUS CLERICORUM.

June 2.

**BREAD.**—Although the fermentation of bread is attended with considerable advantages, yet it involves an extra degree of care, as to the bread being very thoroughly baked; and it renders it almost necessary that it be kept for a day or two before it is eaten. If not thoroughly baked, not only does part of it remain in the state of dough, viscid and tenacious, but ill suited to the powers of the stomach—a substance in fact that will disagree with almost any stomach, however strong, as it has not completely got rid of its fermenting ingredients, and the process will probably be continued in the stomach, to the obvious disturbance of its functions. The same thing is to a smaller extent, the case with new bread. The crust and the part of the bread next to it are much more easily digested than the inner part of the loaf; because from the former the products of fermentation have been the most completely expelled. Burnt bread is, however, neither more nor less than charcoal, and is deprived of all its power of affording nourishment to the system.—We have, then, several good reasons for saying to our readers, let your bread be baked in small loaves. One of these reasons is, that such bread is more entirely freed from the products of fermentation: they must escape much more completely from a small loaf than from a larger one. There is, in the second place, less necessity for putting the bread into a very hot oven, or for continuing it in the oven so long as to deprive the outer part of its nutritious particles. Such bread is sweeter to the taste than bread made in large loaves, because it is more entirely freed from the products of fermentation; and for the same reason it is more digestible. Looking upon this matter in a pecuniary point of view, we would maintain that what we are advising is worthy of attention on the score of economy. We would contend, that from any given number of pounds of flour, baked in small loaves, a larger quantity of nourishing matter will be obtained than if it be baked in large loaves; while the bread will be both more palatable and more wholesome.—*Magazine of Health for May.*

**OLD TREES.**—Mr. Jesse, in a letter to the *Gentleman's Magazine*, says, "that there are yew trees in England as old or older than the introduction of Christianity in our island, no doubt can exist; the oak is probably of an age little inferior; and the Tortworth chesnut, if it were, as is believed, an old tree, in the time of King John, may be approaching to a similar date."

## CULTURE OF THE COMMON APPLE.

The successful culture of apple trees depends very much on the suitability of the ground they are planted in. The size and flavour of the fruit, the general health and duration of trees, are most commonly the result of good or bad soil. Climate and situation also affect both trees and fruit; but not in the degree in which the same are affected by the qualities predominant in the land. Of all the different descriptions of soil to be met with in these kingdoms, that of a soft hazel loam, containing a small portion of sand, seems to be the most congenial to the apple generally. In such soil the tree is seen to flourish longest, is most productive, and remains freest from disease or attack of insects. A great depth is now requisite; eighteen or twenty inches being quite enough, provided it be on a dry subsoil of chalk or loose rock. If the bottom be wet, the trees should be planted high, and every means taken to drain the ground. A wet bottom of gravelly clay should be avoided if possible—no kind of apple thriving long if the roots once enter such a cold substratum.

Deep rich soils in sheltered situations are not the most proper for the apple, though such have been most erroneously recommended by writers who ought to have known better. For it is often seen that apple trees succeed in any kind of loam, though it be no more than one foot in depth, so as the bottom is sound and dry; they prosper because the roots take an extensive horizontal range; the young wood is always of a more moderate growth, and better ripened than where the roots strike deep into the ground.

Although local circumstances often controul the wishes of the planter, compelling him to fix on a site where the soil may not be exactly like what is recommended above; he must, in this case, endeavour to make the soil by trenching, draining, and by addition of the qualities wanting, and bring it as near to the standard as possible.

The situation of an orchard should neither be in the bottom of a narrow valley, nor on the top of a hill: in the first, the bearing wood is never so well ripened, the buds are often too early excited in the spring, and there frosts are always more intensely felt; in the second, fruit-bearing trees are always too much exposed to winds. The most desirable site is the side of a hill which slopes gently to the south or south-east. If higher ground or a belt of forest trees bound it on the north, it is an advantage, as yielding shelter often necessary to break the cutting winds of March and April. A western aspect is not to be preferred, because of the violent gales often experienced from that quarter; more especially during the month of March, when the buds are swelling, and in September, when many of the trees are laden with fruit. If, however, a western slope be the only choice, (other circumstances of the soil, &c. being favourable,) the planter has only to take care that the fruit trees be protected by screens of forest trees on the exposed points. This may be done, in a great measure, by the fruit trees themselves, that is, by planting the hardiest kinds, and tallest growers, on the north or windward sides; and placing the more delicate and lower growers towards the south.

Apple trees are liable to disease, and are also the prey of insects. Canker is the most prevalent disease; and appears to be caused by impure qualities taken in by the root from an ungenial subsoil. This is a conclusion come to from experience; because in low damp situations, where

the subsoil is strong gravelly clay, there the trees are mostly cankered; while the same kinds, planted on a light loam, having a dry bottom of rock or chalk, remain perfectly free from disease. We cannot exactly say how this happens, or describe what the deleterious qualities are, which derange and destroy the healthy bark and wood of a tree; but knowing what is above stated to be a fact, all we can do to prevent it, is, to avoid placing trees in such situations, or if our land be of that unfavourable kind, endeavouring to improve it by draining, or by any means that will prevent the roots descending into the noxious subsoil.

Insects hurtful to the apple tree are the *American coccus*, or woolly aphid. This is too well known to need further description. To kill those that are visible, and stop the young from infesting the whole tree, make a wash of soft soap and warm soft water, worked together till of the consistence of thin paint. This must be laid on the stem and branches with painters' brushes of various sizes, and pressed into every chink or opening of the bark where the insects hide and breed. The action of the brush crushes the old ones to death, and the clammy nature of the wash prevents all movement of either old or young. One application will not be enough to extirpate them, because many of the young are safe, and lie hidden under blisters of the bark, which, unless first paired off with a knife, neither brush nor wash can reach. But if this wash be applied hot, and as often as insects appear, a tree, or any number of trees, may be cleared of them in time.

**CATERPILLARS.**—Of these there are many different kinds, which prey either on the buds, leaves, flowers, or fruit of the apple tree. They are mostly the larvæ of moths, the eggs of which are laid in the crevices of the bark or round the buds, in the autumn or spring, and on the approach of warm weather are hatched, eat their way into the buds, and often devour both leaves and flowers. There is no way of keeping trees free from these winged insects, unless we could wash or sprinkle the whole tree in the autumn, with some liquid which would be offensive to the parent insect. Fumigating the orchard with heaps of burning haulm or straw sprinkled with sulphur, in the autumn, is said to taint the trees, and so drives the female insects from nesting on them. So effectual is this expedient deemed in Normandy, that it is never omitted by the orchardists there.

Parasite plants affecting apple trees, are the rust, mildew, misletoe, lichen, moss, &c. The three last are got rid of by any cutting or scraping tool. Rust and mildew are both funguses, which are easily killed by strong soap-suds repeatedly applied to the parts affected, or by sprinkling when wet with flour of brimstone alone or mixed in soap-suds.—*Rogers's Fruit Cultivator.*

**A BOON TO THE AGRICULTURISTS.**—There were reported at the Custom-house, London, on the 9th of April last, by the ship Commercial Packet, J. Hart, from Rotterdam, 500 cases of Geneva, consigned to order.

On the 11th of April last, by the London Merchant, Captain Stranach, from Rotterdam,

100 cases of Geneva, consigned to order.	
100	Ruck, Son, and Co.
170	G. Trimby.

These cases contain 1 dozen bottles, in quantity 2½ gallons, which is sold (in bond,) including bottles, package, &c (the spirit being at proof,) for 8s 6d.

Others contain 15 bottles, in quantity 4½ gallons, and are sold in like manner for 13s.

It is also imported in casks, and sold at 2s 2d per gallon, in bond.

The official returns show that many thousand gallons, of the above description, are imported weekly.

The Warehousing Act, 3d and 4th Will IV, cap 57, allows this article to be tasted, sampled, sold, and re-exported to our colonies, &c, free of duty.

By referring to the Export Custom-house List it will there appear that thousands of gallons are weekly exported, but more particularly to Australia and the Canadas,

From the increasing demand for this article, the result has been that several British capitalists have been induced to invest in distilleries in Holland, in order to manufacture this gin for the purpose of supplying our colonies, &c.

If the Government would allow the exportation of British spirits free of the Excise duty of 7s 6d per gallon, which it is now burdened with, it would enable us to compete with the foreigner, and thereby increase the demand for British corn and labour.

## LITERATURE.

### FLORIGRAPHIA BRITANNICA;

BY R. DEAKIN, F. R. C. S. E., AND ROBT. MARNOCK.

Groombridge, Paternoster-row.

This work, which appears monthly, has now arrived at the twelfth number, and if it do not meet with an extensive circulation amongst florists, gardeners, and the lovers of Botany, it must arise from not being sufficiently well known. It affords an easy means of acquiring a knowledge of the qualities of the British grasses, whilst the plates render the eye familiar with their appearance. The following is a description of "*Holy Grass*," which was first discovered in a valley called *Kella*, in Angushire, Scotland:—

"This species like all others of the genus has the peculiar smell of new mown hay, similar to *Anthoxanthum odoratum*, but in a much greater degree, so much so, that according to Dr. Hooker, in Iceland, it is so plentiful as to be used by the people to scent their apartments and clothes; and it is said to be esteemed in Sweden for its narcotic effects. The produce of this grass in Spring is very small and of a very tender nature; these, together with its strong spreading underground stems, render it a grass of no agricultural merit, a circumstance which is to be regretted, as it contains a greater proportion of nutritive matter than many of the early grasses."

### THE FLORICULTURAL MAGAZINE;

BY R. MARNOCK.

Simpkin and Marshall, London.

The first monthly number of this publication appeared on the 1st of June, and is one which we feel convinced will find favour with all amateur floriculturists. The information contained in this work is practically useful, and the notices of new plants peculiarly interesting. We subjoin the monthly operations for June in the flower-garden:—

"**FLOWER GARDEN.**—Sow annuals to bloom late in autumn; and, during cloudy weather, transplant into the flower borders those sown in March and April. Plant cuttings of pinks, double rockets, sweetwilliams, and carnations.—(See page 3.) Divide and repot auriculas, and remove them to a shady situation. Transplant and repot polyanthuses, Chinese primroses, holly-

hocks, sweetwilliams, lynchnesses, pinks, pæonies. Tender annuals, grown in pots, should be repotted and kept in a stove or greenhouse. Towards the end of the month, when the foliage of anemones, tulips, ranunculuses, and other bulbous-rooted plants, have decayed, they must be taken up, dried slowly, and afterwards placed in a dry, cool, airy situation, till the planting season returns. Pansies, and all kinds of herbaceous plants, may now be increased by planting slips in moist, shady situations, in a north-east border, to receive the morning sun. Complete the planting of dahlias, bud roses, &c. Mowing, weeding, tying up plants—(See *Notice of Metallic Wire*, page 17)—and attention to the usual routine conducive to order and neatness, must ever be kept in view.”

### THE FARMER'S HARVEST COMPANION, OR AGRICULTURAL READY RECKONER;

Baldwin and Cradock, London.

The best proof of the excellence of this work will be found in the fact, that it has undergone *eight impressions*. In addition we shall only give the statement of a practical farmer:—

“I have a good parcel of land, and it has been the practice on my farm to pay fourpence an acre for the measuring into carts at the setting-out time, half of which was paid by the labourer. Now, with this book in my hand, a rod measure, or a chain, (which I prefer for plain land), and a boy, I can in the course of an hour or two, when at leisure, and the weather permits, mark out the ground without calling in the land measurer schoolmaster to my assistance, and to the greater satisfaction of the workmen.”

## THE SHEEP.

HISTORY OF THE SHEEP, CONTINUED FROM PAGE 38.

(From the *Dumfries Herald*.)

Sparman, in his Account of South Africa, observes, that the leanest sheep are always selected for slaughter on account of the amazing fatness of the tail.

Mr. Hemmy, the Lieutenant-Governor of the Cape, informed Captain Cook, when he put in for repairs during his last voyage, that he had endeavoured to introduce European sheep into the colony, but had failed through the obstinacy of the country people, who thought the superiority of the wool would not be a recompence for the deficiency of the tail.

Boethius, the Roman poet and Platonic philosopher, (A. D. 524,) mentions a breed of sheep in the Isle of Hirta, (west of Uist, and north-west of Havsker), larger than the biggest he-goat, with *tails hanging almost to the ground, and horns as thick as those of an ox*, in these respects agreeing perfectly with the African animal, and giving rise to curious speculations as to how they reached so insignificant a place. Perhaps the Romans, who always left a conquered country better than they found it, were instrumental in the transference; but of this we can determine nothing. A benefit has been conferred, it matters not by whom, and Hirta remains, even at this time, famous for its live stock.—(See *Aikman's Translation of the History of Scotland*, by George Buchanan.)

Burchell remarks, that the principal property of the boors of the Roggeveld consists in sheep; 2500, exclusive of lambs, being reckoned a small fortune, while a boor with 5000 cannot be called affluent. He once, in fact, met a person who was the happy

possessor of 30,000, certainly a most eligible investment for a fortune-hunting woman. At a village, to which was attached the feature-distorting name of Graaffreyneet, he conversed with a family, not a large one, which, being fed on mutton at every meal, required for the due holding together of the animal and spiritual, no less a proportion than two sheep daily: after that the Esquimaux may surely be allowed to enjoy in peace the exercise of their fastidious appetites.

The broad-tailed sheep affords in Thibet a fleece which is fine, long, and beautiful, and goes to form the shawls to which the ladies of all nations are so exceedingly partial.

The Cape sheep are said to have been introduced into North America, where they were regarded as extremely valuable, on account of the wool and flesh; but Stuart, in his late publication after a three years' residence in that country, thinks the Americans care very little about sheep, and does not so much as mention the African animal. “Sheep are not so much attended to as they should be in this country, where the dryness of the weather preserves them from diseases to which they are subject in Britain.”—“The marinos, and crosses with the marino, are those generally seen; but little care is paid to their being well fed before being killed and brought to market. The mutton is, of course, inferior in quality, and the people led to entertain prejudices against it; even the slaves in the south are said to object to being fed on sheep's meat.”

From the last part of this extract we are partly enabled to understand the reasons why mutton bears so exceedingly small a price in that quarter, and why, therefore, it constantly figures as a bait in the magnificent trap which is set every year to ensnare the unwary and the discontented.

Bonnycastle, in his work on Spanish America, remarks, that sheep are found in a state of nature in the northern part of New Spain, “having multiplied to an extraordinary degree in the wide spread plains and Savannahs;” but he very inconsiderately leaves us to guess the variety of the animal to which he alludes,—a mode of acquiring information we decline, or obvious reasons, resorting to.

The sheep of Persia, Tartary, and China, is distinguished from all others, by the tail forming a *double globe* of fat; the north of Europe and north of Asia is overrun by a breed in which the tail is wanting, while that of southern Russia, India, and Guinea, stands pre-eminent, from the elongation of the tail, and in respect to that of the two last named places, also of the legs.

Among these the only one which appears to have lately attracted much attention is the Puruk of Ladusk, in the Himalaya mountains, and which, from the description given of it by Mr. Moorecraft, in the transactions of the Asiatic Society, appears to be, in some respects, a most remarkable animal.

It is a branch of the small breed we have shortly noticed as inhabiting the north of Asia, but as the qualities assigned to it are such as may raise doubts in the minds of practical men, we cannot, we think, do better than permit Mr. Moorecraft to describe it in his own words—“The Puruk sheep of Ladusk, when at full growth, is scarcely as large as a south down lamb six months old; yet, in fineness and weight of fleece, and in flavour of mutton, added to its peculiarities of feeding and constitution, it yields not in merit to any race hitherto described. It gives two lambs in twelve months, and is twice shorn within that space. The clip may afford, in the annual aggregate, 1½lbs.; and the first yield is fine enough for tolerably good shawls. The British

flock-master would be delighted with the fineness of the bone, the spread of the carcase, the hardness of its constitution, and its aptness to fatten. The Puruk sheep, if permitted, thrusts its head into the cooking pot, picks up crumbs, is eager to drink the remains of a cup of broth, and examine the hand of its master for barley, flour, or a cleanly picked bone, which it disdains not to nibble; a leaf of lettuce, a peeling of turnip, the skin of the apricot, give a luxury; and the industry is indefatigable with which this animal detects and appropriates substances so minute and uninviting, as would be unseen and neglected by ordinary sheep; perhaps the dog of the cottager is not so completely domesticated as it is. I have been minutely tedious upon their acquired habits of feeding, as introductory to the conclusion, that there exists not a cottager in Britain who might not keep three of those sheep with more ease than he now keeps a cur dog; nor a little farmer who might not maintain a flock of fifteen or twenty without appropriating half an acre exclusively to their use: they would derive support from that produce which now either totally runs to waste, or goes to the dunghill." He goes on to state that he has procured a flock which, in the event of his falling, will, he hopes, be sent to Britain; but so far as we are aware, nothing has been heard of the matter since. With all due respect for the opinion of Mr. Moorecraft; we are led to believe that the introduction of such an animal would not be followed by the advantages he has been so sanguine in supposing, though no doubt correct in his statements, regarding the omnivorous propensities of the animal, as every farmer can testify from what he has seen of the lambs reared for amusement by children, yet he forgets the difference between a Tartar and a British population, and that small as is the product in that country, even when contrasted with the value of the feeding, it would be smaller still in this part of the world, where they would, from becoming speedily acclimated, bring forth and require clipping only once a-year.

Sheep are abundant in Persia, and, according to Sir John Malcolm, from the wealth of the wandering tribes who, however, pay no attention to the improvement of the breed.

Salt, while in Abyssinia, noticed a "small black species," and it is curious he should content himself with this, the very commencement of a description, though at that time labouring to gain us a knowledge of many animals which could only be viewed as zoological curiosities, and as such gain him the thanks of but a small portion of the community.

A notice of a breed between an Abyssinian ram and a French ewe made the tour of our newspapers in 1826; they were described as being extremely hardy and prolific, their fleece surpassing in brilliancy any that had ever appeared in Europe, while their beauty excited general admiration.

The fleeces of the sheep above Cairo are said to be very thick and long, and to have been used by the Egyptians for beds, as they were supposed to secure the sleeping owner from the stings of scorpions, which would not venture upon such a couch through a fear of being entangled in the wool.

The West India sheep are much esteemed in this country, to which they are sometimes brought by merchants ships, and after feeding a short time on our pastures are reckoned little inferior to venison.

The Icelandic sheep has straight upright ears, a small tail, and what is most to be remarked, no less sometimes than four or five horns. They are exceedingly fond of scurvy grass (*cochlearia*), on which they soon acquire fat, and are much valued by their owners on account of their milk, of which they yield

from two to six quarts a-day, most of it being made into butter. It has been affirmed, but with what degree of plausibility we cannot determine, that the ewes in the holmes round Kirkwall, in the island of Mainland, (one of the Orkneys,) frequently drop dead when frightened near lambing time.

Pennant, alluding to the extensive use of flannel in Wales, remarks that "Wales yields but a coarse wool, yet it is of more extensive use than the finest Segovian fleeces; for rich and poor, age and youth, health and infirmities, all confess the universal benefit of the flannel manufacture."

The time is now past that justified the remark of Crabbe,

"When flannel wreaths the *useless limbs* enfold."

As flannel is at present used by the strongest and healthiest individuals in the hottest climates, and with the most decided advantages, frightful bowel complaints having, as Sir George Ballingall remarks been frequently stopped in European regiments in India, by the men being supplied with flannel shirts. The poorest of the Welsh peasantry make use of flannel coverings, which are thrown aside during the period of active exertion, only to be instantly resumed when that period has ceased.

The Welsh sheep are reckoned the best for a mountain next the Cheviot and black-faced breed; their wool, in fact equals that of the former, while they have some of the requisites of a good feeder, such as clean heads, small bones, and thin erect ears, and are healthy, hardy, and active, but of small size, weighing from 7 lbs. to 15 lbs. per quarter.

It has been believed, from Britain having been partly peopled from Spain, that our sheep were originally Spanish; and as Giraldus Cambrensis (*Collectan. de Reb. Hibern.*) a work we have only been enabled to consult at second-hand,) affirms, that the Irish in his time were clothed in black garments, from the wool of their sheep being so coloured, some have supposed the sheep of that island were imported from Spain,—a supposition rendered probable by Southey telling us, in his letters from that country, that in the north of the Peninsula the animals are almost all of a black colour.

Borlase, in his *History of Cornwall*, ascribes the fatness of the sheep near the Land's End to their eating snails of the turbinated kind, along with the dewy food they were wont to obtain at day dawn. Snails have always been reckoned good and nutritious food; but we never, till now, imagined that our pet was so much of a gourmand as to vary its diet at the expense of so tiny a lover of good herbage.

We shall, before proceeding to the British breeds of the present day, furnish our readers with a few of the Acts which have been passed by Parliament in regard to sheep, only however, producing such as have a direct reference to the present division of our subject.

Though there are innumerable Acts relating to wool, yet there are comparatively few which allude to the animal that bears it; and these may in most instances be viewed merely as matters of curiosity. The earliest that has fallen under our notice is one passed by the eighth Parliament of James II., chapter 36, requiring that no cattle be sold to Englishmen in England but for ready gold and silver, under the pain of escheat betwixt the King and the warden.

By an Act of the seventh Parliament of James the Sixth, chapter 124, all Acts are ratified which have been made against the transporting of sheep or other cattle forth of the realm.

An Act of the twelfth Parliament of James the Sixth, chapter 149, forbids sheep to be transported to



England, or sold to Englishmen who transport the same.

In an act of the first Parliament of Charles the Second, session third, chapter 12, Anno 1663, for the encouragement of tillage and pasturage, it is declared, that barrelled flesh may be exported by sea free of custom, bullion, or other imposition for nineteen years; and that bestial (including, of course, sheep,) may be exported free of custom, &c. for the same term. During the reigns of Henry VII. Henry VIII. and Edward VI. an undue preference was given to grazing so much so, as to call for several Acts to put a stop to what, from mismanagement, was fast ruining the country, by driving the people from it. Henry VII. exempted Norwich from the penalties of the law on account of the decay of manufactures from the want of hands; and shortly after, the whole county of Norfolk obtained a like exemption with regard to some branches of the woollen manufacture. The practice of depopulating the country, by abandoning tillage and throwing the lands into pasturage, had run to so great an extent during the time of Henry VIII., that an enactment was made, whereby the King became entitled to half the rents of the land where any farm-houses were allowed to fall to decay; and the number of sheep in a flock was limited to two thousand. Hume conjectures, in his History of England, that unskilful husbandry was probably the cause why the proprietors found no profit in tillage,—thus leading a farmer to keep a flock sometimes of twenty-four thousand, as expressed in the statute, and increasing the price of mutton, which remarkable coincidence Parliament attributes to the commodity having gotten into few hands, though Hume ascribes it to the daily increase of money, thinking it almost impossible that such an article could be engrossed. At the commencement of the reign of Edward the Sixth, the people were still sadly deficient in a knowledge of agriculture,—a profession which, as Hume wisely remarks of all mechanical employments, requires the most reflection and experience. A great demand having arisen for wool, both at home and abroad, whole estates were laid waste by enclosures; while the tenants, regarded as a useless burthen, were expelled their habitations, and the cottagers deprived even of the commons on which they fed their cows:—no wonder there was a decay of the people. Perhaps Goldsmith had these times in view when he wrote—

“Princes and lords may flourish or may fade,  
A breath can make them as a breath has made;  
But a bold peasantry, their country's pride,  
When once destroyed can never be supplied.”

The grievance, in fact, was so great, that Sir Thomas More, alluding to it in his Utopia, observes, that a sheep had become in England a more ravenous animal than a lion or a wolf, and devoured whole villages, cities, and provinces.

From such doleful pictures we turn with renewed delight to the peaceful attributes of the benefactors of our commerce, and shall give, in as condensed an arrangement as possible, the conclusion of their history.

The breeds of our island, as they at present stand, may be divided, into two kinds—long-woolled and short-woolled; the former embracing the Teeswater, the Dishley or New Leicester, and the Devonshire nots; while the latter will include those of Dorset, Hereford, Sussex, Norfolk, and Cheviot.

The Lincolnshire has no horns, the face is white, the carcass long and thin, the legs thick, white, and rough, bones large, pelts thick, and the wool from 8 to 10 inches in length. The ewes weigh from 14

lbs. to 20 lbs. per quarter; and three-year-old wethers 20 lbs. to 30 lbs. The flax weighs from 8 lbs. to 14 lb., and covers a coarse-grained slow-feeding carcass, so slow, indeed, at feeding, that it cannot be fattened at an early age except upon rich land; but the breed is encouraged from the great weight of wool that is shorn from them every year, while it and its sub-varieties are extremely common in the English counties.

The wool of the Teeswater is not so long and heavy as that of the former; they stand upon higher and finer boned legs, which support a firmer and heavier carcass, much wider upon their backs and sides, and afford a fatter and finer-grained mutton; the two-year-old wethers weighing from 25 lbs. to 30 lbs. per quarter.—(See Cleghorn on Agriculture, in the seventh edition of the *Encyclopædia Britannica*.) These were originally bred from the same stock as the former, but have become different from attending to size rather than to wool. Marshall, in his work on Yorkshire, remarks, that they are not so compact nor so complete in their form as the Leicestershire sheep; nevertheless, the excellency of their flesh and fattening quality is not doubted, and their wool still remains of a superior quality. For the banks of the Tees, or any other rich fat land country, they may be singularly excellent. Rams of this breed have been employed of late in crossing ewes of the Leicester breed in Northumberland and Berwickshire, but with what success has not been determined.

The Dishley, or New Leicester, is distinguished from other long-woolled breeds by clean heads, straight broad flat backs, round bodies, small bones, thin pelts, and disposition to fatten at an early age; but more of this hereafter. The weight of three-year old ewes is from 18 lbs. to 26 lbs. per quarter, and of two-year-old wethers from 20 lbs. to 50 lbs. The wool averages from 6 lbs. to 8 lbs., and is thought by some to be inferior in quality to that of Cheviot sheep; but, from being fully fed at all seasons, they yield great quantities of it.—(*Practical Observations by John Little*.)

The fourth hornless variety of long-woolled sheep is the Devonshire nots. They have white faces and legs, the latter being short, and the bones large, while the necks are thick, the backs high, and the sides good. They approach in weight to the Leicester; but the wool is heavier and coarser. In this county are found the white-faced and horned variety, which are known as the Exmoor kind, from the place of their nativity. Though very delicate in bone, they are not good, having a narrow flat-sided carcass, while the weight of the quarters and fleece is a third short of the former variety.

All that we have here described are suited only for luxurious pastures; but the next, or short-woolled kinds, are nicely adapted by size and form for hilly countries and inferior fare, though not sufficiently hardy for mountainous and healthy districts.

The Dorsetshire sheep are horned and white-faced, with a long thin carcass, and high small white legs. Three-year-old wethers weigh from 16 lbs. to 20 lbs. a quarter; but the wool being fine and short, weighs only from 3 lbs. to 4 lbs. a fleece. It is, however, amply compensated for by the mutton, which is of superior quality. This breed has a peculiar property—that of lambing at any period of the year, often so early as September and October—and is on this account extremely valuable for supplying large towns with house lamb at Christmas.

The Wiltshire sheep are a weightier variety of the former, averaging from 20 lbs. to 25 lbs. per quarter. According to Mr. Culley, “The variations of the breed are spread through many of the southe

counties, as well as many in the west, viz., Gloucestershire, Worcestershire, Herefordshire, &c."

Herefordshire or Ryeland sheep have white legs and faces, and no horns, the wool growing close to the eyes. They are of a size suited to every market, weighing from 12 lbs. to 18 lbs. a quarter, with a tolerably well formed carcass and fine short wool, each fleece weighing from 1½ lb. to 2½ lbs.; they were called Ryeland sheep, from the land being thought capable of growing nothing but rye. Their figure is good; but the back is not so level, nor the ribs so well rounded, as in the most improved breeds. They fatten easily, and arrive soon at maturity, though reckoned inferior in these respects to the Cheviot variety.

The South Down, like the Ryeland, are, from the delicacy of their constitution, unadapted for bleak situations, but sufficiently hardy and active for a low country; their average weight is from 15 lbs. to 18 lbs. a quarter; that of the fleece, which is very short and fine, being from 2½ lbs. to 3 lbs. They are without horns, have grey faces and legs, a neck low set, and small, and a breast neither wide nor deep; their mutton is fine in the grain, and of an excellent flavour, having been brought to great perfection by Mr. Elman Glynd and other intelligent breeders. They are mostly found in Sussex on dry chalky downs, producing short fine herbage, and arrive early at maturity, in which respect they are equal to the Cheviot, though inferior to them in quantity of tallow.

Norfolk sheep are celebrated for a voracious appetite and unquiet disposition, and are good for nothing but folding, for which alone they are retained. They have long legs, a light lean carcass, a black face, and large spiral horns; weigh from 16 lbs. to 20 lbs. a quarter, and have large bones, though the fleece is fine, averaging from 1½ lbs. to 2 lbs.

The Cheviot sheep have no horns, a bare head, white face and legs, with a long jaw. The legs are clean, small boned, and covered with wool to the hough, but there is a sad want of depth at the breast, and of breadth both there and on the chin. A fat carcass weighs from 12 lbs. to 18 lbs. a quarter, and a medium fleece about 3 lbs. They vary occasionally, especially about the face, from an intermixture with their neighbours. These sheep are a capital mountain stock, provided the pasture resembles the hills around Cheviot, in containing a considerable proportion of green sward; indeed, the flocks which have been sent to the Highlands of Scotland have succeeded admirably, supplanting in many instances the black-faced kind.

The black-faced or heath variety are known by their large spiral horns, wild-looking eyes, black legs and faces, with short firm carcasses, covered by long coarse wool, which weighs from 3 lbs. to 4 lbs. When three years old they fatten well, giving excellent highly flavoured mutton, and weighing from 10 lbs. to 16 lbs. a quarter. They are the most valuable upland sheep in Britain, abounding in all the western counties of England and Scotland.

There are four limited races yet to be noticed, two of which will be deferred till our paper on Wool—the first is a kind peculiar to the rocky district at the head of the Duddon and Esk rivers, in Cumberland. They are termed *Herdwicks*, from having been for generations back farmed out to *herds*. They are hornless, having speckled legs and faces, with short wool, which weighs from 2 lbs. to 2½ lbs. a fleece, and reported as finer than that of the heath sheep.

The Dun-faced is supposed to have been brought to Scotland from Denmark or Norway at an early

period, and still exist in small flocks north of the Firth of the Forth. There are some varieties, but they may all be arranged under those of the mainland of Scotland, and those of the Hebrides and northern islands of Orkney and Zetland.

(To be continued.)

## DENVER (NORFOLK) SHEEP SHOW.

Messrs. Thomas and Joseph Brown held their annual show for selling and letting of tups on Thursday se'night, when a numerous company assembled—some of whom came from a great distance, and who were evidently both pleased and surprised at the perfection to which the intelligence and energy of the Messrs. Browns have carried their favourite Leicester breed of sheep; both in form and condition they were acknowledged to surpass the animals shown last year; but the best proof of their excellence was the fact, that a great proportion of the tups were let at prices sufficient to indemnify the owners, and yet quite within the means of all sheep farmers, to whom purity of blood, symmetry, constitution, and early aptitude to fatten are objects of attention; and what sheep farmer does not deem them such? We consider these gentlemen entitled to the thanks of the community, and worthy of all commendation, for the opportunity they have thus afforded their brother farmers of improving their breed of sheep, and at no exorbitant rate, of acquiring a stock of lambs, which both in wool and carcass, shall amply repay them all the cost and labour of rearing them. This praise is the more sincere on the part of the writer, because he happens to be a partisan of the Southdown, rather than the Leicester breed of Sheep; but it will be remembered that there is such a thing as combining the excellencies of the two, and by putting a Leicester tup to Down ewes, a most valuable animal, both as to wool and carcass, is the result. Now breeders of half-breeds, are not in general sufficiently awake to the necessity of attention to the quality of the tup. Any sheep, so he be but a Leicester, they think will do to cross with; there never was a greater fallacy. At least as much pains should be taken to procure a perfect sire in this case as any other, and why not? But we are dealing in truisms, when we ought to be going on with our story. After the sheep had been shown, seen, and handed by all the *cognoscenti* present, the party adjourned to a large tent, which had been erected in front of the house, and nearly forty sat down to a sumptuous dinner. Amongst whom were E. R. Pratt, J. W. Gooch, J. W. Powell, Esqrs., Messrs. R. and H. Childs, Littles, Waddell, Anderson, Paul, Mumford, Garnham, Hunter, Leete, Chester, Read, Bush, S. Taylor, Stanger, Ewen, Burrell, Cottingham, Whirry, &c. After a few of the usual preliminary toasts had been given from the chair by Mr. T. Brown—E. R. Pratt, Esq., rose, and expressed the very high gratification he felt as Mr. Brown's landlord, in being present at so large and respectable a meeting. It always gave him great pleasure to meet the yeomanry, and particularly on an occasion like the present, when his own estate and his own tenants furnished the means of improvement in a very important point of husbandry, sheep management. He himself was a Southdown breeder, but he not the less appreciated the labours of the Messrs. Browns, believing they were calculated to be of eminent service to their brother farmers. Entertaining these sentiments, he begged to propose the healths of their worthy hosts, and success to them, with three times three. (*Loud cheers.*) The presence of this venerable and highly respected individual, a true specimen of "the Old English Gentleman," added greatly to the interest of the meeting. After several other suitable toasts, the company again adjourned to the sheep pens, and the business of the day was concluded by those who had not already made their bargains—the party finally dispersing much gratified with the proceedings of the day.

## HORTICULTURE — COMMON CABBAGE, EARLY YORK CABBAGE, LONDON NEW YORK CABBAGE, SAVOY, BROCCOLI, AND EARLY WHITE WARWICK PEA.

By Mr. TOWERS, Author of the Domestic Gardener's Manual, &c. C. M. H. S.

(From the Quarterly Journal of Agriculture.)

The *Brassica*, or cabbage tribe, presents us with the most important crops of the season, I mean the period included between the 1st of June and the two succeeding months. It is proposed to select three of the numerous species, namely, 1st, Common round-headed or hearting *Cabbage*,—2d, The *Savoy*,—3d, *Broccoli*.

I. THE COMMON CULINARY CABBAGE, *Brassica oleracea*, of Decandolle, No. 4. *elliptica*, the early York, and particularly that fine improved variety, now called London *new York Cabbage*. All the members of the tribe belong to one family or genus, termed *Brassica*: they are found in the natural order *Crucifera*, the leading characters of which are four opposite petals, ranged in the order of a cross; there are four petals or calix-leaves, six stamens, two of which are rather shorter than the other four, and this latter circumstance gave rise to the name selected by Linnæus to designate the members of his 15th class *Tetradynamia*, a compound Greek word, which indicates the power or *supremacy of four* out of the six fertilizing organs. It may be of some importance to the farmer and cottager to be informed that, among all the plants of this class or natural order, not one perhaps is possessed of any really deleterious property. Among nearly one thousand species, as Dr. Lindley observes, "scattered over the face of the world, all are harmless, and many highly useful."

The varieties of the cabbage are numerous, but he *who possesses* the best early York, has that which combines most of the valuable qualities of that excellent vegetable—compactness of heart, firmness, sweet flavour, and convenient size and form; it is also hardy, of very ready culture, and occupies but little space. I do not recommend it merely as a *culinary* vegetable; it might, and I think should, be made to rotate with the crops of the farm. It is not my desire now to digress, but I hope on a future occasion to adduce facts which will go far to prove that every farm throughout the kingdom would be improved, and the agriculturist proportionably benefited, by a greatly enlarged rotation. The land has powers and capabilities to double its productive return: we southerners are much indebted to our northern brethren for the lessons of wisdom which their refined system of agriculture has already taught us, but these cultivators, skilful and persevering as they have effectually proved themselves to be, may still advance; and with this conviction before me, I hope I may not be deemed presuming, if, at the earliest opportunity, I venture to attempt to fulfil the intention which I have alluded to above, and for which I am collecting the requisite documents.

The *soil* for cabbage should be a sound mellow loam, of a quality usually termed *fat*, or unctuous, wherein the *silice*, which forms its chief constituent, is in a state of extremely minute division, and united to a greater proportion of argillaceous earth (*alumine*), than most common, gritty soils

are; but the chief desideratum of an unctuous loam is the impalpable state of the *silice*; for I have analyzed one of the finest loams I ever saw, without being able to detect in it more than five or six per cent. of clayey substances, and scarcely a grain of chalk. But the cabbage will do well in most soils, provided it be exposed to the full influence of light and air, and be not shaded or stifled by trees, shrubs, or buildings.

SEED.—This will retain its vegetative power for three or more years, but it is always better to employ that produced in the preceding season, or if two or three year old seed be used, it should be tried in heat, sown in a flower-pot: a serious loss of time may be occasioned by a failure of the seed-bed. An ounce of seed will suffice to sow forty square feet, if scattered broadcast, but less will be required, if sown in drills, six or seven inches asunder; and this method is always advantageous, because the Dutch or thrust-hoe can, at any time, be passed easily between the rows. If cabbage be cultivated in the *field*, it is calculated that half a pound of seed will afford more plants than will grow on an acre; and it is stated, in recommendation of the vegetable for the purposes of the farm, that if the cabbages be cut, freed from bad leaves, and carried to the cow-yard, "they are more beneficial than hay, given in any proportion, when only combined with straw."

"In the *fattening* of neat cattle, an acre of good cabbages may be nearly sufficient for three beasts of from forty to fifty stones each, which have been grazed in the pasture during the summer. A middle-sized bullock, in general, consumes about 100lb. in twelve hours."\* "Half an acre will be nearly sufficient for 100 sheep, when the crop is good: a sheep consumes nearly 10 or 12lb. in 12 hours.—(*Baxter's Agric.*) I have repeatedly tried cabbage in cow-feeding, and on every account recommend the substitution of *York cabbages* for the coarser and more bulky varieties.

In *garden culture*, we have to consider the object of the cultivator; if spring or early summer cabbage only be required, one sowing of a single long row or a small bed will suffice. In the southern or middle counties of England, it is usual to limit the period of sowing between the 6th and the 12th days of August; but in the north, I presume that the third or fourth week of July should be chosen. Experience has proved that seed sown early in July, will produce plants which are liable to run to seed in the following spring; while, on the contrary, the plants of late sowings rarely acquire strength sufficient to resist the rigours of the winter. *The soil for a seed-bed* ought to be lighter than that used during the future growth of the *plants*; it should be moved to the depth of a few inches, and made very fine: then, the line being strained tight, the first drill is to be cut by drawing the angle of a hoe in the direction of the line, with its edge resting against it. An inch or less in depth is sufficient; but, as all seeds rise better if they rest upon a true surface, and be closely

\* There must surely be some error in this statement, of an acre of cabbage being able to fatten nearly three beasts of from 40 to 50 stones each: 100lb. of cabbage in twelve hours, that is the average number of hours of day-light in each day, for twenty weeks from the end of October, will amount only to 6 tons 5 cwt. Now a middle-sized ox will, in that time, consume 30 tons of Swedish turnips. Do. 6 tons 5 cwt. of cabbage yield as much nutriment as 30 tons of Swedish turnip!—EDITOR.

embraced by the mould, it will be proper to level and compress the bottom of the little drill by patting it with the back of a wooden, round-headed rake, or by placing a long pole, like the handle of a rake, into it, so as to form a sort of groove. In this, the seeds are to be scattered as regularly as possible, after which it would be as well to dust them over regularly with a powder composed of two parts (say pounds) of powdered quick-lime, one part of coal-soot, and one sixteenth part (one ounce) of flour of sulphur. This mixture is inimical to insects, and does not injure the young plants. The groove is next to be filled up with fine earth, which is to be made firm and even, by pressing it down with the flat of the spade. In like manner, all the other drills may be made and finished. If the weather be showery, and the ground in a moist state, but still free and open to work, nothing more need be done. It sometimes happens, however,—as was the case to a very injurious extent throughout the summer of 1835,—that the soil is found dry even to dustiness. In that case, as it will not answer to let the critical period pass over, the intended bed should be watered copiously for three successive nights, till it become completely moist, and a mat or two must be thrown over it during the intervening days. Seeds sown in soil thus prepared, will vegetate very rapidly; for warmth and moisture are the prime actuating agents of vegetative life, as direct solar light is that of maturation. Waterings, or rather the ordinary sprinklings, so termed, will prove of no avail, if the seeds have been sown in arid soil, as was fatally proved last year. In hot sunshine, the mat ought to be used till the seeds vegetate. *The seedling plants* will be liable to the attacks of slugs and other enemies; to guard against which, they may be sprinkled with a little of the powder mentioned above; or the spaces of soil between the rows may be covered with dry saw-dust or chaff; but thick sowing is perhaps the most effectual means to secure a sufficient supply, and it is always prudent to practise it, because many seeds are inert; and it is better to displace the supernumeraries by timely thinning, than to have a paucity of plants, nine-tenths of which may perish by accidents. When the first true leaves appear, and acquire a little strength, much of the danger will be past, and the plants ought to be thinned out, so as to stand an inch asunder. Again, as they advance in growth, they ought to be reduced in number till double that space intervene between plant and plant.

**TRANSPLANTING.**—Some gardeners have attempted to obviate this operation; but the roots first produced are few in number, though strong, and of considerable length; the plants also acquire a tall and shankly growth; and above all, it is evident that, if cabbage plants be made to perfect their growth on the site where the seeds were sown, the allotted space must be very great, because they *must* be thinned out so as finally to stand one foot asunder at the least. Transplanting, therefore, should be practised, and that, too, as soon as the young plants have become three or four inches high, and begin to crowd each other. The operation effects two or three good objects. It causes the roots to produce a number of short fibres, or, as it is termed, to become “stocky;” it dwarfs the plants, and, while making them strong and compact, secures them to the soil; and it enables the grower to protect those left in the seed-bed (as some always should be) by coverings of mats thrown over arches, formed of

hoops or pliable rods, in the event of very severe weather.

In transplanting, let the bed or plot be a good firm loam, if possible, pretty well manured, thoroughly digged, and in a free, open situation. Select strong plants of nearly equal growth, and insert them in rows by means of a dibble or trowel, fixing each firmly in the soil, eighteen inches apart every way, if the variety be a free grower; but the small Yorks will do very well if the rows be that distance apart, the plants standing only twelve inches asunder in the lines or ranks. It is indispensable that the soil be brought closely to the roots, and made to press them firmly in every part; and should the weather be dry, much time will be gained by making the holes so deep as to receive the plant to the full length of the stem of each, and filling every hole brimful of soft water: then, by pressing the soil laterally and on every side with the tool, the roots will become puddled in, and secured at once. The period for the work must depend upon the growth in the seed-bed; and if the season be early, and the weather warm and showery, the transplanted cabbages may grow so rapidly as to require the check of a second removal, or at least to be raised up and reset; but in general, and under ordinary circumstances, it will be sufficient to leave them undisturbed, as then the crop will be ready for culture at a more early period of the spring. In the south, it is no uncommon circumstance to cut fine-hearted cabbages in April, and very good ones in May. In the north, the growth must be more tardy in most situations.

The *seed-bed* will require care and attention. I have said that some plants ought to have been left in it; and I urge the practice, because, in severe winters, the entire crop is sometimes cut off. The seedlings remaining ought, however, to be raised up; the longest roots cut back nearly one-third, and the plants be re-set in regular order and distances. Thus, supposing that 200 plants remain in it, and be made to stand four inches apart in rows which are six inches asunder, a bed little more than twelve feet long and about three feet wide, including its edges, will contain this valuable stock, which in severe weather could be covered by three or four garden mats, and thus secure a pretty ample supply of plants for the spring. Another precaution may always be resorted to. In transplanting, deep drills or grooves can be formed by the hoe or spade, and along these the plants may be set so deep, that the lowest leaves may stand just above the soil. I adopted a still more efficient plan of security last October, though I do not recommend it, because I think the growth in the early spring months is thereby retarded. Having a piece of ground set up in ridges, nine inches high, and the time pressing, I planted my young cabbages in the bottom of the trenches between the ridges. On three occasions the thermometer fell twenty-two degrees below the freezing point, and not a plant has been touched, though no covering was applied at any period of the winter. My broccoli, also, has stood in perfect security, in consequence of the stems being lower than the level of the edges of trenches made expressly for them. However, as cabbages ought to be hoed freely in the autumn, and the spaces between the rows digged once or twice, as soon as the plants resume growth in the early spring, it is evident that the ridges present an obstacle to these important operations. If the winter prove mild, the cabbages will progress in some degree; but if by

cold they be rendered torpid, they will start into growth with the early return of solar influence: a few may fly up to seed, but the greater part will form hearts, and can be cut in succession. In cutting, it will be prudent never to take off the green and healthy leaves; those that are inert and yellow, will scale off of themselves, or with the slightest effort; but the green and firm ones have still an important office to perform, in perfecting the axillary buds which produce young sprouts. These secondary cabbages, or "greens," affect an open growth, and in themselves furnish a delicious vegetable, but they may—that is a portion of the best formed among them—be devoted to another purpose of considerable utility in garden economy. The shoots when about five or six inches long, are to be gently twisted off from the stem, and the lacerated heel of each being trimmed perfectly even and smooth with a very sharp knife, but not shortened; the young plant thus rendered a cutting is to be very carefully planted in lightish, sandy, fresh moved loam, so deeply as nearly, but not quite, to include the entire stem. The setting-stick or dibble is to be thrust diagonally into the ground in three or four places, in the direction of the heel, so as to fix it firmly in the soil, and then a little water should be given to each plant to wash the earth closely about the stem. Detached shoots so treated, will frequently produce roots speedily, and bring a supply of excellent secondary cabbages, true to the original varieties; *seeds* are apt to sport, owing to cross impregnations.

To sum up the chief points of cabbage-culture for spring and summer main crops, it must be observed that the *period of sowing* should be strictly attended to; the *seed-beds* are to be slightly hoed to keep the ranks clear of weeds; the stronger plants are to be timely removed to the final beds, wherein two autumnal hoeings and a moderate earthing up must be given during the progress or growth. On the approach of spring, the intermediate spaces are to be digged or forked, after the removal of the inert leaves, and the operation should be repeated when the plants evince the tendency to fold up their inner leaves for hearting. By a careful attention to these needful processes, a bed of fine cabbages will, in favourable seasons, be secured. Having thus dwelt so minutely upon the routine culture of the cabbage for the main spring and summer supply, I shall only allude to that part of the treatment of succession crops, which refers to the summer and autumnal months.

It is usual to give directions for sowing the seed at several distant periods; but my object is to obviate trouble, and to simplify operations as much as possible; and as I have proved that, by attentive management, a regular supply of fine plants may be obtained from one extra sowing, I shall presume that an extensive seed-bed or pot exists, having been prepared late in March or early in April. The mode of culture will be understood by the directions already given; what, therefore, remains to be said, will apply to the order of routine which ought to be observed subsequent to the *first of June*. At that time, we may suppose that the greater part of the cabbages have been cut, the stems remaining being left for the production of sprouts. The seedlings of the April bed that are in a state to be transplanted, should be carefully selected, and set in a bed of rich soil, watered, and attended to in every respect as were those of the spring crop. This first bed, with the cuttings of the sprouts and the other shoots yielded by the

old stems, will produce an ample supply of a second crop during July and August.

After the removal of the seedling plants, those which remain in the seed-bed should be gently lifted and replaced, but at regular distances, three or four inches apart; the ground should be moved, cleared of weeds, made level, and well watered if the soil be in a dry state. Should the plants be very numerous, a hundred or two of the best might, with great advantage, be moved to a succession bed to stand in rows, six inches apart, plant from plant. Thus they will acquire stocky roots, and be checked for a time; while the seedlings will gain strength from the additional space afforded them. If a bed be formed and planted for cabbaging in June, and thence every two months; and especially if—as I must presume—a previous transplantation had already been made during May, it is obvious that a succession of crops will be secured during every favourable season till the end of October; and I may add, from positive experience, that if the weather be then fine, and the succeeding winter prove open and mild ("a green yule"), any remaining stock in the seed-bed, however long-shanked and ungainly they may be, if set deep in the soil of a well prepared bed, may make good progress to the end of November, survive the winter, and produce excellently hearted and sweet tasted cabbages in April. Small they will be, and some perhaps will fly to seed; but those which do succeed, will amply reward the attentive care of the grower. My experience applies, of course, to the latitude of London, though in a county far westward, and much later in its productions; but I presume that in the north also these hints may be rendered to a certain extent available.

2. THE SAVOY, BRASSICA OLERACEA BULLATA OF De Candolle—a variety distinguished from all other hearting cabbages by the puckerings of its leaves. It is one of the prime winter vegetables, and well merits the attention of every one who has a garden or kail-yard. There are three subvarieties—the large yellow, the green, and the smaller *green*, which is the hardiest of the three.

The savoy must be sown pretty early in the spring, and therefore I say nothing now of the early processes of its culture; but as it will require transplanting to plots where it is finally to remain, it will be needful to observe, that, as in all respects the intermediate culture will, as nearly as possible, resemble that of spring sown cabbage, the directions above given will apply to it. In England it is customary to transplant at two or three periods of July for the main winter supply; but it will be proper to commence the work earlier in the north, and to finish by the middle of that month. The ground should be well digged and pulverized; the texture rather light, and the quality rich. Draw drills or shallow trenches about thirty inches apart; tread along the drills or press them with a broad pole, till the soil become smooth and compact; then plant the savoy's eighteen inches asunder, filling the holes with water, and fixing the roots firmly in the soil. After they have become established, and begin to grow, the spaces will require the hoeings and diggings which are so essential to the progress of plants of all the cabbage family, and have been before alluded to. As winter approaches, the earth ought to be brought up to and about the stems.

The planting in open, manured trenches, in *dry* weather will not only secure the growth of the

plants, but greatly tend to protect them from frosts during winter. *Savoy*s are not considered to be in perfection, till they have been exposed to a degree of frost; and they will subsequently furnish the table throughout the winter months.

3. BROCCOLI.—This variety of the cabbage tribe is divided into a number of subvarieties, all of which are excellent furniture for the garden. By Professor De Candolle it is placed in the sixth division of his arrangement, *Botrytis* (*Brassica botrytis*) i. e. resembling a bunch or cluster of grapes, but this grape-like species or variety admits of another subvariety, as No. 1 is the cauliflower, *Cauliflora*, or flowering cabbage; but No. 2 is the broccoli, and is designated as *Asparagoides*, or asparagus-like cabbage. Though the similitude of broccoli to asparagus may appear somewhat fanciful; yet as precision of classification is obtained, it will be perceived that it is far better to enter into minutæ closely, than to persist in a mode of arrangement which is equally ill defined and indiscriminating.

This delicious vegetable is perhaps without its rival in the garden, and its culture is very simple: it is too late, however, in the season to raise it from seed, and therefore, I defer to enter upon a regular detail till the spring of next year. I have, however, raised some of the finest *Portsmouth* cream-coloured, from seeds sown after the 10th of June, which produced compact and exceedingly large heads in the following April and May: it may therefore be worth while to try a small sowing as early as possible in June, following the directions, in as far as concerns the mode of preparing the soil, &c., which are given under the article cabbage, and transplanting into manured trenches, six inches deep, and ten or twelve inches wide, not later, if possible, than the third week of August. In the event of frosts, before November, no time should be lost to bring the earth that was thrown out, and lay as a ridge on each side of those trenches, to the stems of the plants, as is done in earthing celery.

But if we may trust some modern writers of new discoveries, *broccoli* may be propagated by slips, with the most successful results. Every one ought to try the method who has in his garden the stems of plants, the heads of which having been cut show a tendency to protrude sprouts. In the *middle of June*, says a writer, whose article is now before me, (or for Scotland, say as *early as possible in June*.) “I slipped off a quantity of the side shoots, and planted them. I had them well watered and well secured in the soil. They struck root in a very short time, and made strong plants which produced heads of a fine size at the usual season.” “I am persuaded the plan is well deserving attention, not only with broccoli of the same kind I have cultivated (*late flowering purple*) but with many other kinds; thus an excellent variety might be perpetuated without the risk consequent upon seed.”

I have not myself had an opportunity of experimenting upon this vegetable since I saw the article quoted from, but have reason to believe that the plan has been proved to be feasible; in fact, there is nothing in the analogy of the species with its type, which is unfavourable to the operation.

4. PEASE.—At this season of the year it may appear almost too late to speak of the cultivation of the pea; but I am inclined to notice it for a reason which will be shortly explained.

The GARDEN-PEA, of which there are many

varieties, is found in the fourth tribe, *Viciae* (that is among the vetches) of the great suborder PAPILIONACEÆ of the natural order *Leguminosæ*, and in the 17th Class, 4th Order of the Linnean System, *DIADELPHIA Decandria*. Every one is aware of the peculiar shape assumed by the blossoms of plants of the pea tribe; which, it is evident, can readily be made to constitute the type of a very natural class, in which most of our esteemed leguminous or pulse-bearing vegetables are to be found.

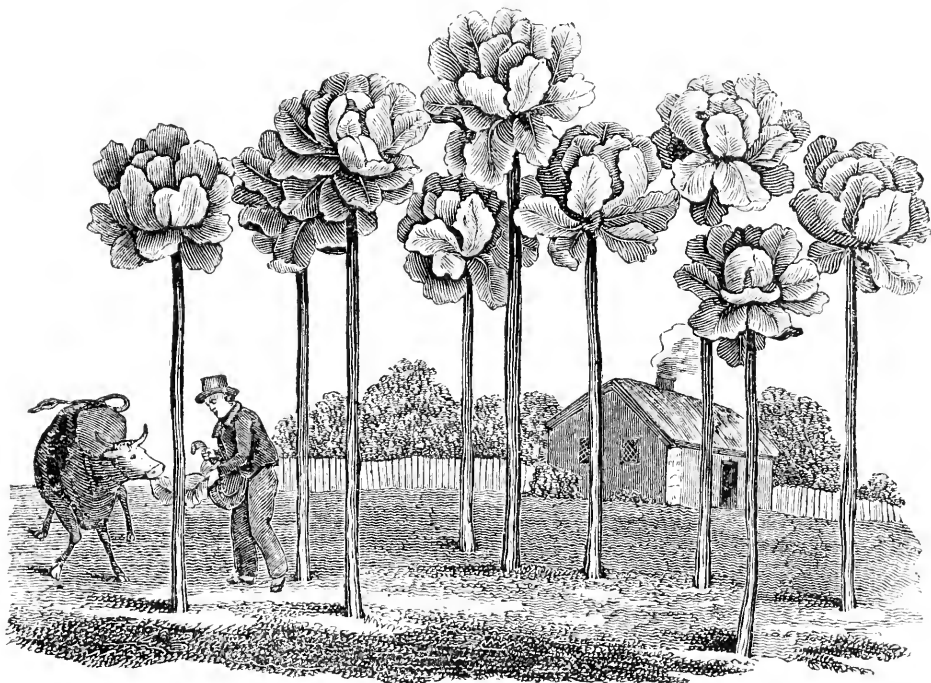
At some future day, I intend to enter at large upon the characters of all the favourite peas for table use; but on the present occasion I only allude to one, which is a great acquisition, and of very recent introduction, the early white *Warwick*. It is adapted to field, as well as garden culture, is moderately prolific, hardy, extremely early, rapid in its course of growth, soon off the ground; and of a high peculiar flavour, that to some persons is extremely agreeable, though others do not affect it.

The seed, two years since, was dear, its price is now reduced; and it is stated that three crops may be produced on the same land, and leave it open for wheat. This, however, I have not seen proved: but having grown the pea, I can recommend it to every one who wishes to possess a rapid grower. A crop sown in a long drill very early in June, may be succeeded by another sown in July, with every prospect of success. If the ground be dry, from a continuance of hot weather, the best method to ensure a vigorous plant is to dig a moderately broad trench, to saturate the soil at the bottom with water, to return the earth into the trench, and make that very wet; then, after covering the earth with mats, or green boughs for a day, just to permit the earth to settle, and so far to drain itself as to become in a workable condition, to strike a drill three inches deep, to sow the seed along it pretty thickly, but not in the crowded state too frequently seen; water should then be poured from the spout of a pot over the pease, and the loose earth returned upon the seeds, and pressed or trodden firmly over them. One liberal preparatory watering thus given, is of more avail than fifty subsequent sprinklings. *Mildew* so common on the plant of autumnal crops, is, as Mr. Knight truly observes, obviated. He has, as perfectly fine peas on his table in October, and it is certain that where disease can be prevented, peas in that season are a delicacy of the first-rate excellence. The *Warwick*, I think, promises to prove a valuable species for the purpose of a late crop, because the course of its entire culture is more rapid than that of the “frame” or early *Charlton* pea. When the plants rise above the soil one inch, the earth near the roots ought to be loosened by the trust hoe. Another hoeing must be given when the plants are three inches high; and then, after drawing the lightened earth to the stems, to the height of an inch and a half, as a ridge on each side, branching sticks a yard high are to be applied. Nothing favours pea culture more than judicious sticking: the plants are brought to the light, are supported, and at the same time protected. *Mildew* is the bane of autumnal crops: it seems to be promoted by a droughty state of soil, high solar heat during the day, and cold dews at night: rapidity of growth produced by a deep moist bed, procured by preparatory and *profuse* waterings, appears to be the only effectual security from this fungus.

## COW CABBAGE.

I received a packet of the seed of this extraordinary cabbage, from a gentleman of Cirencester, who brought it from Jersey, and had sown it. In his garden, I have seen five healthy plants, which

weathered last winter, in the open garden, remarkably well, and seem to be equally hardy with their congeners. I subjoin a sketch and description of this curious esculent, as supplied me in a communication from this friend.



"The above is somewhat the appearance of a plot of a variety of cow cabbage that I saw growing in Jersey. It is much cultivated there, and attains the height of from 4 ft. to 10 ft. or 12 ft. The little farmers feed their cows with the leaves, plucking them from the stem as they grow, and leaving a bunch or head at the top. The stems are very strong, and used for roofing small out-buildings; and after this purpose is answered, and they are become dry, they are used for fuel. When the gathering of the leaves is finished at the end of the year, the terminating bud or head is boiled, and said to be particularly sweet."—*John Murray.*

## ON THE CULTURE OF THE COW CABBAGE, OR CESAREAN COLE.

BY MR. BERNARD SAUNDERS, NURSERYMAN, ISLAND OF JERSEY.

SIR,—Observing an article on cow cabbage, or Cesarean cole, communicated by Mr. J. Murray, permit me, through the medium of your miscellany to offer a few remarks on the subject. Having resided in this island about twenty years, I have had an opportunity of appreciating the great advantage this variety of *Brassica* is to the small farmer as well as to the large one, and will, with your permission, give your readers a brief account of its culture and uses. The seed is sown, from about the 20th of August to the 1st of September, in a good soil, and planted out, from November to January and February, in succession, at from 20 to 30 in. distance, in a good, substantial, well manured soil; as no plant is more exhausting or requires a better soil,

but, perhaps, no one plant produces so large a quantity of nutriment during its period of vegetation. About the month of April they begin (from the first crop) to strip the under leaves, cut them in small pieces, mix them with sour milk, bran, and other farinaceous substances, and give them as food to ducks, geese, hogs, &c. During the whole summer they continue stripping the plant as above stated, until it attains the height of from 6 to 12 ft.; and, if a scarcity of herbage prevails, the green leaves form excellent feed for cows and oxen, with alternate feeds of hay and straw. The tops and side shoots are excellent at table during winter and spring.

The longest of the stalks are frequently used to support scarlet runners and other French beans, and as cross rafters for farm buildings under thatch, and have been known to last more than half a century, when kept dry, for the latter purpose.

I am, Sir, &c.

BERNARD SAUNDERS.

*Nursery, Island of Jersey, April 14, 1829.*

COW CABBAGE, OR CESAREAN COLE.—Noblemen, Gentlemen, and others who take an interest in agricultural pursuits, have now an opportunity of comparing and judging for themselves, by visiting the Bedford Conservatory, Covent Garden, where specimens of the above most excellent variety of *Brassica* have just been received from an eminent nurseryman in the Island of Jersey, and which it is presumed are similar in every respect to those now exhibiting at a perfumer's in Cheapside, and other shops in the metropolis, and for which, as we understand, a packet containing only a few seeds, a most exorbitant price is demanded.

## APPLICATION OF STEAM TO AGRICULTURE.

MR. EDITOR.—Some incorrect statements having appeared in several provincial papers, relative to a recent exhibition near Bolton-le-moors, of the application of steam to bog cultivation, as invented by Mr. Heathcoat, I should feel obliged by the insertion of the accompanying remarks, on the part of myself and those gentlemen who accompanied me to witness this interesting experiment.

I am, Sir, your obedient servant,  
HENRY HANDLEY.

26, Pall Mall, June 13.

## STEAM PLOUGHS.

The adaptation of inanimate power to the tillage of the soil must evidently have been considered by practical men to present almost insuperable difficulties, or steam would, probably, long since have been substituted for horses and oxen, as the motive power of agricultural implements. Certain light operations of the farm, such as thrashing, churning, chaff-cutting, &c., which could be performed by fixed power, have partially occupied the attention of mechanics, and suitable machinery driven by water, wind, or small steam-engines, has to some extent been advantageously used for such purposes. But the idea of a "steam farm," of a farm to be altogether cultivated by steam, in lieu of animal power, has hitherto been treated as visionary and absurd, except by a few individuals, and one or two agricultural societies, who have enforced, in their publications, the practicability and importance of applying steam to effect the more laborious operations of agriculture.

This desideratum is at length accomplished. Mr. Heathcoat, M. P. for Tiverton, the ingenious and well-known inventor of the lace machinery, has the merit of having conceived and planned this additional and remarkable contribution to science, and to the wealth of his country. The invention, after years of costly experiment, has been matured and perfected through the enterprising liberality of Mr. Heathcoat, assisted by the mechanical ingenuity and perseverance of Mr. Josiah Parkes, civil engineer, whom he selected to carry his designs into effect. The first machine has been constructed expressly for the cultivation of bogs, and has, for some months, been practically and successfully worked in Lancashire, on Red Moss, near Bolton-le-Moors.

During the Whitsuntide recess of Parliament, a numerous assemblage of gentlemen from different parts of the country attended to witness an exhibition of this novel and interesting invention; amongst whom were Mr. M. L. Chapman, M. P., Mr. T. Chapman, Mr. H. Handley, M. P., Mr. J. Featherstone, of Griffinstown-house, Westmeath (an enterprising and successful bog-reclaimer), Mr. F. Brown, of Welbourn, Lincolnshire, Mr. James Smith, of Deanston, near Stirling (well known to the mechanical world by his ingenious inventions, applied both to agriculture and manufactures), Mr. B. Hiek and Mr. P. Rothwell, engineers, with other experienced judges of mechanical contrivances. These gentlemen were unanimous in pronouncing the invention to be the germ of great improvements in the science and practice of agriculture, as well as eminently fitted for the particular purpose to which it has, in the first instance, been applied. Two ploughs of different

construction were put in action, to the admiration of the spectators; particularly the one last invented, which is double-acting, or made with two shares in the same place, so that it returns at the end of a "bout," taking a new furrow, without loss of time. The perfect mechanism of this plough—the action of the working coulters and under-cutting knives, which divide every opposing fibre of the moss—the breadth and depth of the furrow turned over—the application of a new and admirable means of traction, instead of chains or ropes—together with the facility with which the machine is managed, and the power applied to the plough, especially interested and surprised all present. The speed at which the plough travelled was  $2\frac{1}{2}$  miles per hour, turning furrows 18 inches broad by 9 inches in depth, and completely reversing the surface. Each furrow of 220 yards in length was performed in somewhat less than three minutes, so that in a working day of twelve hours, this single machine would with two ploughs turn over ten acres of bog land!

The machine which bears the steam-engine is itself locomotive; but as the ploughs are moved at right angles to its line of progress, not dragged after it, the machine has to advance only the width of a furrow, viz., eighteen inches, whilst the ploughs have travelled a quarter of a mile; in other words, the machine has to be moved only eleven yards, in the time that the ploughs have travelled five-and-a-half miles, and turned over a statute acre of land. This is, in truth, the prime distinguishing feature of the invention; it is the contrivance on which the genius of its author is more particularly stamped, and which seems to be essential to the economical application of steam to husbandry; for it is evident, that were it requisite to impel the machine with a velocity equal to that of the ploughs, by dragging them with it, a great proportion of the power of the engines would be uselessly expended.

Another valuable property appertaining to the machine, and which conduces greatly to its economy as a bog cultivator is, that it requires no previous outlay in the formation of roads, no preparation of any kind further than a drain on each side of it. That a locomotive machine of such great dimensions and power could be so constructed as to travel on mere raw bog, was an excellence the more appreciated as it was unexpected by those persons who are conversant with the soft, unstable nature of bog. The Irish gentlemen present also pronounced Red Moss to be a fair specimen of the great mass of the flat, red, fibrous bogs of Ireland, and that neither the machine nor the ploughs would have any difficulties to encounter in that country which had not been already overcome on Red Moss, the field of experiment. The engines are capable of working up to fifty horse power, but the operations subsequent to ploughing will require a small force compared with that necessary for breaking up the surface of the bogs, to the depth and at the speed effected by these ploughs. The power consumed by each plough is estimated at about twelve horses, and the weight of the sod operated upon by the plough, from point to heel, is no less than three hundred pounds. The boiler is of unusually large dimensions for locomotive engines, being suited to the use of peat as fuel, so that the culture of a bog will be effected by the produce of its drains. At Red Moss, however, coals are so cheap, being found contiguous to and even under it, that they are used in preference to turf. Eight men are required for the



management of the machine and the two ploughs, or at the rate, nearly, of one man per acre; but it must be understood that this number of men will only be required for the first heavy process, and has no relation to any subsequent operations in the cultivation of bogs, nor to the application of the invention to the culture of hard land. After passing a sufficient time on the Moss to witness the exhibition of the ploughs, and the various other functions and properties of the machine, the party expressed to Mr. Heathcoat the extreme pleasure they had received, and their earnest hope that he would extend the sphere of his exertions by applying the invention to the culture of stiff clay soils; and more especially to carry into effect those important operations of sub-soil ploughing and improved drainage recently introduced to the agricultural world by Mr. Smith, of Deanston. To effect these processes, great power is essential, and it was evident that Mr. Heathcoat's invention was equally well adapted to them, and would be attended with results no less important than those which will arise from its application to the reclamation and culture of bogs.

### SOILING.

By the term soiling, is understood the feeding of cattle in a house, shed, or fold, with cut green food, instead of depasturing the field, or making the grass into hay.

Various articles are employed for this purpose, as tares, lucern, and meadow-grass; also barley, rye, oats, and beans, all in a green state; but red clover, either alone, or mixed with rye-grass, is the substance most commonly applied.

Soiling, according to Sir John Sinclair, is attended with the following advantages:—

1. THE SAVING OF LAND.—Exaggerated accounts have been given of the saving of land. Some have contended that it is as one to seven, if not more. By accurate experiments, it appears that it may safely be stated as one to three, an advantage alone well entitled to the attention of the industrious and intelligent farmer.

2. ADVANTAGES TO THE FENCES.—Where stock are stall-fed, fences are not so necessary, and in this way there may be a saving of land, and a diminution of expenditure.

3. THE SAVING OF FOOD.—Animals destroy the grasses, destined for their food, when pasturing upon them, in many different ways:—By eating, by treading, by dunging, by staling, by lying down, and by breathing on them. Of these the first alone is useful. All the others tend to waste, and that waste is always in proportion to the richness and productiveness of the soil.

THE IMPROVEMENT OF STOCK.—This advantage is applicable to all the different sorts of stock, more especially in dry seasons, when pastures are apt to fail.

Working oxen derive great benefit from soiling. They are saved the trouble of collecting their food, after their work is over, and run no risk from noxious vegetables, or unwholesome water. They can fill themselves much sooner, and consequently have more time for rest; and they can take their repose much better, in a stable or shed, with plenty of litter, than in an open field, where there are so many things to annoy them.

The experiments of soiling cattle have likewise

been successful. Young steers become more tractable for work, and are exempted from many accidents and disorders to which they are otherwise liable. The size and the symmetry also, to which cattle may be brought, when thus kept constantly sheltered, in a progressive state of improvement, without receiving any check whatever, justifies the idea that such stock will surpass those exposed to the vicissitudes of climate, and other inconveniences inseparable from the grazing system, though pastured on fields of the richest and most luxuriant herbage.

Milch cows may also be soiled with considerable advantage; it is always expedient to soil them in the middle of the day at least, especially in hot sultry weather, that they may not be tormented with flies in the field, nor induced to stand in brooks, or ponds of water, nor in the shade of spreading trees or hedges, by which much valuable manure is lost. The stock are thus kept in a healthier state, and the milk is of superior quality. During the flush of the season the quantity of milk may be as great from good pastures; but when they begin to fall off, cattle, regularly and abundantly fed in a house, must be greatly more productive for the purpose of the dairy.

5. INCREASING THE QUANTITY, AND IMPROVING THE QUALITY OF THE MANURE.—This advantage cannot be controverted. When land is pastured, the dung that falls upon it is destroyed in various ways, and does not go through the process of fermentation. Whereas, by soiling, not only a greater quantity of rich dung is obtained, but it may be 'manufactured to more advantage.'—Besides, dung made in summer is always superior to that made in Winter, for the warmth of the weather promotes a rapid fermentation, and generates several valuable substances, the formation of which, the cold of Winter, and the superfluous moisture of that season, in a great measure prevent. By this means, also, clay land farmers are, in respect of manure, put more on a footing with turnip soils.

6. INCREASING THE VALUE OF LAND PRODUCE.—There is certainly no mode by which cultivated grasses will pay so well as by soiling. In the neighbourhood of towns, the same land will produce at the rate of from 20*l* to 25*l* per statute acre cut for soiling, which would be considered high at 9*l* or 10*l* if let in pasture. The expense of carting the cut grass must, however, be deducted.

In conducting the soiling process, the grass, whether natural or artificial, ought to be cut in the morning for the evening food, and in the afternoon for the morning mess: the afternoon crop should be carried to the barn or some other convenient place, and spread out in order to exhale its superfluous moisture; and in rainy weather, both crops must be taken off the ground. Attention, however, ought to be paid to the due proportion to be cut; and, until that fact be ascertained, it is a good plan to measure each mess, and to chalk down the quantity in weight, which the basket, cart, or other vehicle, employed for carrying food, contains of the various articles used for that purpose. The practice will, at least, have a tendency to teach farm servants to observe method, the value of which is of considerable importance in all business, particularly in the various branches that are connected with, or dependant on, a grass farm. On the supposition, therefore, that seventy-five pounds' weight of green clover will be sufficient for one beast, where thirty-two head of cattle are to be fed, 1200 pounds will be cut twice in the day; thus eight acres, cut four

times in the season of soiling, will, on an average, give one cutting in six weeks, or nearly thirty perches are cut daily. A man and a boy may perform all the work, and pay all the attention requisite in soiling that number.

That the soiling system is attended with great labour, in cutting, collecting, and conveying the food,—in feeding and keeping the stock clean,—in carrying the manure to the fields, and also occasions some expense in buildings, cannot be denied; but surely these objections are amply compensated by the advantages above detailed. In all cases, therefore, where the soil and climate are favourable to the practice of soiling, there cannot be a doubt of its utility, and the propriety of its adoption.

## COACH-HORSES.

### WHAT DO THEY THINK OF THE COACH ?

When a coach sets off again from its stoppage at an inn-door, there is a sort of freshness and recommencement; the inside passengers settle themselves in their corners, or interchange legs, or take a turn on the outside; the outside adjust themselves to their seats and their bits of footing; the young woman looks for the ninety-ninth time to her box; the coachman is indifferent and scientific; he has the ease of power in his face; he shakes the reins; throws out a curve or so of knowing whip, as an angler does his line; and the horses begin to ply their never-ending jog. A horse's hind-leg on the road, to any eye looking down upon it, seems as if it would jaunt on for ever; the muscle works in the thigh; the man at the same time dances a little bit; the hock-joint looks intensely angular, and not to be hit (it is horrible to think of wounding it;) the hoof bites into the earth; wheels and legs seem made to work together like machinery; and on go the two patient creatures, they know not why nor whether, chewing the unsatisfactory bit, wondering (if they wonder at all) why they may not hold their heads down, and have tails longer than five inches; and occasionally giving one another's noses a consolatory caress. It is curious to see sometimes how this affection seems to be all on one side. One of the horses goes dumbly talking, as it were, to the other, and giving proofs of the pleasure and comfort it takes in society; while the other, making no sort of acknowledgement, keeps the "even tenor of its way," turning neither to the right nor left, nor condescending to give or receive the least evidence of the possibility of a satisfaction. It seems to say, "you may be as amiable and patient as you please; for my part I am resolved to be a mere piece of the machinery, and to give these fellows behind us no reason whatsoever to suppose, that I make any sentimental compromise with their usurpations over us."

Horses in a coach must certainly be the most patient, or the most indifferent, or the most unthinking of animals. The mule seems to have an opinion of his own: he is not to be driven so easily. The dog passes a horrible unsatisfied time of it under the butcher's or baker's go-cart. Harnessed elephants would be inconvenient. They would be for re-adjusting their buckles, and making inquiries with their trunks, into the behaviour of the postillion. They might, to be sure, help with the other trunks, and perform the part of half horse, half ostler. The Llama of Peru has inconvenient

tricks, if you ill-use him; and so has the camel. But the horse, when once he is ground well into the road, seems to give up having any sort of mind of his own—that is to say, if he ever had any, except what his animal spirits made to be mistaken for it; for the breeding of horses is such in England that, generally speaking, when they are not all blood and fire, they seem nothing but stupid acquiescence, without will, without curiosity, without the power of being roused into resistance, except poor souls! when their last hour is come, and non-resistance itself can go no farther, but lies down to die. We dock their tails to subject them to the flies; fasten their heads back to hinder them seeing their path; and put blinkers at their eyes for fear of their getting used to the phenomena of carriage and wheels behind him. What must they think (if they think at all) of the eternal mystery thus tied to their bodies, and rattling and lumbering at their heels?—of the load thus fastened to them day by day, going the same road for no earthly object (intelligible to the horse capacity,) and every now and then depositing, and taking up other animals who walk on their hind-legs, and occasionally come and stroke their noses, kick their bellies, and gift them with iron shoes?

Well, circumstances drive us, as we drive the horses,—perhaps with as many smiling remarks on the part of other beings at our thinking as little of the matter;—so we must be moving on.—*Hunt's London Journal.*

## TO THE EDITOR OF THE MARK LANE EXPRESS.

Glasgow, June 16.

SIR,—In looking over Agricultural reports, in attentively examining my correspondents' letters, and in conversations with farmers, I am led to the following conclusions on a subject interesting to all, and which may not be unacceptable to the readers of your paper.

There are four distinct complaints of the present Wheat crop:—1st, less sown; 2nd, its lateness; 3rd, thinness on the ground, and 4th, spiry and short in the straw. The first of these is universally admitted, the second complained of, and the two last said to be very general.

Now, if only one of these four hold true at harvest, there is very little chance indeed of our having a crop equal to any of those reaped within the last four years. If two hold true, there will be great deficiency; if three, I have no doubt of very high prices; and, if all four, there is no saying how much foreign grain the country may require.

If I am wrong in my statement and deductions, I hope some of your able correspondents will put me right. There is a vigour at present in the leading Wheat markets that surprises some people, and I have attempted to explain the reason without making vague calculations of stocks and consumption.

I remain, Sir,

Your most obedient servant,

CERES.

EXTRAORDINARY SHEEP SHEARING.—Mr. Mear, of Holway Farm, Taunton St. Mary Magdalen, on Thursday last, in the space of twelve hours, sheared, in the best possible style of workmanship, the extraordinary number of *fifty-one* store ewes, the property of a respectable farmer near Taunton. The produce was 331½ lbs of clean-washed wool.

## DORSET AGRICULTURAL SOCIETY.

The General Annual Meeting of this Society was held at Blandford, on Wednesday the 15th June instant, when the following premiums were awarded:—

**INDUSTRY AND FAITHFUL SERVITUDE.**—Class 2.—Archelaus Wellstead, for length of servitude with Mr. Jas. Burgess, the first premium; John White, for length of servitude with Mr. Henry Fookes, the second premium; Mary White, servant to Mr. H. Fookes, for reaping the greatest number of acres of wheat, two guineas; Mary Cuff, also servant to Mr. H. Fookes, for reaping the next greatest number, one guinea.

**SHEEP SHEARING.**—Class 1.—Thomas Ballam, the first premium; John Harris, the second; William Harris, the third.

**LIVE STOCK AND WOOL.**—Class 1.—To J. J. Farquharson, Esq., the first premium, for the best one-year-old South-down ram; to Mr. H. Fookes, the second; to Mr. J. House, the first premium, for the best one-year-old South-down ram in the wool, shorn at the meeting; to Mr. Hott, the second.

Class 2.—To Mr. H. Fookes, the first premium for the best two-year-old South-down ram; to J. J. Farquharson, Esq., the second; to Mr. House, the first premium for the best two-year-old South-down ram in the wool, shorn at the meeting; to Mr. Hott, the second.

Class 3.—To Mr. H. Fookes, a bounty for a South-down ram of any age.

Class 4.—To Mr. R. Burgess, the first premium for the best lot of South-down ewes; to J. J. Farquharson, Esq., the second; to Mr. Hott, the first premium for the best lot of twelve South-down ewes in the wool; to Mr. Henry Fookes, the second.

**CATTLE.**—Class 1.—To J. J. Farquharson Esq., the first premium for the best pair of working oxen; to Mr. Robt. Bridge, the second.

Class 2.—To Mr. J. Burgess, a bounty for a one-year-old Devon bull; to Mr. R. Burgess, a bounty for a Durham bull of any age.

Class 3.—To Mr. Jas. Burgess, the first premium for the best pair of two-year-old Devon heifers; to Mr. J. House the second.

Class 4.—To Mr. J. Burgess, the first premium for the best pair of one-year-old Devon heifers; to Mr. House, the second; to Mr. R. Burgess, a bounty for a pair of one-year-old Durham heifers.

**FAT STOCK.**—Class 1.—To J. J. Farquharson, Esq., a bounty for a pen of six-teeth Down wethers.

Class 2.—To Mr. Hott, the first premium for the best pen of fat ewes; to Mr. R. Burgess, the second.

**EXTRA STOCK.**—To Mr. H. Fookes, a bounty for four rams and four ewes.

**SWINE.**—To Mr. R. Bridge, the first premium for the best boar; to Mr. H. Fookes, the second; to Mr. Henry Fookes, the first premium for the best breeding sow; to Mr John House, the second.

The officers of the Society were re-elected for the year ensuing.

A unanimous vote of thanks was given to the President J. J. Farquharson, Esq., for his past services and exertions in behalf of the Society. The members dined together at the Crown Inn, and the evening was spent with the greatest conviviality.

**ITINERANT AGRICULTURAL LIBRARY FOR EAST SUSSEX.**—The great benefit derived in North Britain from similar establishments, has induced some of the principal farmers, clergy and landed proprietors, to join in a subscription of half-a-crown annually for

the purchase of the Quarterly Journal of Agriculture, and Prize Essays and Transactions of the Highland and Agricultural Society of Scotland; which received its first charter from George III., in 1784, of which the Duke of Argyle was president, and the Earl of Aboyne vice-president; and the second charter from his present Majesty. In consequence of the eminent utility of this Society, not only to North Britain, but to the nation at large, of which the president is the Duke of Buccleugh, and the vice-presidents, the Dukes of Gordon and Sutherland, the Marquis of Tweedale, the Earl of Roseberry, with upwards of nineteen hundred members, including a large proportion of the noblemen and gentlemen of rank, landed property and professional eminence in Scotland; whose names being printed, as well as the list of premiums, in their 28th number, a copy of it has been sent to the printers of this paper; to Eber's Circulating Library, Brighton; Heatherley's, Eastbourn; also to the principal libraries at Hastings; and when, and wherever a sufficient number of subscribers give in their names, a separate set of the future numbers will be deposited for easy reference, with the privilege, in the order of their subscriptions of having the use of the 32 first numbers of the Edinburgh Journal of Agriculture, of which Mr. Lower, at Lewes, has taken charge; and also of any other Agricultural works, which may be added, to which subject this subscription is confined.—*Sussex Advertiser.*

**SALE OF ENGLISH SHEEP IN FRANCE.**—A sale of Leicestershire and Kentish rams, and Leicestershire ewes of the Alford flock, took place on the 5th instant. The day of sale being that of the Agricultural Club of the Seine et Oise, the graziers in the vicinity of Paris could not attend. The graziers of Picardy and of Nivernais became purchasers of 31 rams and 20 ewes, at prices from 600*l.* (24*l.*) to 105*l.* (4*l.* 4*s.*) The *Journal du Commerce* says that no sheep are so proper to improve the native breed as the Leicestershire, they being fat at the same age that the French sheep are meagre.

**CROPS.**—The appearance of the hop-yards in this neighbourhood is as favourable as ever remembered. The weather has evidently been most beneficial to them, the bine being remarkably strong, and the whole appearance of the plants being most luxuriant. The wheat is looking well in most places; and in some forward situations near this city, harvest will, probably, commence about the middle of August. Old hay is now, and has for some time been, selling in this county at the advanced price of from 4*l.* to four guineas per ton. The crops this year upon the light grounds will not, it is thought, amount to half of what they were last year.—*Hereford Journal.*

**ANNUAL SALE OF FAT CATTLE AND SHEEP at Grange Distillery Farms, Fifeshire.** This sale took place Monday 6th inst. At an early hour a most respectable company assembled, more numerous than at any previous sale. The sale commenced with the cattle, which were put up in pairs. Heavy four and five-year olds brought from 45*l.* to 50*l.* a pair. Some single bullocks sold at 28*l.* to 32*l.* The average sale of the stock exhibited was computed to be from 7*s.* to 7*s.* 6*d.* per imperial, or 9*s.* to 9*s.* 6*d.* per Dutch stone. The 450 cattle, sold at the lowest average of 18*l.* a-head, would amount to upwards of 8000*l.* After the sale of the cattle, ten score of fat sheep were brought forward, and exposed by the score. Full aged Cheviot wethers, brought 53*s.* 6*d.* a-head. Cheviot hogs, 35*s.* to 37*s.* One lot of superior wether hogs, bred from the black-faced ewe and Leicester ram, lambed on the farm of Kingside, Peebles-shire, brought 43*s.* a-head. The sale concluded about three o'clock, after which the gentlemen present, to the number of nearly 300, sat down to a most sumptuous dinner with Messrs. Young, who had provided liberally for the occasion.

## AGRICULTURAL REPORTS.

### GENERAL AGRICULTURAL REPORT FOR JUNE.

The general complexion of the whole range of vegetation since the date of our last report—notwithstanding the almost continual prevalence of cold night winds—blowing, for the most part, from the north-west, has undergone a most propitious change. This improvement has been matter of general observation during the last fortnight. We still conceive, that, notwithstanding the unfavourable rumours which have been circulated, as price spurs, by speculators in grain, &c., that the present year will be productive—making a fair deduction for the breadth of land that has been forced out of corn into grass tillage—of a full average general crop of wheat and beans, and not a very deficient one of peas, oats, and barley; though, as relates to the three latter, there may be some partial deficiencies. The growing wheat may now be considered as, generally, in full ear, and not an inconsiderable part of it in full bloom, the remainder rapidly coming into flower, thus indicating nearly, or quite, as early and equally productive corn harvest as last year. The hay harvest, too, which commenced in the early part of the present month, and in some instances much earlier, has become general, in, we believe, all parts of England, with a fair average though backward, crop of both meadow and seed hay. Hence, hay-making, fallow-ploughing, and denchering, comprise the principal farm operations of this month, with the exception of the provisions requisite for the commencement of the corn harvest. In time gone by, it was the practice of farmers to allow their sons and servants to play cricket matches between hay time and harvest, but we are apprehensive, that either the short interval between them will, this season, counteract that delightful, health-creating, amusement, or the latter will be commenced before the former is finished.

There is no sheep-rot spoken of, and every description of live farm stock is described as being healthy and doing well in the pastures; and the grass-fed beasts, that have hitherto reached our fat stock markets, though, at present, light weighers, and not over-stocked with internal fat, are fully as ripe as in the ordinary run of Junes; but most of the beasts that have been stall or close-fed, during the last winter and spring, have not, owing, probably, to the badly-harvested state of the last year's crops of hay, and deficiency of turnips, carried more than half their wonted quantity of interior fat, nor have been so externally ripe, as in the corresponding seasons of past years; whilst the large warm-woolled Lincolnshire and Leicestershire breeds, which are, for the most part, fattened upon the same kind of food as are the Norfolk beasts, have come out of their wool unusually fat, and so, indeed, do the Leicester half-breds, South-downs, and the white-faced, or Cheviot Scotch sheep.

The recent meeting of the Central Agricultural Society, at which the Duke of Newcastle presided, and which appears to have been attended by Earl Stanhope, Lords Kenyon and Wynford, M.P.'s, M.C.S.'s, &c., to the number of about 200, has excited, or provoked,—we scarcely know which word to apply—in the agricultural community much mirth, by the disputation in behalf of, and against, tithes.

The shearing of the ewe flocks on the South Downs of Sussex has commenced with both ewes and lambs in excellent condition, and the former yielding a good, heavy, and fine-textured fleece.

Many farmers appear to be much amused with the agricultural coquetry of Lord John Russell, and the theory of his colleagues in office, relative to their affairs, both of which they seem to think very averse to their interest, especially as relates to the tithes question, which they seem to most fervently wish that, on account of the head of his family being one of the most extensive lay-impropriators in the kingdom, both his lordship and a great majority of his lordship's colleagues had never had anything to do with. Neither farmers, nor any other part of the agricultural community, have ever manifested a desire to starve the church, but one and all appear to desire that lay-impropriations should be wholly abolished, and, if clerical tithes could possibly be dispensed with, a respectable subsistence allowed out of the general taxes.

As relates to the prices of farm produce, those of most kinds of grain, as also malt and flour, have been, though occasionally vacillating, in the whole, about stationary, of both fat and store stock; with wool, poultry, and dairy produce, stationary, and, in some instances, dear; with hops, hay, straw, milch cows, and horses, rather drooping.

The following is a retrospective statement of the supplies and prices of fat stock exhibited and sold in Smithfield Cattle Market, in the course of the four weeks, ending on the 20th inst.

#### SUPPLIES.

		Beasts.	Sheep.	Lambs.	Calves.	Pigs.
May	27.	650	3500	5000	270	420
—	30.	1690	14000	6500	300	420
June	2.	1121	3500	7000	320	395
—	6.	2455	15500	7000	270	380
—	10.	536	4200	8000	230	320
—	13.	2460	17000	7500	350	395
—	17.	565	4200	5000	350	310
—	20.	1950	18200	8000	300	380
Total ..		11427	89100	54000	2390	3010

Supply of preceding month.	10576	55000	24000	2130	3102
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By the above supplies, it appears, that those of last month embraced 851 beasts, 44,100 sheep, 30,000 lambs, and 260 calves less, 92 pigs more, than those of the present.

PRICES.—At per 8lbs sinking the Offals.

	May 27.		June 20.	
	s. d.	s. d.	s. d.	s. d.
Inferior Beef . . . .	2 10	to 3 0	..	3 0 to 3 2
Middling, do. . . .	3 4	to 3 8	..	3 6 to 3 8
Prime, do. . . . .	4 2	to 4 8	..	4 4 to 5 0
Inferior Mutton . .	3 4	to 3 8	..	3 2 to 3 6
Middling, do. . . .	4 2	to 4 6	..	3 8 to 4 0
Prime, ditto, . . . .	4 8	to 6 0	..	4 6 to 4 10
Lamb . . . . .	5 10	to 6 8	..	4 10 to 6 0
Veal . . . . .	4 2	to 5 2	..	4 0 to 5 0
Pork . . . . .	3 6	to 4 8	..	3 6 to 4 8

It will be perceived, by the above statement of prices, that those of beef were from 2d to 4d per 8 lbs dearer; of mutton—on account of the whole of the

sheep being out of the wool—2d to 1s 2d; of lamb 8d to 1s; and of veal 2d per 8lbs cheaper on the 20th of June, than on the 27th of May current year; whilst those of pork were stationary, throughout the month.

	June 22, 1835.		June 20, 1836.	
	s. d.	s. d.	s. d.	s. d.
Coarse and inferior beasts	2 0	2 2	3 0	3 2
Second quality do.	6 2	2 10	3 6	3 8
Prime large oxen	3 8	3 10	3 10	4 2
Prime Scots, &c.	4 0	4 4	8 5	5 0
Coarse and inferior sheep	2 4	2 5	3 2	3 6
Second quality do.	6 3	3 0	3 8	4 0
Prime coarse-woolled sheep	3 4	3 6	4 2	4 6
Prime South Downs do	3 8	4 0	4 8	4 10
Lambs	5 0	6 2	4 10	6 0
Large coarse calves	3 4	4 0	4 0	4 6
Prime small do.	4 2	4 6	4 8	5 0
Large hogs	3 0	3 6	3 6	4 2
Neat small porkers	3 8	4 0	4 4	4 8
Suckling calves (each)	10 0	20 0	15 0	20 0
Quarter old store pigs (each)	8 0	12 0	12 0	20 0

SUPPLIES.

	June 22, 1835.	June 20, 1836.
Beasts	2,147	1,950
Sheep and lambs	24,010	26,200
Calves	271	300
Pigs	394	380

It appears, by the above comparison, that beef was from 2d to 1s; mutton, 10d to 1s 2d; veal, 6d to 8d; and Pork, 6d to 8d per 8lbs dearer; lamb, 2d per 8lbs cheaper, on Monday June 20, 1836, than on the corresponding market day last year, viz, June 22, 1835; whilst there were 197 beasts, and 14 pigs less; 1,190 sheep and lambs, and 29 calves more, on the former, than the latter market day.

From the 27th of May to the 20th of June, present year, about 755 of the beasts forming the supplies of Smithfield and Islington markets, came from Lincolnshire, Leicestershire, Northamptonshire, up the St. Albans' road; about 850 up the other northern roads: about 935 from the western and midland districts; about 5,666 from Norfolk, Suffolk, Essex, and Cambridgeshire, but chiefly from the former county: about 2,660 by sea—principally by steam vessels—from Scotland; about 202 from Sussex, Surrey, and Kent; and the remainder, including about 145 lusty town's-end cows, from the marshmen, cattle-lodges, cowkeepers, &c., in the neighbourhood of London.

The following are the supplies of fat stock, exhibited in Islington New Cattle Market, on the days of their respective dates.

	Beasts.	Sheep & Lambs.	Calves.
May 27.	72	250	—
— 30.	789	1,796	6
June 2.	85	545	11
— 6.	670	2,140	7
— 10.	89	634	3
— 13.	375	2,718	7
— 17.	74	645	4
— 20.	334	2,566	10
Total	2,488	11,294	48

The chief falling off, of the last two month's Smithfield supplies, is partially ascribed to the supplies of Islington market, being generally derived from Smithfield's original sources, and partially to the bad quality, in Norfolk, of the last year's growth of hay, and a deficiency of winter and spring turnips.

From the commencement of the shorn sheep, from our northern districts, particularly those from Lincolnshire and Leicestershire, they have been unusually prime, and are now in the height of their season. The South Downs too, are, with the generality of the lambs, for the most part—as, indeed,

are all the polled breeds of sheep, excepting yearling wethers, or teggs, though not so fat as we have seen them in June,—strong and healthy.

Nearly, or quite, two-thirds of the month's beasts have consisted of Scots, fattened either in England or Scotland; the remainder, of about equal numbers of Herefords, short-horns, and Devons; with a considerable number of Norfolk homebreds, Sussex and Irish beasts, and lusty cows.

About three-fifths of the month's supply of sheep have consisted of new Leicesters, of the South Down and white-faced crosses; about a fifth South Downs and old Leicesters; and a moiety of the remainder, of Kents, Kentish and Norfolk half-breeds; the rest, chiefly of horned Norfolks and Dorsets, horned and polled Scotch and Welsh sheep, &c.; about 1,900 of them coming alive from Scotland.

The lambs have been, for the most part, South Downs and new Leicesters, with a considerable number of Dorsets, Kentish half-breeds, &c.

A great deal of slaughtered meat has reached the metropolitan meat markets, from Scotland and the north and west of England, in the course of the month; also a considerable number of live pigs, from Ireland; but how many, from the manner in which they are stowed away, in different parts of London, it is impossible to ascertain.

SUFFOLK.

The unfavourable weather experienced during May threw a gloom over our expectations with respect to the growing crops; the wind continuing in the east and north-east all the month, accompanied by frosts at night, prevented, or at least severely checked, vegetation. Since the commencement of the present month we have had some refreshing showers, with a much more temperate atmosphere, so that the appearance of the crops, and indeed the entire face of the country, are changed almost as if by magic.

The wheats, we are nevertheless fully persuaded, will be light in bulk, and although many pieces appear very luxuriant to pass by, yet nineteen out of twenty will not bear an examination. Barleys are looking well, with but few exceptions, and should a continuance of favourable weather ensue, the prospect is decidedly better than that of wheat; of oats we may make the like observation. Beans and peas are at present looking healthy; the former are somewhat short in the straw, but if they doth escape the louse (of which we entertain a doubt, as thistles, roses, &c. are much infested with them), there may be a tolerable crop. Clovers are very short, and their having began to head before the rain and warm weather occurred, the first crops will be very light. Grass, also, from the same cause, is short, and the bulk of hay must be light. Winter vetches, although during the winter they were very promising, are but a meagre crop. Trifolium is nearly a total failure; we, however, would not recommend its culture to be wholly abandoned, which perhaps is not sufficiently understood at present; it is evident, in the majority of cases in which it failed, it was owing to not being sown sufficiently early for the plant to get strong to stand the severity of winter; an instance we noticed, and which confirmed this opinion, was where some trifolium was drilled between the rows of stubble directly the field was cleared of wheat, the haulm was left standing during the winter, which protected the young plants from the severity of the weather; that piece is as beautiful a crop as we wish to see, indeed we have not seen a piece of clover anything like its equal.

The rains have come very opportunely for mangel

wurzel and Swedes, of which we consider, particularly of the latter, a greater breadth than usual to be planted, as it was known by experience during the last three months the value of mangel, where they were fortunate enough to secure a plant.

Stock generally has not done well, for want of sufficient feed; all kinds of cattle, however, are commanding fair prices. The markets for corn are firm at remunerating prices, which we hope and believe will continue.—*June 17.*

#### CUMBERLAND.

The weather of late has been quite to extremes; during the month of April it was unusually wet and cold; for the whole of May, and till about the end of the first week of the present month, it was extremely dry, with cold frosty nights, accompanied with northerly or eastern winds. Vegetation made but slow progress, and, as may be expected, grass is unusually scarce. Cattle have suffered much from want; first, from the want of hay; and now, from the backwardness and shortness of the pastures. Last week the wind got round to the south-west; since then, we have had many fine rains. Vegetation is now making rapid progress, and, it is to be hoped, that stock will soon have plenty of keep. Hay must now be a very light crop, particularly the sown grass, and it cannot be estimated to produce more than one-half an average crop. Wheat is very backward, it will be light in straw, particularly upon the cold lands. Oats and barley look better than could be expected, and may, from present appearance, be a good crop. Potatoes are doing badly, many fields are a complete failure, and the seed is decayed. We have had fine weather for turnip fallows, and it is now a suitable season for sowing. Beef and mutton very scarce, and likely to be so for some time to come; in consequence of the scarcity, fat cattle and sheep command high prices. Wool sells very well, and at much the same prices as was obtained last year. We have also a good demand for grain, prices are fully one-third higher than they were during the winter, but the rise in price only benefits a few; a great number of the farmers, for want of money, sold all they had at the low prices.—*June 15.*

#### LINCOLNSHIRE.

The fine showers which are so generally reported to have visited nearly every other district of England in the early part of this month, have never fallen on the eastern side of this County, in sufficient quantity, to benefit the grass land, before yesterday; when we had a steady, mild, and searching rain of several hours duration; which is this day succeeded by a warm dull atmosphere, highly beneficial to vegetation in general; and will prove a timely succour to our feeding pastures. The meadows will be much benefitted, although it has come too late to create any thing like abundance. The small showers which fell partially during the last fortnight have restored the colour of the corn generally, which now appears healthy, and the barley having very much improved, may approach to an average crop. The wheat is breaking into ear upon the warm soils too early, and before a sufficient length of straw has been produced, and in like manner, the oats, thus portending but little bulk either in corn or straw. The beans are short and slender in the stem, but will be greatly benefitted by this change, and may yet be an abundant crop. The operations upon the fallows in cleaning, manuring, and preparing for turnips, have been brought into a forward state by the long continuance of dry weather, and as the seed sowing has commenced, and will be completed (or nearly so) in the next fortnight, there is every prospect of

a full crop, unless there should be a return of frosty nights, as from the general system in this county of drilling bones, burned soil, and other compost with the seed, it vegetates and grows so rapidly as to be soon out of reach (in this stage) of its only enemy, the fly. Clover mowing has not yet commenced, but will become general in another week, with the prospect of turning heavy under the scythe. Sheep-shearing is going on in full vigour, and the flocks generally bare in good condition. Wool is selling freely at from 37s to 40s. per todd of 28lbs. Fat sheep are in abundance, and lower in price. Beef scarce, and consequently, the trade brisk, at full 6d. per pound, sinking the offal.

The trade for wheat and oats, considering the prospect, and a harvest three weeks later than for years past, does not rule so speculatively as might be anticipated, though it is tolerably steady, at 48s. to 54s. for wheat, and 20s. to 24s. per quarter for oats. In barley nothing doing. What wheat remains in stock will not be thrashed out until nearer harvest, as it is in the hands of those farmers who can wait for coming events.—*June 22.*

### HOP INTELLIGENCE.

(FROM THE MAIDSTONE GAZETTE.)

MAIDSTONE.—We are sorry to say that the improvement of the last week has not equalled our anticipations, or the progress of the week before; excepting in the "crack" grounds of this immediate neighbourhood, the Farleighs, Barming, &c. The thunder-storm and heavy showers of Sunday, however, must do great good, although their effects are not yet perceptible. In many other districts we find they are much improved.

EAST SUTTON.—In some of the low grounds the mould has made its appearance. Mr. Payne of this place has a piece of land, which for the last two years has been subject to this discouraging disease. On finding that, last week, it again made its appearance, he exhibited a degree of decision, worthy of "the great Captain" himself. Although the vines had been tied, and were several feet up the poles, he immediately had them all grubbed up, and the field re-planted with something else.

GOUDHURST, HAWKHURST, ROBERTSBRIDGE, SANDHURST, NORTHAM, BECKLEY, AND BENENDEN.—The bine has much improved in these districts, and now looking healthy and well. The late showers may be expected to effect a still further improvement.

TICEHURST.—In this and the surrounding parishes, there is scarcely any fly, and the bine improved considerably during the past week.

CANTERBURY.—Since our last report, the fly has made its appearance in many grounds, but without materially altering the favorable appearance of the plantations.

HORSMONDEN, YALDING, AND BRENCHELY.—The vines on these parishes, during the past week, have made great progress; but it is thought that the rain of Sunday was by no means beneficial to them.

HOPS IN FRANCE.—BAILLIFUL, June 15.—The late fine weather has been very favorable to the growth of our hops, and prices are consequently tending towards a decline. The present quotation is 72½*f.* to 77½*f.* per 50 kilogrammes, equal to 58s. 2d. to 62s. per English hundred weight. At Alost, the price is 48*f.* to 53*f.* answering to 39s. 2d. to 42s. 4d. per English cwt. At Poperingue the currency is 47*f.* to 50½*f.*, or 37s. 7d. to 44s. 4d. per cwt.

## AGRICULTURAL INTELLIGENCE, FAIRS, &amp;c.

**MAIDSTONE FAIR.**—The fair was very badly supplied with stock; there were plenty of buyers for lean stock, which consequently fetched an advanced price. Horses were numerous, but no buyers.

At **HAVERFORDWEST FAIR** there was a good show of black cattle and horses, both of which were quickly bought up at considerably advanced prices.

**BOROUGHBRIDGE FAIR.**—The show of good horses was only thin, which made them command high prices. Horses of an inferior description were more numerous and met with a ready sale. In short, good horses of every kind were never known to fetch such high prices as they did at this fair.

**ABINGDON FAIR** was pretty well supplied with horses, cows, and sheep; the trade was tolerably brisk for superior things, while the inferior were, as usual, more difficult to dispose of. Colts were not so numerous as they generally are, while the show of cattle we thought of rather a higher order than we often see at June Fairs. Hacks were in abundance. Lambs were in demand—1 pen fetched one guinea per head.

**TARBOLTON JUNE CATTLE FAIR.**—There was an average show of stock, and in consequence of the growth of pasture from the late rains, the demand was a good deal brisker than at recent fairs in the district. Good cows brought from 10*l* to 14*l*; and two-year old queys from 4*l* to 6*l*. A very fine two-year old quey in calf, was sold for 12*l* sterling.—As usual, there was a good many bulls, which were nearly all sold.

At **DUNSMUIR TRYST** there was a fair show of cattle, for which the sellers demanded high prices, which caused a stiff sale; but ultimately the parties came to an understanding, at prices nearly similar to those at Trinity Muir last week. The best sorts of cattle were nearly all sold; but small stirks stood long, and a good part remained unsold. The best quality of fat brought from 5s 10d to 6s 3d per imperial stone. Calving cows sold briskly at nearly the same money as fat.

**KEITH MARKET.**—There were about 4,000 cattle on the market green on Wednesday last, and a number of dealers from all parts of the country were present. The demand for lean cattle was dull, but fat stock readily obtained purchasers. A lot of well-fed four-year olds, fit for the London market, were sold at 11*l* a-head; and a lot of that age, belonging to Mr. Findlater, Balveny, which were of a superior description, sold at 16*l*.—About 50 three-year olds, in good condition, were sold by one dealer, at a price averaging about 9*l* 10s a head. Mr. Burgess of Phoness sold 14 very fine stots, also three-year olds, at 10*l* a head; and Mr. Gauld of Parkhall sold a very superior lot, of the same age, so high as 13*l*. Generally, however, the prices obtained for stock of this age averaged from 7*l* to 10*l* a head. For good two-year old stots from 6*l* to 8*l* were readily obtained. Several lots of three-year old queys were sold at 7*l*; and others of more weight brought from 8*l* to 9*l*.—Two-year old queys sold at from 4*l* to 6*l* a head. Towards the afternoon there was an excellent show of horses on the green. Good draught horses brought high prices—say from 25*l* to 30*l*, and one very superior animal was sold for 35*l*. There was a great number of good roadsters shown, the prices of which varied, according to quality, from 14 to 30 guineas.—There was an extraordinary demand for ponies, and the few good ones that were shown were readily bought up, at very high prices. Upon the whole this market is said to have been extremely favourable to the sellers, as very few of the black cattle in good condition were left unsold.

**NOTTINGHAMSHIRE.**—This month was ushered in with cold north winds and frosty nights, which continued until about the fifth or sixth; the vegetable world wearing a most drooping aspect

from want of rain and warm weather. Some farmers had already commenced mowing—in particular situations—the drought sooner retarding vegetation than promoting it. The wind then veered round to the south, and south-west, accompanied with thunder and heavy rains, (which however fell partially) but came too late for the spring seed crops, which are found to be very light. The weather continued hot and with but little rain until about the fifteenth or sixteenth, since then we have had thunder and heavy rain; but speaking generally, the ground has not been perfectly saturated. There is great scarcity of grass—the effect of the drought—the mow crops are certain to fall very light. Wheat is looking very healthy, the greatest complaints being a want of root; still, if the weather continues favourable it may prove a yielding crop. Beans have suffered generally from the want of rain. Early sown barley and oats are looking tolerably well, but those which were sown later have suffered severely from the dryness of the season. The fields appear very irregular in their growth, and patchy, one part appearing as though sown later than another. Dills this year have proved a very abundant crop, and the farmers must now have learned to estimate the value of them, there being such a scarcity of grass, from the dryness of the weather. The lucerne was a fine crop, and has proved very beneficial to the farmers; but I think they do not know the full value of it, or it would be more generally cultivated. The Swedish turnip plants are generally looking extremely well, whilst the white turnip plants are a little affected by the fly, but if the rain continues are likely to be a good crop. The hop bine is looking healthy, being free from filth. The Corn market to-day, June 23rd, at Mansfield was very dull; our market, may now properly be termed a weather market. S. P. G.

**DERBYSHIRE.**—Immediately after my last report the last week in May and the commencement of June, we had very cold weather, frosty nights, accompanied with sharp north winds, without rain; we suffered very much, particularly on the limestone lands. About the end of the first week in this month we had a change of weather, the wind then turning and blowing from the south, accompanied with thunder and showers. We had then hot dry weather until after the end of the second week. Since then we have had a good quantity of rain, but still not sufficient. The wheat crop towards the south of the county is looking tolerably well, much better than towards the north, but still there is a scarcity of root throughout the county. Oats and barley in the south of the county are looking very unkind from the dry weather. Lentils have proved a good crop, and from the extreme dryness of the season are proving very serviceable, and the farmer now sufficiently appreciates them. Upon the rocky parts of the county there is a scarcity of grass, by the river sides and on the lower lands there is a fair quantity, but generally speaking there is a great scarcity. The artificial grasses are falling very light; the natural grasses if the weather proves favourable, I think will prove a better crop. The corn market at Alfreton to-day, 24th June, was rather depressed, there was very little doing; but few sales being effected, the farmers holding firm at last week's prices.—24th June. S. P. G.

## COW CABBAGE.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—The accompanying letter we received this morning, and as it contains information with which the public should be made early acquainted, allow us to call your attention to it, and to request that you will give it insertion in your next publication.

Sir, we are

Your most obedt. servants,  
CORMACK, SON, & OLIVER.

New Cross, June 24, 1836.

*Peterboro', 24th of June, 1836.*

GENTLEMEN,—Having seen a paragraph this afternoon in a London newspaper inviting gentlemen and agriculturists to inspect a specimen of the Cow Cabbage, or Casarean Cole, at the Bedford Conservatory, I trust it will not be uninteresting to you to have an account of the *thing* which is making such a blaze in the agricultural world, by the name of the Casarean Waterloo Cow Cabbage, and now exhibiting at the Perfumer's by Mr. Fullard.

Mr. Fullard is a farmer, living, when at home, near ten miles from Peterboro', in Thorney Fen. About three or four years ago, a gentleman of Peterboro' asked me to get him the Casarean Kale he had heard so highly spoken of, and I procured an ounce of it from a respectable London house, and he took a part, but made nothing of it; a part, however, was sold to a Mr. Whych, of Portland, eleven miles from hence, with whom it succeeded tolerably well, and Mr. Ullit, I believe his son-in-law, raised about five plants also, and they are the plants now exhibiting in London. The produce from them was 3lbs of seed, which he sold to Mr. Fullard for 7l. 10s., and which is the very identical seed he, Mr. Fullard, is creating such a sensation in London and all parts of the country. This account you may rely upon, being correct, as I had an interview with Mr. Ullit a fortnight ago on the subject, when I gained the particulars of it from himself. I wrote last week to the London seedsman who sent me the seed, and I had their answer on Sunday morning, stating, that the description I had given them of the Waterloo Cabbage man afforded them a rich treat, inasmuch as a more complete agricultural hoax had never been palmed on the gullibility of John Bull. You may make what use you please of this letter, but I think one should give publicity to these proceedings,

for I assure you it is really a fine piece of ridicule in the neighbourhood where he resides, and I have every reason to suppose that Mr. Fullard never saw the plants while growing, but I feel satisfied you will see at once that the seed in question is nothing more than the Casarean Cole or Jersey Kale.

Gentlemen, I am, Your's respectfully,  
Messrs. Cormack, Son, & Oliver. JOHN WHITE.

## REVIEW OF THE HOP TRADE.

JUNE.

This month came in with a considerable demand for Hops for the trade, as well as speculation; the first week we continued to experience cold easterly winds, with frosty nights, as in April and May, and the bine then looked very weakly and unpromising. The duty was estimated at 150m. About the 10th of the month the wind shifted round to the south-west, and we had warm nights with showers; this still continues, and it is surprising the good effect it has already had on the plant, more particularly on the strong lands throughout Mid Kent.

Some fly have appeared, but not to any alarming extent; the wind continuing rather too strong for their remaining long on the plant. We are in hopes they will leave us without further mischief. Mould is talked of, but it is early days for that destructive ravager. We presume it is merely anticipated by the large holders of stock, certainly it may be found, but it is principally in the hedges at present.

The estimated duty is now quoted from 200 to 250m. with every disposition to advance higher.

The price (as might be expected with the favourable appearance of the coming crop), has fallen considerably, fully 15 per cent upon the quotations in May, and at present the market is very unsettled, some of the holders taking alarm, sell at even a greater reduction than this.

## PRESENT PRICES.

	Per Cwt.	£	s.	£	s.
East Kent, Pockets, .....	good	4	10	fine	5 12
	Bags .....	4	4		5 0
Mid. Kent, Pockets, fine, .....		3	15		5 5
	Bags .....	3	3		4 10
Weald of Kent, Pockets, .....		3	10		4 16
Sussex, Pockets, .....		3	3		4 10
Yearlings .....		2	10		3 10
Old olds .....		1	1		2 10

## REVIEW OF THE CORN TRADE

DURING THE MONTH OF JUNE.

The mild cloudy weather experienced during the latter part of June, accompanied with heavy showers of rain, have been extremely favourable to the growth of vegetation; the reports from various counties continue to represent the appearances of Barley as luxuriant, and in some districts holding forth the promise of an exuberant produce. Oats look also well, but in some instances are thin, and the straw likely to be extremely short. The accounts of wheat are, however, upon the whole, less satisfactory; for though the plant has made rapid progress, yet there are many situations where the stems are shooting up spindly and weak, and a much less number of straws attached to the root than usual; though, on the other hand, it may be said that there is time for the head still to fill well, and yield a full

even grain. The straw also in many cases will be extremely short. Beans and peas are extremely vigorous and healthy, and if the former pod satisfactorily, will prove an abundant crop.

In Scotland, the prevalence of cold, frosty, ungenial weather, particularly during the nights of the month of May, has created radically more injury to the grain, than the sunny weather now experienced can ameliorate, and that the produce, under any circumstances, will be below an average return. Wheat, as well as barley and oats, are represented as progressing favourably, but that the harvest will be much later than usual, and therefore the quality, and even quantity of the grain secured, will be rendered the more precarious, especially in the more northern divisions of the kingdom. Beans and peas look well; but



potatoes have in many instances missed, and apprehensions are being entertained for the result of the crop of this valuable esculent, which every year is becoming more indispensable to the country, having entered in such an extended ratio into general consumption; and in many cases, when calculating the consumption of grain in the kingdom, due estimation is not made for the extensive substitution of the article in the place of flour and meal, especially as regards England and Scotland.

In Ireland, the drying winds and chilly atmosphere have been succeeded by a milder temperature and beneficial rains, which have materially improved the aspect of the fields; wheat has much improved, but is still reckoned deficient, which in addition to the diminished breadth sown, will render the produce below an average growth. Barley and oats require more wet, and are extremely backward. The drought has been detrimental to the growth of flax, which appears thin and stunted, and unless favoured by a succession of warm showers, will, it is to be feared, prove a deficient crop, though the additional quantity under cultivation this season, will render the produce at all events more than equivalent to the previous year. Reports are beginning to be made of a partial failure in the potato crop, but it is to be hoped that the miss will not be so general as to affect the aggregate average.

Much interest is still experienced as to the currencies of grain, and many queries propounded as to their future tendency; the subject is one on which it is extremely difficult to offer an opinion at all likely to be generally coincided in, as it is liable to bias in the minds of speculators, holders, and vendors to a considerable extent: the only attempt, therefore, that could be made would be to offer a range, which might be reasonably expected under a certain set of circumstances, avoiding extremes and following the classic advice, "in medio tutissimus ibis," recollecting that all arguments or opinions from statistical accounts or grounded on former occurrences connected with the grain market, must, in a trade which assumes such *Protus* shapes, set at defiance all the calculative powers of theory and practice, as to the eventual results, more especially in a climate liable to such constant vicissitudes. Past experience proves, and in many instances too fatally, that where collateral circumstances have induced speculative enterprise, and seemed to combine in ensuring success, a sudden turn or event has occurred, which rendered nugatory all theoretical speculation however previously well defined.—With a succession of favourable weather, and the combined powerful effects of heat and moisture, many holders may be induced to send their samples more freely to market, and a tendency may thus ensue towards a reduction in the prevailing currencies, and white wheat may recede to 52s and 54s, and red to 46s and 48s, though below this range there does not appear at present much reason to anticipate a reduction. Sanguine speculators on the other hand are entertaining themselves with the notion that white wheat may arrive at 70s. The farmers, however, who consult their ulterior interests, should be far from wishing such a rate of currency to prevail, particularly if they entertain the belief, that the present code of laws regarding grain are the most beneficial for their protection. If 70s should be attained, the market will be inundated with foreign wheat and re-action will take place, more detrimental to their future condition than the temporary profits realized by the advance; at the same time that so high a range of the quotations might prove instrumental in favouring a revi-

sion of the Corn Laws, by the people demanding "with one fell swoop" a permanent or *ad valorem* duty, which would be determined from a lower rate than under ordinary circumstances, the farmers might otherwise have confidently expected to have obtained. Prices of barley will, in all probability, maintain their existing currencies, and are liable slightly to improve, say 1s to 2s per qr on the averages, making the duty 12s 4d, or as an extreme case 10s 10d per qr, when the admission of the foreign article will check all chance of additional enhancement, more particularly as the promise of the forthcoming crop is luxuriant. The state of the oat market, with the favourable character of the weather and the reduction of the duties to 10s 9d, has materially lessened the chances of prices attaining a higher range this season unless some unforeseen casualty occurs to the crops; as the extensive supplies latterly received from Ireland and the foreign oats entered for the consumption, in addition to the stocks still remaining in the Sister Isle, which the assistance of the Agricultural Banks have enabled holders to retain. Beans and peas, with the appearance of the crops more than usually productive, and the influx of foreign supplies now daily arriving, and being entered on the market, will cause a gradual decline in both articles until the duties advance sufficiently high to prevent the introduction of foreign samples, when the new crop will, in all probability, be at hand for the consumption.

At the very commencement of the month of June the absence of rain and cold chilly weather caused an advance of 2s to 3s per qr; warm showers, however, and sunny atmosphere succeeding this ungenial state of the temperature, checked speculative feeling, and millers confined their operations to their immediate wants; at the same time the supplies continued moderate, and though slightly exceeding the demands, did not allow sufficient accumulation of stock to depress materially the currencies; and, as the bulk of the wheat on hand in the country is held by farmers and landed proprietors capable of retaining their stores, and who generally from the appearance of the crops on the land entertain a favourable opinion towards old wheat, the markets are not likely to have any influxes of the article to an extent to force down the quotations; and though prices have receded from their extreme rates, yet they are 1s higher than at the close of May, with a firmness in the trade, which will require large receipts to weaken.

With the exception of the shipment of a few hundred quarters of bonded wheat to Cherbourg and Portugal, there have been few purchases for actual export. Holders however have advanced their demands, and the finest high mixed Danzig and Königsberg wheats are not to be obtained under 36s to 38s 1d; good high mixed, 32s to 35s; red mixed, 30s to 32s; Mecklenburg, Pomeranian, and Upper Elbe qualities 28s to 32s. Extensive purchases have been effected at Königsberg, Danzig and the whole lower line of the Baltic, on British account with the view of warehousing in *loco*, prices varying at the two first ports from 24s to 34s, and even higher, according to quality; at Stettin 27s to 29s has been obtained; at Mecklenburg 26s to 29s, and Holstein 25s to 28s; at Hamburg 27s to 28s 6d.

During the first week of June, the prices of ship's Flour receded 1s to 2s from the highest rates of the previous month, since, which, though the trade has been languid, owing to the wharfs being tolerably well filled, and bakers being unwilling during the warm weather to increase their stocks beyond their immediate wants, prices have not sustained any further depression; town made qualities remaining

nominally unaltered. Bonded flour has continued to meet attention, and some large parcels have been shipped, principally to the West Indies, Mauritius, Hobart Town and Cape of Good Hope, and the currencies of the month of May have been fully supported. There have been several arrivals of flour from the Elbe and Baltic, principally however, from Danzig, the quality of which proves superior, especially WITTS' brands, which appear likely to attain a pre-eminent station on the market as to quality, and become the favoured mark of speculators; the samples are held at 22s to 23s per barrel.

The averages have continued to exhibit the gradual improvement in the value of the different species of grain: wheat has advanced on the aggregate average 1s 9d; 6d on barley, 1s 8d on oats, 2s 10d on beans, and 1s 1d on peas, reducing the duties on wheat, 3s, on barley 1s 6d, but on this article only for one week, having since receded from 12s 4d to 13s 10d; on oats 3s; beans 4s 6d, and peas 3s. With the exception of barley and wheat, there appears little probability of the duties declining lower on any other article this season, and on the former the extremest reduction will not exceed 10s 10d, or more likely 12s 4d.

The arrivals of barley have been less than even the limited supplies of the preceding month, and have not exceeded 11,900 qrs. The malting season having closed, the sale has been confined for distilling and grinding barley, and as the demand has more than kept pace with the receipts, prices have improved, distilling qualities having realized 33s to 35s, and grinding descriptions 32s, Irish samples being worth 30s. The exhaustion of the stocks of the article in this country, has induced a speculative feeling in favour of foreign qualities, and several parcels have been bought for English account at 17s to 19s per qr; bonded samples having advanced 1s to 2s per qr, the better sorts being held at 22s. The duty which receded for one week to 12s 4d induced the entry of a few hundred qrs, but relapsing again to 13s 10d, the further entry was checked, though there is little doubt the duty will again recede to 12s 4d, and the possibility exists of its attaining 10s 10d on the approach of harvest.

The receipts of malt have been less by 6,000 qrs than those during the month of May. The brewers having been well in stock, has caused the extent of business transacting in the article to be extremely limited, prices however remaining nominally unaltered.

An increase the past month is exhibited in oats, of 58,017 qrs: the augmentation from Ireland having been 51,000 qrs, and from Scotland, 11,000 qrs, but in the imports from our own coast there has been a falling off of 4,100 qrs. In the early part of June the supplies not being adequate to the consumption, holders were enabled to realize at an advance of 1s to 1s 6d per qr; the sales however were principally confined to needy customers; the wholesale dealers and consumers, as the month advanced, anticipating large supplies from Ireland, refrained from purchasing. About the 13th the wind having at length become favourable caused the simultaneous arrival of various vessels, and the influx of the article was to a greater extent within the time, than had been expected; factors, however, willing to hold out, would not submit to a greater reduction than 6d to 1s per qr, which purchasers not acceding to, the amount of business was less considerable than it would otherwise have been. Further supplies, however, being known to be on their voyage, prevented dealers from acceding to the demands; in addition to which the advance of the aggregate average of the

kingdom to 24s, and the consequent decline of the duty to 10s 9d, enabled the holders of fresh arrived foreign oats to offer them free upon the market which had the effect of checking the trade, and preventing purchasers from coming forward, until they could ascertain to what extent the admission of oats was likely to be carried; factors therefore had no option but to accede to a reduction of fully 1s 6d per qr, and even at this decline the business was only limited, making the trade for Irish 1s 6d to 2s per qr lower during June, for Scotch potato about 1s, English having fluctuated, but maintaining the same rates at the close as at the beginning of the month. Several sales of bonded oats had been made at 15s for Danish feed, and 14s for Archangel quality; Dutch brew 16s to 18s; fine 19s. The offers from Ireland advanced to 13s and 14s 6d, but have latterly receded, and Limerick were to be obtained at 12s 9d to 13s 6d; Waterford 14s, being a decline of 6d to 1s per barrel.

Beans in the beginning of the month hung on heavy, owing to the prospect of the reduction of the duties, which, as they gradually took place, rendered the article difficult of disposal, and when foreign qualities were admissible at a duty of 11s, the number of parcels pressing on the market had the effect of forcing prices down 3s to 4s per qr, and the trade heavy at this decline, as the appearance of the crop is highly promising. The supply of foreign beans during the month have amounted to about 6,100 qrs, and on the 5th of June, there were in bond, in London, 5,299 quarters.

The same remarks as the above apply to peas, white qualities having receded 5s to 6s, and maple and grey, 2s to 3s, with a very limited demand; the duty remaining as low as 9s 6d per qr. The quantity in bond in London, at the commencement of the month was, 5,736 qrs, and during June we have received about 6,100 qrs.

During the month of JUNE the following quantities of grain and flour have arrived in the port of London.

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats. qrs.
English .....	33,574	5,930	23,107	16,686
Scotch .....	311	4,364	454	21,560
Irish .....	...	1,639	568	105,367
Total in June.	33,885	11,933	24,129	142,603
Total in May.	27,217	15,451	30,876	85,576
Foreign in June.	5,481	2,180	...	8,209
	Beans. qrs.	Peas. qrs.	Linseed. qrs.	Flour. sacks.
English .....	40,67	473	2	38,262
Scotch .....	31	56	...	180
Irish .....	...	...	...	200
Total in June .	4,098	529	2	38,742
Total in May .	5,027	723	17	41,625
Foreign in June .	6,156	61,61	22,013	brls. 7,694

By the latest advices from VAN DIEMEN'S LAND, it appears that heavy rains had fallen, and laid much of the Wheat, and that smut prevailed to a considerable extent. About 2,000 qrs of Wheat had been received from the East Indies, but prices remained steady, at 6s to 7s per bushel. English barley 5s 6d per ditto. At Launceston wheat was noted at the same rates, and Barley, 5s to 6s 6d. The new crop which was in progress of being secured, was represented as thin on the ground, and the ears small, yet in consequence of the increased quantity of the land sown this year, which was estimated at 3,767 acres, there will be several thousand bushels left for export; in addition it is reckoned there are 1,800 acres more, cultivated with barley, and 250 acres with oats.

At SYDNEY, the continued drought up to harvest had rendered the wheats thin and unproductive, and all kinds of fodder were extremely dear. Wheat was still maintaining high prices, notwithstanding the harvest, being noted at 10s to 12s 6d per bushel for the finer qualities, and 30s per 100lbs for flour. Considerable imports of wheat had been received from Hobart Town, Launceston, and the East Indies.

In CANADA the weather had been very changeable, suddenly altering from heat to cold, but vegetation and sowing had not been much impeded; little difference existing the present year as to their progress compared with other seasons. The water communications with Upper Canada had opened, and supplies had been received. At MONTREAL some Baltic red fine wheat had been sold in Auction at 5s 6d, and Archangel, at 5s 3d per 60lbs. Flour was steady, at 29s 6d to 30s per barrel.

In FRANCE the winds which have prevailed have worked much good to the growing crops; Wheat however is variously reported, many statements tending to prove that the thinness of the plant prevents the possibility of the weather effecting much improvement; and that the produce will be below an average, even under the most favourable circumstances. Summer grain has materially benefitted from the change in the weather. At the ports of *Chorbourg, Gramville, St. Malo, St. Brieux, Brest, Lorient*, in fact at all the ports from the Department of Calvados and Cape Barfleur to the river Vilaine in the Bay of Biscay, the duties have further receded, owing to the increased ratio of the averages; and wheat in British vessels is admissible at a duty of only 3 francs 50 cents per hectolitre, or 2 francs 25 cents., if in French bottoms, with the addition of 10 per cent., making the duties per qr. in the former case about 8s 3d, and in the latter 5s 3d per qr. or thereabouts, according to the exchange. At PARIS, the tendency in the quotations was to decline, and the trade ruling dull; at many markets in the Northern and Western Departments, however the extensive shipments to the Southern parts of the Kingdom had nearly exhausted the stocks in the more immediate circle of the ports; and the receipts therefore, to meet the consumption were limited, and prices supported.

At St. PETERSBURG, Rye was in request, but the stocks too limited and prices too high to admit of the execution of orders. The reports from the different Governments were, with few exceptions, favourable for Winter sown corn, but natural and artificial feeds were very scarce owing to the cold and drought. At RIGA, Courland wheat remained nominal at 23s to 26s 10d; barley, however, met purchasers at 17s 4d to 18s 10d. Oats were noted at 12s 1d to 13s 1d. A few parcels of crushing linseed had been sold at 43s 6d to 49s. At KÖNIGSBERG, the dull accounts from London had made no impression on the market, neither holders nor farmers being willing to accept lower terms; high mixed being held at 32s to 33s; good new mixed, 25s to 26s; middling, 23s to 24s. Barley scarce at 15s to 16s; oats in active demand at 10s to 12s as in quality. Rye had been much in request for Norway, Danzig, Bremen, and Belgium and prices had advanced from 15s to 17s. In the advices received from the above City are some judicious and pertinent observations respecting the purchases of wheat; speculators devoid of local knowledge regarding Königsberg and Danzig, forgetting "that there is nought in a name," prefer transmitting orders to the latter City, and purchasing an article, which very likely has been already shipped from Königsberg; and as prices, owing to the celebrity of "Danzig wheat," range higher at this market, they

pay frequently 3s to 4s per qr. more money for their fancy and deficiency in the knowledge of localities; whereas, no wheat is grown near either port, but is transported from Poland; the only difference existing being that the craft laden with one parcel floats down the river *Vistula*, and the other down the *Pregel*. At Danzig a good deal of animation has pervaded the market owing to the continued orders from this country, and some purchases made on French account: fine white wheat has been bought at 34s to 35s; fine high mixed, 31s to 32s; best mixed new, 27s 7d to 28s 6d; inferior, 24s to 25s; flour, first quality, 18s; latterly however, increased supplies and less inclination to purchase, had reduced the quotations of wheat fully 1s to 2s per qr, and even more on some qualities. An active demand had prevailed for rye, which had advanced from 15s to 18s; and large purchases had been effected at the intermediate rates. Considerable purchases also of oats had been effected, principally at Elbing at 10s to 11s 6d, but prices receded to 10s and 10s 6d. Rape plants had suffered from insects, but the weather generally was favourable for vegetation. At STETTIN the currencies for Marks wheat remain steady at 28s to 29s; rapeseed on delivery of the new crop was held at 32l. At ROSTOCK, as well as WISMAR, the prices of wheat, owing to the continued demand for England, had further advanced the quotations of the best samples, which were not to be obtained under 28s to 29s; oats, 13s to 14s; barley, 17s to 18s. At the former port, rye had improved in value, and was noted as high as 22s, in consequence principally of the unpromising appearance of the crops, which had been much injured by the cold weather. Oats were also represented as likely to be a short produce, and the large portion of the new rapeseed had been already sold on delivery. At KIEL as well as LUBECK holders were asking higher rates for their wheats, and rapeseed on delivery, 31l to 32l. At HAMBURG the trade was dull at the date of the last advices; several sales of wheat, however, had been effected the foregoing week at the top rates; quality weighing 62lbs to 63lbs was worth 28s 6d; other descriptions 27s to 27s 6d. Saale barley has been sold at 19s. In oats less doing, and Swedish and Danish might have been bought at 11s 9d, weighing 38lbs to 39lbs; black oats of 36lbs to 37lbs 11s 3d. New rapeseed deliverable at Hamburg had been sold on delivery at 31l, and on the Baltic at 30l 5s to 30l 12s 6d per last.

CURRENCY PER IMPERIAL MEASURE.

	BRITISH.		JUNE 1.		JULY 1.	
	s.	d.	s.	d.	s.	d.
Wheat, red, Essex, Kent, Suffolk.....	38	to 49	38	to 50	38	to 50
White.....	42	56	42	57	42	57
Norfolk, Lincolnshire and Yorkshire...	37	47	37	48	37	48
White, do. do.....	40	53	40	54	40	54
West Country Red.....	26	45	26	46	26	46
White, ditto.....	38	51	38	52	38	52
Northumberland and Berwickshire Red	35	40	35	42	35	42
White, ditto.....	37	49	37	50	37	50
Irish Red.....	—	—	—	—	—	—
Ditto White.....	—	—	—	—	—	—
Barley, Malting, new.....	32	35	32	35	32	35
Chevalier, new.....	35	38	35	36	35	36
Distilling.....	32	34	32	35	32	35
Grinding.....	27	31	27	32	27	32
Irish.....	25	30	25	30	25	30
Malt, Brown.....	44	52	44	52	44	52
Ditto, Chevalier.....	60	64	60	64	60	64
Ditto, Norfolk and Suffolk Pale.....	50	60	50	60	50	60
Ditto Ware.....	60	64	60	64	60	64
Peas, Hog and Grey.....	33	35	32	34	32	34
Maple.....	34	36	32	35	32	35
White Boilers.....	26	45	26	40	26	40
Beans, small.....	40	46	40	42	40	42
Harrow.....	38	44	38	40	38	40
Ticks.....	35	42	35	38	35	38
Mazagan.....	34	40	34	38	34	38

	JUNE 1.		JULY 1.	
	s.	s.	s.	s.
Oats, ENGLISH feed.....	23	25	23	25
Short small.....	25	27	25	27
Poland.....	23	27	24	27
Scoren, Common.....	24	26	24	26
Berwick, &c.....	24	27	24	27
Potatoe, &c.....	25	28	25	27
Irish, Feed.....	22s 0d to 23s 6d	21s 0d to 23s 6d		
Ditto Potatoe.....	24s 0d	26s 0d	22s 0d	24s 0d
Ditto Black.....	22s 0d	24s 0d	22s 0d	23s 0d

	PRICES OF FLOUR,					
	Per Sack of 280 lbs.		JUNE 1.		JULY 1.	
	s.	s.	s.	s.	s.	s.
Town-made.....	40	to 48	40	to 48		
Norfolk, Suffolk, Kent, and Essex.....	34	35	34	35		
Sussex and Hampshire.....	33	34	33	34		
Superfine.....	35	—	35	—		
Lincolnshire, Yorkshire, and Stockton.....	32	34	32	34		
Northumberland, Berwick, and Scotch.....	32	33	32	33		
Irish.....	34	36	33	35		
Extra.....	38	—	37	—		

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th June, 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat.	Barley.	Oats.	Rye.	
	bush.	qrs.	qrs.	qrs.	
Quantity imported....	8,855	86	6,728	..	
Do. entered for home consumption.....	621	60	97	..	
Do. remaining in warehouse.....	541,178	37,745	223,778	1,484	
	Peas.	Beans.	Maize.	Flour.	
	qrs.	qrs.	qrs.	cwts.	
Quantity imported....	7,971	22,587	..	29,257	
Do. entered for consumption.....	2,602	12	5	2,467	
Do. remaining in warehouse.....	16,096	37,495	684	206,709	

STOCK OF GRAIN AND CLOVERSEED IN BOND IN THE PORT OF LONDON ON THE 5TH JUNE.

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Cloversd.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
222,618	6,489	67,295	5,299	5,736	53,672	29,600
				Rye. — qrs		

IMPERIAL AVERAGES.

Week ending	Wheat.		Barley.		Oats.		Rye.		Beans.		Peas.	
	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	
13th May	49	3	33	2	23	1	32	4	38	9	10	
20th "	50	4	33	2	23	9	33	8	39	9	11	
27th "	49	10	32	9	23	8	35	16	39	11	13	
3rd June	49	1	32	10	22	4	32	7	39	11	10	
10th "	51	0	33	2	24	7	35	2	40	3	4	
17th "	51	1	32	1	24	5	34	10	39	7	4	
Aggregate Average of the six weeks which regulates the duty.....	50	2	32	11	24	0	34	3	39	8	4	
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London.....	36	8	13	10	10	9	18	3	11	0	9	
Do. on grain from British possessions out of Europe.....	5	0	2	6	2	6	3	0	3	0	3	
Foreign Flour, 2s 8d per 196lbs. British Possessions do. 3s per 196 lbs.												

WOOL MARKETS. BRITISH.

There has been several wool fairs in the past week, which have been well attended, but in consequence of the reduction of price the previous week in the York, and other markets, the north-country manufacturers and wool staplers have not been so brisk in their purchases; and the local buyers begin to feel the result of the two former years, viz., after buying the wool at the various fairs in June and July of the growers at liberal prices, have been obliged to submit to a loss of

1d, 2d, and in some, losses of 3d per lb, in August, September, and the Autumn months; and those who could not hold their stocks till the Spring, having suffered materially, are now beginning to see they have given too high prices, and seem disposed to make a stand for a reduction, which must take place to some extent considering the immense importation of all sorts of wool from nearly all parts of the world. The colonial wool will have the preference of all other wool, English wool being so much crossed for weight of carcase as well as weight of wool, there is hardly any pure breed of any kind.—June 27.

	LIVERPOOL.			
	Per lb.		WEEK ENDING JUNE 25.	
	s.	d.	s.	d.
Down Tegs.....	1	10	to 1	11
Half-bred do.....	1	16	1	11
Ewes and Wethers.....	1	8	1	9
Leicester Hogs.....	1	4	1	5
Do. Wethers.....	1	6	1	7
Blanket Wool.....	1	0	1	6
Flannel.....	1	3	1	9
Skin Combing.....	1	4	1	6

SCOTCH WOOL.—The public sales of foreign and colonial wools, which commenced yesterday, have collected an unusually large attendance of the trade. Wools of every description have met with ready sale at very firm prices, and Scotch wools have participated in the increased demand, as far as the limited stock would admit. We do not alter our quotations, but note an increased disposition to do business in every class of Scotch wools.

FOREIGN.—The public sale of wool to-day has commanded a larger attendance of dealers than any previous sale which has taken place in Liverpool. There was a large attendance not only of dealers from Yorkshire, but from all parts of the kingdom. The first sale consisted of 1,068 bales of New South Wales wool of favourite marks, the first lot of which brought 2s 10d per lb. This is an advance on the prices realized by the same marks last year of 2½d per lb. 148 bales of East India varied from 4d to 11½d per lb; 200 bales of Spanish were offered which brought full prices, as also 34 bales of German. Odessa, fine, 2s to 3s 6d; Portugal R., 1s 5d to 1s 7d; Portugal, low marks, 1s 0½d to 1s 2½d; Spanish R, 2s 6d to 2s 9d; Spanish, F.S, 2s 2d to 2s 4d; German fleeces, 2s 2d to 2s 6d; German assorted, 2s 6d to 2s 9d; German lambs, 2s 6d to 3s 6d; New South Wales, 2s 4d to 3s; Russian wool, 8½d to 9½d; Buenos Ayres, 4d to 5½d; Mogadore and Barbary, 4½d to 6d per lb. Import for the week, 1522 bales; previously this year, 11,687 ditto.

SCOTCH.

	Per Stone of 24 lbs.			
	JUNE 1.		JULY 1.	
	s.	d.	s.	d.
Laid Highland Wool, from.....	12	9	to 13	3
White Do.....	16	0	16	6
Laid Crossed Do.....	16	0	17	0
Washed Do.....	17	6	18	6
Laid Cheviots.....	19	6	21	6
Washed Do.....	26	0	28	0
White Do.....	32	0	34	0

FOREIGN.

JUNE 25.

About 1,950 bales of Colonial, South American, German, and Turkish wools have formed the supplies of the past week. The prices of last week's public sales—the whole of which were well attended—were—Van Diemen's Land wools from 1s 1d to 3s 1d; Australian, 1s 2d to 1s 10½d; Cape do, 1s 8d to 2s 2d; German do, 1s 9d to 2s 8d; and Russian do, 1s 8d to 2s 5d per lb; which prices, allowing for difference in quality, were about the same as were those of the city sales of the preceding week. But little business is doing, by private contract, at about last week's currency.

BONES.

Since our last there have passed the SOUND, or by ELSNORE, and the GREAT BELT, ships loaded with Bones, bound for Hull, 13; Grimby, 3; Newcastle, 6; Berwick, 2; Liverpool, 1; other parts of England, 8; Leith, 1; St. Andrews, 1; Dundee, 2; other parts of Scotland, 1.

# THE POLITICAL COMPANION

TO

## THE FARMER'S MAGAZINE.

[Our object in appending a Political Companion to the Farmer's Magazine, was to put our readers in possession of the opinions of the most talented journalists of the day, on *both* sides of any important question which might come under discussion. We trust, therefore, that in giving insertion to articles, which seem opposed to the agricultural interest, we shall not be considered as acquiescing in the doctrines therein advanced, our sole purpose being to enable our readers to estimate the truth or detect the fallacies of the arguments advanced.—ED. FARMER'S MAGAZINE.]

### BEEF-ROOT SUGAR.

(From the Mark Lane Express.)

Among the numerous schemes of the day, there is one to which the attention of Agriculturists is particularly invited by many of our cotemporaries, and pointed out by them as well calculated to repay for capital invested. We are fully satisfied that the intentions of the Journalists so recommending "THE UNITED KINGDOM BEET-ROOT SUGAR ASSOCIATION," are good, they are actuated by the praiseworthy motive of benefiting the agricultural community. The same spirit actuates us, and having the same object sincerely at heart, we feel it our duty to caution our readers from embarking their capital in any such scheme. The circumstances under which the manufacture of Sugar from Beet-root has grown up in France, are totally different from those in which England is now placed. During the long war between England and France, England, then mistress of the seas, prevented the importation of Colonial produce into France, and the latter being especially a sugar-consuming nation, was compelled to adopt a surer means of supplying herself with that indispensable article of consumption—Sugar. Attention was directed to the manufacture of Sugar from Beet-root, every encouragement was given to it, and the high price to which Sugar had attained operated in itself as a very large bounty for its production. Fostered by these adventitious circumstances, the growth of Beet-root, and the investment of a very large capital, and obtained to an extent which could not have been anticipated. At length a termination was put to the war, the ports of France were thrown open, and the Beet-root growers of France found themselves in competition with the Sugar-growers of the West Indies. As in all cases of forced production, they found themselves unable to compete with success, and the Government, unwilling to see a stop put to the manufacture of an article which employed so much capital and labour, imposed a protecting duty upon Colonial Sugars, by which means alone the Beet-root Sugar Manufacturers of France are at this moment enabled to produce the article. With all the advantages of low rents, cheap labor, the absence of tithes, and other imposts, and sugar at as high a price as it is in this country, the French Beet-root Sugar Manufacturers cannot make the article without a protecting duty. Supposing, for the sake of argument, that our superior system of husbandry could compensate for the above enumerated advantages pos-

essed by the French Agriculturists, and the duty now paid upon sugar in England would afford an equal protection to that which is paid on sugar imported into France; let us look for an instant at the probability of such protection being continued. Experience has shown, in a manner too conclusive to be doubted, that a reduction of duty upon articles of general consumption, very materially increases consumption. Of this the article of Coffee may be cited as a remarkable instance. The fact admitted, and the principle recognized by financiers of all parties, what security is there that the duties on East and West India Sugars may not be reduced. Such a reduction would operate at once as an encouragement to the growth of Colonial Sugars, and a discouragement to the manufacture of Beet-root Sugar. Moreover, it has been satisfactorily proved, however much it may answer the purposes of some parties to dispute the fact, that Sugar manufactured from Beet-root does not possess proportionably such a strong sweetening power as Colonial Sugar. As well might an attempt be made to grow vines in England, for the purpose of making British Wine, to supersede Wine produced in warmer climates. Besides, the scheme is bad in principle. The British Colonies form an integral part of the British Empire, and any attempt to produce, at an increased cost, in one part of the Empire, an article which can be procured cheaper from another part of the Empire—the growers there taking articles produced by us in return—is a positive error. Labour to the extent of the increased cost farming, would require ~~the~~ <sup>erecting</sup> this new branch of the necessary apparatus, which, seeing the uncertainty of the result, would be a speculation in which no practical farmer would be warranted in indulging. Moreover, it would completely change the system of husbandry adopted on the farm, be it what it may, and should the result not realize expectations, it would take several years to restore the land to its regular course of crops. But it may be said the Beet-root Sugar Association will purchase Beet-root from the farmer, and manufacture it upon their own premises. To this proposal there is also a serious objection:—The increase in the growth of green crops proves the benefit of the alternate system of husbandry, one of the most important advantages of which is the production of a larger supply of manure upon the farm. The demand for bone-manure, and all other articles for fertilizing the soil, which can be compressed into a small compass, furnishes additional evidence of the advantages found to

result from the obtaining manure, when freed from the heavy cost of carriage. To render the sale of Beet-root to the manufacturers of Sugar *off* the farm, beneficial to the farmer, the manure produced by cattle, consuming the refuse, must be brought back, and hence, except in some particular instances, will serious evil arise, not only from the expense of cartage, or other conveyance, but also from the temptation to sell Beet-root without returning such manure at all. From all the consideration we have been able to give this question, we feel convinced that no practical farmer can embark in the undertaking with any prospect of success, and "The United Kingdom Beet-root Sugar Association" will turn out a failure. If there be a body of capitalists, not farmers, who are disposed to try the experiment, let them become tenants of a farm of some two or three thousand acres, let them erect their apparatus on the premises, and manufacture the article on the spot where the Beet-root is grown, and if, after two or three years experience, the plan is found to answer, they will have received remuneration, in the shape of interest, for the outlay of their capital, and the British farmer will then be enabled to determine how far it may answer his purpose to adopt the plan. In the absence of such proof, we trust no *tenant* farmer will be lured into trying the experiment at his own risk. We by no means object to the establishment of the Company, we only desire to caution the man who has rent to pay, and who labors to subsist himself and family upon the fruits of his labor and industry, from being led astray by the speciousness of a scheme, which, from its having seemingly succeeded in France, would appear to be based upon a solid foundation.

### COUNTY RATES.

MOTION OF MR. HUME, TUESDAY, JUNE 21.

Mr. HUME presented petitions from the parish of Mary-la-bonne, from Stafford, and from Hertford, praying for an alteration in the present mode of assessing, levying, and controlling the expenditure of the county rates. The hon. member then proceeded in conformity with the motion he had given, to move for leave to bring in a bill to allow the rate-payers of counties to elect a certain number of persons to assess, levy, and expend the county rates, and to perform those duties having reference to the financial expenditure in quarter counties now exercised, as was not that check on the the people had a right to demand, and this arose from the inherent defects of the present system. The legislature had permitted the inhabitants of the corporate towns and cities to elect persons to have the control over the municipal taxation, and also to recommend magistrates, but the inhabitants of the counties had no privileges of the kind. The House was aware that the present mode of assessing and levying the county rates had been investigated before a committee up-stairs, and the report of that committee showed to what extent abuses prevailed in the present system. With a view to illustrate the want of control possessed by the county rate payers, the hon. member then read the following statement:—

Statement of the Population in the Cities and Boroughs of Great Britain, which send Members to Parliament, the greater number of which recommend their own Magistrates through their councillors. Also the Population of the Counties where the Magistrates are appointed by the Lord Lieutenants, the people having no choice or control.

### These recommend Magistrates.

	No. of Cities and Boro's.	Population at the Census of 1831.	No. of Electors enrolled 1832.
England .....	185	4,754,742	274,649
Wales .....	14	196,311	11,319
Scotland .....	76	865,007	31,322
Great Britain..	275	5,816,060	317,290

These have no power to recommend Magistrates, nor are they consulted.

	No. of Counties.	Population at the Census of 1831.	No. of Electors enrolled 1832.
England .....	40	8,336,263	344,564
Wales .....	12	609,871	25,815
Scotland .....	30	1,500,107	33,115
Great Britain..	82	10,446,241	403,494

Total population of Great Britain, 16,262,301; number of electors, 620,784; number of county magistrates, 18,984. If the population of the five metropolitan boroughs, 1,118,725, be deducted from the aggregate of represented cities and boroughs, amounting to 5,816,060, there will be only 4,697,335 actually with magistrates of their own choice. And if the population of the five boroughs be added to the county population of 10,446,241, the total will be 11,564,966; viz. the proportion in cities and boroughs, 28 88-100; proportion in counties, 71 12-100.

It appeared, then, that, in round numbers, there were 11,500,000 inhabitants of counties who had no share in the management or control over the expenditure of county rates, nor the right to appoint the county officers. One of the chief objects which he had in view in bringing forward the present measure, was to give to the inhabitants of counties the same power, as regarded the control over their local or municipal taxes, as was possessed by the inhabitants of corporate towns and cities. (*Hear, hear.*) It appeared by all the evidence taken before the committee that there were no regular rules as to the mode of assessing in various counties, and that it varied in each, and very often there were several methods pursued in the same county. Under these circumstances it was utterly impossible to tell on what principle the present system rested. It often happened in many counties that large masses of property were never assessed for the purpose of local taxation; and while the county rates that the persons who contributed to it did, they did not pay any thing to it. It was utterly impossible that justice could be done under such a system, when inequality prevailed to such an extent. This inequality prevailed to a great extent in the county of Middlesex, and also in all the parishes in the neighbourhood of the metropolis. As an illustration of this part of his argument, the hon. member read the following statement of the unequal assessments of the metropolitan districts to the police rate:

Acton contributed .....	two-thirds of rack rent.
Barnes .....	net value.
Battersea .....	full, or rack rent.
Christ Church, Surrey .....	two-thirds of ditto.
Clerkenwell .....	something less than rack rent.
Fulham .....	five-sixths of assessment.
Greenwich .....	four-fifths of rack rent.
Mill-end Old Town .....	three-fourths of assessment.
Paddington .....	four-fifths of ditto
Perge .....	2s 6d per £ on assessment.
Poplar .....	seven-tenths of rack rent.
Putney .....	between three quarters and seven-eighths of rack rent.
Ratcliff .....	seven-eighths of rack rent.
St. Anne, Limehouse .....	two-thirds small and four-fifths large houses.
St. Anne, Westminster ..	four-fifths.
St. Mary, Stratford, Bow.	seven-eighths.

His object was, as much as possible, to equalize the assessments, and to assimilate the mode of rating in different counties. At present there was not the slightest attention paid to the valuation, for the purpose of assessment. It appeared from the report of the committee of last year on county rates that the valuation was made in—

- 18 Counties on the Property-tax,
- 20 Do. on the actual value, or some proportion thereof,
- 13 Do. not known,
- 1 Do. on the 12th of Geo. III.

52 Counties.

The estimates for valuation various. Example:—By the 55 Geo. III., for equalising county-rates, a return was ordered and made. In Lancashire the difference was great.

Example,	1814.	1829.
In Liverpool .....	£584,687 ..	£751,126
In Cheetham .....	8,529 ..	24,090
In Preston ..	34,936 ..	80,984
In Bolton District .....	169,673 ..	320,467

In Lonsdale, South side..	172,501 ..	159,362
Do. North side .....	105,655 ..	123,003

All kinds of property should contribute equally to the county rates. Example of the inequality—

In Warwickshire land pays .....	£107,143
Do. mills and factories .....	2,720
In Leicestershire land pays .....	108,330
Do. mills and factories .....	783

Inequality:—Weymouth does not pay 6d to the county-rate of Dorset; 40 Inclosure Bills in Dorset, and these new lands pay no rate. Many places claim exemptions from county-rate.

Again, the county-rates had increased to an enormous extent within the last few years. As a proof of this he would refer the House to a statement made in the report of the House of Lords on this subject in 1834. In that report there was a comparative statement showing the increase that had taken place in a number of items of county expenditure since 1792. The hon. member then read the following paper:—

Summary of the Expenditure of the County Rates in England and Wales, in 1792 and 1832, or for such year as could be obtained nearest to such period, under the several heads, with the increase and decrease of each.

HEADS OF CHARGES.	Expenditure.		Net Increase	Increase per Cent.	
	1792	1832		Total	In England
1. Bridges, &c.....	4225	£...	£	..	..
2. Gaols, Houses of Correction, &c.....	92319	177245	84926	92	90
3. Prisoners, Maintenance of .....	45785	127297	81512	178	170
4. Prosecutions.....	34218	157119	122901	359	349
5. Constables.....	659	26688	26029	4338	4326
6. Professional.....	8990	31103	22113	248	24
7. Salaries.....	16315	51401	35086	215	205
8. Vagrants.....	16807	28723	11916	70	77
9. Lieutenantcy and Militia .....	16976	2116	14860	..	..
10. Coroners.....	8153	15254	7101	87	86
11. Incidental.....	17456	32931	15475	88	97
12. Miscellaneous, Printing, &c.....	15891	59062	43173	..	..
Total.....	£315806	£783442	£482495	148	148
Increase.....	£482,495				
Militia, deduct.....	14,860				
	£467,635				

£467,635 Increase 148 per cent.

He would proceed to examine a number of the items in this table. With reference to County Lunatic Asylums,

he could not help observing that, after the excellent mode in which the poor law bill had worked, that it would be better to place these asylums under the control of the commissioners of poor laws than leave them to the management at Quarter Sessions. He thought also that every prison in the country should be placed under the control of the crown, and under one uniform system of management, and that the expenses of the prisons should be defrayed by the public at large, and not out of the county rates. By such arrangement the expense would be materially diminished, and a much better system than prevailed at present would be adopted.

He would now proceed to lay before the House the statement which he had drawn up of the relative expense charged on the county rates, of prosecutions at assizes and prosecutions at sessions, in the year 1832, in thirteen counties in England and Wales, taken at random. The statement ran thus:—

County.	Number Tried.	Expense.		Expense per Head.		Number Tried.	Expense.		Expense per Head.		
		£. s. d.	£. s. d.	£. s. d.	£. s. d.						
Derby .....	43	832	19	0	19	80	£. s. d.	10	2	7	
Hants .....	104	1942	1	0	18	166	894	18	4	5	
Leicestershire .....	126	5044	16	3	40	2587	20612	0	0	9	
Lincolnshire .....	80	1833	1	4	22	101	954	17	10	7	
Leicester .....	95	1945	9	3	20	244	1701	3	5	6	
Norfolk .....	4	63	4	4	13	6	25	4	0	4	
Rutland .....	81	1663	4	4	20	110	1204	9	6	10	
Shropshire .....	128	1677	8	2	13	142	583	0	3	4	
Wiltshire .....	101	3707	6	5	32	382	4421	15	2	11	
Cheshire .....	71	1310	13	6	19	94	864	8	6	17	
Bucks .....	6	666	18	9	11	2	36	5	7	18	
Anglesey .....	11	553	0	9	50	2	240	12	1	10	
Denbigh .....	14	284	5	9	20	8	50	18	2	7	
Rathor .....	67	6-13	1654	6	0	24	17	0	8	3	
Average of 13 counties .....						308	7-13	2508	5	9	8

ASSIZES, 1832.

SESSIONS, 1832.

From this statement the House would at once perceive how superior would be the advantage, and how great the saving, of trying all cases before local courts sitting periodically. The statement of expenditure under the three foregoing heads, in five counties, taken at random in 1792 and 1832, stood thus:—

Counties.	Bridges.		Gaols.		Prosecutions	
	1792	1832	1792	1832	1792	1832
Berks .....	£ 7	£ 605	£ 448	£ 5015	£ 109	£ 1390
Surrey .....	370	290	1931	15402	217	3165
Stafford .....	298	5668	2601	7102	102	6006
Devon .....	1712	2110	3221	3603	153	2975
Suffolk .....	613	302	628	2973	9	3258
Total Expenditure in five Counties.	3000	8975	8819	34101	590	16704
Showing an increase per Cent.....		199		284		2371

Again, of late years the expense of county officers of all descriptions had been very much increased. The in-

crease per cent. in the salaries of various county officers, from 1792 to 1832, in five counties, taken at random, would appear from this table:—

	Trea- surers	Chap- lains.	Sur- geons.	Sur- veyors	Governors of Gaols.	Houses of Correction
Cornwall .....	355	59	..	185	1027	..
Devon .....	614	21	43	375	350	166
Hants .....	174	48	..	114	113	211
Leicester .....	56	..	..	47	79	84
Somerset .....	454	2	97	..	..	..

The duties of treasurer in particular might be most efficiently fulfilled by any banker in the county, and the whole expense of that officer saved. The hon. member proceeded to say that one great objection in the present system which he wished to see removed was the payment of officers by fees. He thought that in all cases the officers ought to be remunerated by a fixed salary. His great object was that the judicial and financial affairs of every county should be separated. The financial affairs should be committed to the management of a county board, composed of a certain number of persons elected by the rate-payers of the county, or their representatives, the existence of such board being limited, say to three years. This board should, immediately upon their powers and election being verified by the sheriff, proceed to select a chairman, and then to appoint the county officers, and the county magistrate should be permitted to exercise no interference whatever in levying the rates. (*Hear, hear.*) The judicial business of the county might for the present be left to the Lord-lieutenant, and the justices of the county. The adoption of such a plan as he had suggested would produce the good effect of dealing out equal justice to the county constituency with that which had been dealt out by the municipal bill to the town constituencies. (*Hear, hear.*) It might be said, "Why don't you make use of the new poor-law unions for your purpose?" But he had no hesitation in saying that he was decidedly opposed to such an idea. In the first place, unions were continually being formed from parts of one county and parts of another. Another there was, that the poor-law guardians were elected under a plurality of votes, and had a variable qualification at the will of the poor-law commissioners, who were appointed by the Crown, and thus county affairs might be influenced by the poor-law commissioners and by the Crown. Besides unions were not yet established over half the country, and his wish was to extend the now proposed measure over the whole country at once. The country was anxious for the change, and he trusted that there would be no opposition to its being brought into operation. He would therefore move for leave to bring in a "Bill to separate the financial from the judicial affairs of the counties in England and Wales, and to authorize the rate-payers in counties to choose representatives to form a county board for the management of the financial affairs of the county in England and Wales."

## POOR LAWS—IRELAND.

(From the Courier.)

The evidence taken by the Commissioners for inquiring into the state of the Irish poor, though it has not, perhaps, communicated any thing that was not previously known, has developed various features in the condition of the people, the existence of which would not have been generally believed on an inferior authority. One of the most important of these is the extreme difficulty experienced in most parts of the country in ejecting a tenant. The peasantry have, in fact, completely succeeded in many extensive districts in establishing themselves as a sort of co-proprietors of the soil. Though they should not be able to pay their rent, and even in cases where they hold only from year to year, still they have acquired

a kind of tenant right; and it is, generally speaking, impossible to eject them without having previously purchased this right, or, as it is called, the "good will" of the out-goer. This, which is as much an article of sale in three-fourths of Ireland, as Three per Cent. Consols are in London, is neither more nor less than a guarantee of quiet possession to the succeeding occupier; and any one who should venture to come into the place of an ousted tenant without having obtained this indispensable requisite, would be marked out for vengeance, and would most probably pay with his life, or the destruction of his property, for his unpardonable offence! It is not the ejected tenant merely who would feel himself aggrieved by such a proceeding. In a country like Ireland, where there are no poor rates, and where the few employments that are carried on are already glutted with labourers, land is indispensable to existence, ejection from the smallest patch seldom failing to entail the extremest privations on the party and his miserable family. Hence the desperate tenacity with which the cottiers cling to their little farms. And as the ruin that has overtaken one to day, may, if unavenged, equally overtake others tomorrow, they have seen that it was for their interest to combine together by force to protect the occupant. It is quite a mistake to suppose, as many do, that the Irish are wantonly savage and destructive. Nine-tenths of the outrages that have disgraced their country, have mostly been the result of calculation and foresight, not of recklessness and sudden impulse. They have grown out of the efforts of the peasantry to protect themselves from ruin—efforts forced upon them by the conduct of their landlords and of title proprietors, and by the want of any refuge for the destitute other than death or robbery.

It is extraordinary the landlords should not long since have opened their eyes to the inevitable consequences of this perilous state of things. Whether it may be still possible to put it down, and to restore to the landlords that controul over their estates that is essential to the introduction of good husbandry, and to the improvement of the country, is more than we can undertake to say. But the system is gaining strength every day; and it is quite obvious that if it be not speedily eradicated, it will end by making the peasants the proprietors of the soil. From inability to eject a tenant, except by his own consent, to inability to enforce payment of rent, there is but a short step; and should that step be taken, there would be an end to the present distribution of property in Ireland. The question then arises, how is this formidable difficulty to be obviated? Different answers have been and may be given to this question. But, for our part, we are clear that the establishment of poor laws, under proper conditions and limitations, would do more to break the cottier confederacy and to restore the empire of the law, and the right to dispose of property, than anything else that can be done. Were a refuge established for the destitute, ejection from a potatoe garden would cease to be followed, as at present, by the ruin of the ejected family. They would be provided for at the public expense, till an outlet could be found for them in the colonies, or in some way at home. The stern necessity that at present compels the peasantry to resist the law, being, in this way, obviated, they would learn to respect its authority; and that security that is the first and most indispensable condition to the growth of national prosperity, would be, for the first time, introduced into Ireland.



## TURF INTELLIGENCE.

Fortunately for the genuine sportsman, he is enabled to turn a deaf ear to the discordant jarring of political strife; and we make no doubt the Duke of Wellington feels much happier in the hunting field than in the senate: not that he shines brilliantly in either place perhaps: in regard to the latter we can speak to the point: the Duke is a very indifferent horseman; in the language of the school "he is no scratch over a country;" and therefore, when fox hounds can run with their heads up, his Grace is "no where." However, although we are no politicians, we are very glad to perceive that in these all reforming days, the proceedings of the turf are very likely to undergo that scrutinizing revision, which, in the name of justice, in the name of common or ordinary honesty, has been long most imperiously demanded. Let us not be misunderstood: the preceding remarks are not applicable to the owners of horses, or to the book men, but to those functionaries, who, in the form of Committee men and Collectors of "base lucre," contrive to pocket a considerable portion of the money which ought to be applied to very different purposes. One of the hebdomadal prints, a few weeks back, brought a direct charge of pecuniary malappropriation against the "self-appointed Committee for the Management of Epsom Races," and even accused the Baron de Teisseir of going snacks in the cross-diverted plunder. Is it possible that this gentleman, descended from an illustrious line of the ancient and high-minded Noblesse of France, can shelter himself from so serious a charge beneath the murky and suspicious cloak of a sulky and saturnine taciturnity? The Baron de Teisseir, the steward of one of the first meetings in the kingdom for a number of successive years, (ever since the recession of Mr. Maberly) cannot remain silent under the charge of pecuniary embezzlement! We know the Baron; we know that his powers of perception are remarkably acute, that his mind is uncommonly elastic and active, that he is altogether actuated by the most genuine impulses of human nature and the principles of honour; and therefore, although the Epsom Committee may have been guilty of swerving, we feel well assured this well descended member of society will emerge from the charge, like virgin gold from the crucible of the alchemist, brighter from having been subjected to the ordeal of investigation.

The Management of Ascot Races has been made the topic of public animadversion, though the charges have not been so systematic, so glaringly apparent, or so powerfully

expressed as those with which the Epsom Managers have been so directly and so very pointedly charged. Enough, however, has been stated, we should suppose, to induce Mr. Jemner to place before the eyes of the public, an unqualified statement of facts, which shall at once exculpate this highly respectable individual from the taint of mal-administration.

Fortunately for the welfare of the Turf, the revision of what may be called the common law of racing transactions requires no application either to the House of Lords or the House of Commons, and therefore the reform, or rather the removal of abuses, should be commenced with the least possible delay; an investigation of the conduct of many of the Turf official functionaries, we have long been well convinced, is highly necessary; and we earnestly recommend those who undertake the inquiry to divest themselves of all influential feeling except the legitimate anxiety of radical, unflinching, and unqualified reform. For the basis of their proceedings, let them first take into consideration the very great expense of bringing a horse upon the turf: let them recollect that more than one-half the foals which are dropped never come out as racers; that of those which reach the starting post, the cost is very heavy: the expense of the sire is very considerable, while a similar observation will apply to the rearing and treatment of the foal, in all the successive stages till it comes into the hands of the trainer, when, taking into consideration not only its keep, but saddlery, and the various items of expence, and the weekly amount will average two guineas, if not more. Therefore, on account of the enormous expence indispensable to bringing racers upon the course, let the reformer use the pruning hook unsparingly, and not only lop off the larger rotten branches, but also cut away the leech-like suckers of nomination fees, entrance money, as well as an endless variety of semi-swindling etceteras. Why, in the name of all that is just and reasonable, should two hundred pounds be deducted from the amount of the Derby and the Oaks? "To defray the expence of extra police," we are told: why is such a gross imposition allowed, such a system of plunder tolerated with the undeniable fact placed in juxta-position, that such an enormous sum as from fifteen hundred to two thousand pounds is collected on the Downs, from the Marquee man, the victuallers, and the other sources of pecuniary emolument which the ground presents? The great stakes just mentioned are raised by the owners of the

quadrupedal candidates who appear in the list, not one farthing is added from the multifarious and aggregately large pecuniary collection at which we have just glanced; but out of which, for racing purposes, the most contemptible trifle is annually appropriated, which, for the late meeting did not nearly amount to two hundred pounds! And yet what would Epsom be, and the business of Epsom amount to, without the races?

We would have the salaries of all the racing functionaries, such as the Clerk of the Course, the Judge, &c. paid from the "fund" and not filched from the owners of the horses; since, taking into consideration the very heavy expense necessarily incurred in breeding, rearing, and keeping these animals, they ought to come to the starting post free from those pecuniary imposts which are now so generally and so rapaciously levied upon them.

Goodwood races commence on the 27th (of July), but they excite very considerable attention at the present moment, on account of the importance necessarily attached to them. No establishment is conducted more liberally, or with a more masterly hand, than the races under consideration; they receive the influential support of the greater part of the leading nobility and persons of distinction in the kingdom; and, therefore, while they offer the richest Cup in the country for competition, the list contains various stakes of much more than ordinary amount: we give the following as a specimen: "The Goodwood Stakes of 25 sovs. each, 15 ft and 5 only if declared," &c., for which the following are the acceptances:—

	st. lb.		st. lb.
Rockingham, 6 yrs	9 12	Advocate, 4 yrs	7 3
Bran, 5 yrs	9 4	Burlington, 4 yrs	7 3
Hornsea, 4 yrs	9 1	Tauntonian, 4 yrs	7 3
Rush, 5 yrs	8 12	Felix, 4 yrs	7 3
Ascot, 4 yrs	8 7	Venison, 3 yrs	7 3
Bamfylde, 4 yrs	8 7	Jacob Faithful, 3 yr	7 3
Aurelius, 4 yrs	8 7	Ruinous, 4 yrs	6 13
Lucifer, 4 yrs	8 7	Tiber, 4 yrs	6 12
Knobstick, 4 yrs	8 5	Oak-apple, 4 yrs	6 12
Barney Bodkin, 6 yrs	8 0	Alfred, 3 yrs	6 12
Silenus, 4 yrs	8 0	Lady Anna, 3 yrs	6 12
Outcast, 4 yrs	8 0	Sepoy, 3 yrs	6 10
Luminary, 4 yrs	3 0	Toss-up, 3 yrs	6 7
Pussy, 5 yrs	7 12	Brookland, 3 yrs	6 4
Louisa, 5 yrs	7 12	Arbaces, 3 yrs	6 0
Changeling, aged	7 12	Taglioni, 3 yrs	6 0
Roadster, aged	7 12	Oberon, 3 yrs	5 12
Elis, 3 yrs	7 12	Brother to Delight, 3 yrs	5 12
Firman, aged	7 10	F by Emilius, out of Flush, 3 yrs	5 3
Whimsical (late Buccaneer), 5 yrs	7 7	F by Vanish, out of Fortuna, 3 yrs	5 3
Morpeth, 5 yrs	7 3		

If Goodwood be remarkable on account of the superior value of its Cup and Stakes, it is equally distinguished for the nicety with which the nags are weighted: thus, should the winner of the Derby start for the Goodwood Cup, 8lbs extra is placed upon him; while the second horse for the same stake would have to carry 3lbs extra. To the winner of the previous Gold Cup at Ascot, seven

extra pounds are allotted; and for the second place in the same race, the nag would have to carry 3lbs extra, &c. &c. The following is a list of the nominations for the Goodwood Cup, with the weights attached:—

Three year olds.		Hornsea, 8st 10lb
Bay Middleton, 7st 12lb		Aurelius, 8st 10lb
Jacob Faithful, 7st 4lb		Ainderby, 8st 10lb
Elis, 6st 13lb		Valentissimo, 8st 10lb
Alfred, 6st 13lb		Lucifer, 8st 10lb
Emmelina colt, 6st 13lb		Aristocrat, 8st 5lb
Sherry, 6st 13lb		Silenus, 8st 11b
Sepoy, 6st 10lb		Bamfylde, 8st 1lb
Mus, 6st 10lb		Five year olds.
Venison, 6st 10lb		Touchstone, 10st 2lb
Neva colt, 6st 10lb		Paris, 9st 4lb
Fair Jane, 6st 9lb		Louisa, 9st
Esmeralda, 6st 6lb		Bran, 8st 13lb
Weazle, 6st 6lb		Linda, 8st 2lb
Taglioni, 6st 6lb		Six year olds, and aged.
Khylan, 5st 6lb		Rockingham, 10st 1lb
Four year olds.		Diana, 8st 12lb
Elizondo, 9st 6lb		Firman, 8st 10lb
Luck's-all, 9st 1lb		Rupert, 7st 12lb
Knobstick, 9st 1lb		Eleanor, 7st 8lb
Sheet Anchor, 9st 1lb		Sophy, 7st 5lb
Felix, 9st 1lb		

The preceding list, it will be perceived, contains the names of most of the best horses in the country; and should Bay Middleton, Elis, Sheet Anchor, Touchstone, and Rockingham come out for it, expectation will be strained to its utmost tension. Touchstone beat Rockingham at Ascot (for the Cup) with the greatest ease; and, although the weight for Goodwood Cup is much against Touchstone, still, we are of opinion, that he would be more than a match for Rockingham. Bay Middleton must feel the extra 8lb which he earned by his triumph on Epsom Downs; and from the present complexion of this highly interesting race, it might be supposed that Elis or Sheet Anchor would be very likely to appear first to the winning post. However, it has been rumoured that neither Elis nor Touchstone will go to Goodwood; but we are seldom inclined to give implicit confidence to mere report relative to the turf; and, on the present occasion, can perceive no reason why Touchstone should absent himself from so important a stake—unless, indeed, his noble owner thinks it unwise to risk the well earned fame of this justly celebrated horse with seven pounds extra on his back. Such reasoning, however, will not apply to Elis, as the weight which is allotted to him (6st 13lb) cannot be deemed an overload, particularly if we bear in mind that at Newmarket he ran Bay Middleton to half a head, and would come against him with nearly a stone in his favour. If Elis be in good form he ought to make his appearance at Goodwood; but, as we have repeatedly remarked, a racer is always liable to fly to pieces; while Elis (a three-year-old) may not have recovered from the effects of his severe struggle against Bay Middleton.

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[VOL. V.

## THE PLATE.

A Description of "TOUCHSTONE," the subject of the Engraving, will be found at page 99.

### ON AGRICULTURAL CHEMISTRY.

BY THOMAS SHAPTER, M.D.

No. II.

"The deficiency among Agriculturists is not so much, perhaps, in experimental, as in scientific knowledge. It is without doubt true, that there may be, and indeed are, good practical farmers, who have but little pretensions to science: but it were too much to assert that even these, however good, might not become better; that they have reached the maximum of improvement; and already discovered the means of obtaining from Nature the utmost which it is in her power to bestow."

On the importance to the scientific farmer of an intimate knowledge of the composition of the soils he has to manage and to improve, and of the manures which he adds to them, there can be but one opinion; for, until such knowledge be acquired, he must remain in ignorance of those physical changes and new combinations which are effected by a judicious admixture of them, the results of whose operations he knows to be advantageous only by long and often dearly-bought experience.

In order to prosecute such an enquiry as the consideration of these subjects must entail, it may appear, perhaps, to the generality of readers, that the more natural course to be performed would be, first, to investigate the composition of the various soils, and afterwards, that of the manures; but I have here preferred commencing with the latter, as I think it will much simplify the subject by preventing repetition, and enabling me, when speaking of the composition of the soils, to allude to the manures which are applicable to them.

The term *manure*, taken in its most extended meaning, includes every matter whereby a soil may be improved, and rendered capable of yielding an increase of nourishment to the plants committed to it, and by which their growth is promoted: wherefore all those substances which, by being placed in juxtaposition, or by being filtrated through their tissues, merely excite the organs to perform more actively the functions of nutrition, come under this denomination, as well as those matters which may wholly in themselves, or in part by their elements, pass into the plant, and, by becoming a component part of its composition, add essentially to its growth and increase. According to this extended view, various products of the three kingdoms of nature would come within the denomination.

But, in a definition so comprehensive, many substances are included, which, I think, can scarcely come within the ordinary acceptance of the word;

therefore, I shall use the term manure under certain limitations.

Chaptal, in his Treatise on Agriculture, divides manures into *nutritive*, which are those which furnish juices and nourishment to the plant, and *stimulative*, which are those substances, as above stated, that only excite the organs to perform their natural functions in excess: we may say that this latter class stands in the same relation to the vegetable economy, as condiments and seasonings do to the animal.

For the sake of explicitness, I shall prefer terming this latter class of Chaptal's, "amenders of the soil," and restricting the term "manure" to the former only; so that, according to their different definitions, as above stated, manure will include those matters, principally derived from the animal and vegetable kingdoms, which are capable of entering into the composition, and adding to the substance, of the vegetable; while the amenders of the soil will comprehend, on the other hand, those products, afforded chiefly by the mineral kingdom, not capable of being assimilated to the substance of the vegetable as manures, yet of use in the furtherance of vegetation,—thus including necessarily the consideration of a number of substances of very vast importance to the agriculturist.

Decandolle says, that every amelioration of the soil, such as draining, &c., is an amender, in the strict sense of the term; but here we limit it to such ameliorations which are practised on the soil only by the addition and mixture of matters, with the design of modifying its physical and mineralogical character, independent of any prominently nutritive effect. We must, nevertheless, bear in mind, that although this division of the subject will be extremely useful for the purposes of investigation, and, in a theoretical point of view, is strictly correct, yet, for all practical purposes, the relation in which manures and amenders stand with regard to each other must not be forgotten; for the greater part of manures have also a claim to the title of amenders, from containing, for example, certain earths, from different circumstances, and from influencing the density, temperature, moisture, &c., of the soil to which they may be added.

*Manures* are here defined as those substances capable of affording a salutary nourishment to vegetables in general, by presenting to them the necessary elements in a state of extreme division, either mechanical or chemical, which elements, through the agency of the vital processes of assimilation with which vegetables are endued, become a component part of the living plant.

In the former number of this magazine I pointed out, that vegetables were composed principally of

carbon combined with oxygen and hydrogen ; we therefore see the reason why dead vegetable matter, containing these principles, may become food to the living plant ; and when we moreover recollect, that animal matter often contains carbon, and always nitrogen, in addition to the oxygen and hydrogen, we see why animal, as well as vegetable matters, are entitled to be called manures, since both, as shown by experience are consumed in vegetation. It has been proved, as Sir H. Davy asserts, that they can only nourish the plant by affording solid matters capable of being dissolved by water, or gaseous substances capable of being absorbed by the fluids in the leaves of vegetables ; therefore the great object to be attained in the application of manure, should be to make it afford as much soluble matter as possible to the roots of the plant, and that in a slow and gradual manner, in order that it may be entirely consumed in forming the sap and organized parts of the plant.

Several experiments, which I have made, with the aid of poisons and coloring matter, prove that plants have the power of absorbing substances, when in a state of solution, unchanged in their chemical relations. The following experiment, from the Lectures on Agricultural Chemistry, and which I have repeated with a similar result, is sufficiently conclusive :—

“ The roots of a primrose were introduced into a weak solution of oxide of iron in vinegar, and suffered to remain till the leaves became yellow : the roots were then carefully washed in distilled water, bruised and boiled in a small quantity of the same fluid : the decoction of them passed through a filter, was examined by the test of infusion of nutgalls : the decoction gained a strong tint of purple, which proves that a solution of iron had been taken up by the vessels or pores in the roots.”

But it is found that the plant, in acquiring the elements of which it is composed, from these manures, does so, in many instances, through certain complex operations, and not always by the substance being merely placed in opposition ; thus, most probably, the carbon, of which plants are chiefly composed, is presented in the form of carbonic acid, and is then decomposed again by the vital power of the vegetable, in order to its proper assimilation. This view is suggested from the minuteness of the pores of plants, which renders it very improbable that the smallest particles of solids can pass into them from the soil. Davy, to prove this, made the following experiment : some impalpable powdered charcoal, procured by washing gunpowder, was placed in a phial containing pure water, in which a plant of peppermint was growing : the roots of the plant were pretty generally in contact with the charcoal. The experiment was made in the beginning of May, 1805. The growth of the plant was very vigorous during a fortnight, when it was taken out of the phial ; the roots were cut through in different parts, but no carbonaceous matter could be discovered in them, nor were the smallest fibrils blackened by charcoal, though this must have been the case had the charcoal been absorbed in a solid form. From this he infers, as no substance is more necessary to plants than carbonaceous matter, and as this cannot be introduced into the organs of plants except in a state of solution, or in the form of gas, that there is every reason to suppose that other substances less essential will be subject to the same law, when in a solid form.

We therefore see the reason why these aliments of the plant are rarely to be employed in their natural condition, but are left partially to ferment and putrify before they are used ; especially when it is

taken into consideration, that by permitting a partial decomposition to take place, the elements of which they are composed not only become more soluble, and therefore more available, when employed for agricultural purposes, but during the furtherance of these operations an additional advantage is derived from the production of many gases, such as the carbonic acid, carburetted hydrogen, azote, and ammonia, which in themselves may become aliments to the plants, or stimulants to its organs of assimilation ; though it must be allowed that the effects they are capable of producing must necessarily be small, for such parts as assume the gaseous form, in consequence of their facility of passing into the surrounding air, easily become mixed with the atmosphere and diffused through it.

I stated above what the elements were, which manures must have the power of yielding, and I also stated that animal and vegetable matters contained them : but it is necessary that a plant should submit to those changes, which it can only undergo after death, before it is in that condition which is essential to its having the power of yielding the required products ; nor is it less necessary, to the same effect that animal matters should likewise be deficient in all vitality : therefore we see it is proper that a partial decomposition should ensue, in order to afford as much soluble matter as possible to the roots of the plants required to be manured ; yet, this process must not be permitted to too great an extent, as in such case there would remain from the manure little else but fixed salts combined with such earths and juices as would be rejected by the plants, or, at any rate, its salutary effects would be much curtailed, yielding, perhaps, nourishment but to a single crop.

The means employed for retarding the process of decomposition are very various, but there is none more practically useful to the farmer than that of mixing the manure with the soil ; for by so doing, it is divided into small masses, which are not so quickly acted on as larger : thus by prolonging the phenomena that take place during decomposition, food is gradually afforded to the plant.

On the other hand, it is necessary that some manures should be exhausted by fermentation of somewhat of their power, when in their first condition they are found in their effects to be too strong and rank : of this description is the dung of certain animals, which, being the excrementitious matter of the food which is necessary to their nourishment, is, by the process it has already undergone, already more or less prepared for immediate use, depending on the force of the digestive organs, which varies somewhat in each species of animal, as well from the differences in their food, as from the quality of the digesting juices furnished by their stomachs. It is from these circumstances that the questions arise as to the relative value of manures, depending upon their composition, and the resisting power with which they are endued.

Many theories have been offered as to the mode in which manures operate ; of these, some are sufficiently fanciful, while others carry with them considerable weight :—the most conspicuous, both as regards their intrinsic merit, and from the high names of their authors, are those of Rozier, Senebier, and our countryman, Sir Humphry Davy.

Rozier, under the impression that nothing can be properly presented to the plants unless dissolved in water, and that the effect of manure is to increase the quantity of soluble matter in the soil to which it is added, argues that their action is to be compared to soaps ; but then he extends the meaning of this word far beyond its ordinary acceptation, for he not only

includes the different combinations of oils with alkalis, but all such modifications of matter as result from simple solutions.

Senecber holds the opinion, that they are rendered useful only through the process of fermentation which they undergo, under the impression that it is through its means alone that carbonic acid is developed; but he has not shown (which it was essential to have done) that all the carbon, which plants derive for their sustenance and growth from the media with which they are surrounded, is presented to them in that form, or, admitting such to be the case, that fermentation is the only means to this end.

Sir Humphry Davy at one time appears to have held much the same opinion, but subsequently attributed the mode of operation to a simple solution of those component parts necessary to vegetation. He says, that he introduced plants into solutions of jelly, sugar, mucilage, &c., but they died; while, after these various solutions had undergone fermentation, similar plants flourished in them, at which time he concluded that fermentation was necessary: but he says that he has since found that the deleterious effect was produced from the vegetable organs being clogged with solid matter, and from the prevention of a free transpiration in their leaves, in consequence of the solutions with which he experimented being too concentrated. The experiments, from which he deduces that his former opinion was erroneous, were made with similar solutions in the proportion 1-200th part of animal and vegetable matter. "Plants of mint," says he, "grew luxuriantly in all these solutions, but least so in that of the astringent matter. I watered some spots of grass in a garden with the different solutions separately, and a spot with common water, the grass watered with solutions of jelly, sugar, and mucilage, grew most vigorously! and that watered with the solution of the tanning principle grew better than that watered with common water." And then he goes on to show, from experiment, that there is every reason to suppose that soluble matters pass unaltered into the roots of plants.

Although each of these theories is sufficiently plausible, yet there is that known in opposition to each which permits one to say decidedly that neither is to be considered conclusive. Without entering into any general discussion as to their relative merits we may state, that by taking them all into consideration, by supposing, that now the phenomena are in accordance to the laws of one, and then in accordance of another, and by calling to our assistance the knowledge we possess of vegetable nutrition, we may, though not capable of defining a theory, be enabled to comprehend the various modes by which manures yield nourishment to the vegetable world.

We shall find, in the progress of this enquiry, that the different manures contain the elements necessary to vegetation in very different proportions, with which as well as with the relative strength of the *chemical* affinities they exert, both in respect of their own composition and the conditions to which they are subjected, it will be necessary we should make ourselves acquainted. The consideration of these subjects may be resolved into the three following divisions:—

1.—What is the gross amount of carbon contained in a given quantity of manure; in what state of combination does it exist; and in what mode is it presented to the plants?

2.—What other matters are contained, which from their nature may essentially be considered as manures, as nitrogen, oxygen, &c.?

3.—What other matters are contained, which can-

not be esteemed as manures, but as amenders or stimulants only?

The first of these queries involves by far the most important subject of enquiry to the farmer, and, fortunately, is not very difficult of investigation. The second and the third, though not so accessible to our researches, are by no means to be neglected in an inquiry of this nature; indeed, without a knowledge of them, the subject would be but imperfectly considered.

The more natural and convenient division of manures of organic origin, will be found to be into that of the vegetable, animal, and mixed.

**VEGETABLE MANURE.**—Under this title a vast number of substances are included, the agricultural properties of some of which will shortly be discussed. The whole of this class, for the most part, owe their importance to containing extractive matters,—albumen, mucilage, gelatine, sugar, oils, acids, salts, carbonic acid in aqueous solution, &c., which, however in their pure form, are seldom available to the farmer, as an application of manure, though they may be of great and prompt advantage to vegetation; nevertheless, they are all employed by him, combined, generally speaking, with a great excess of fibrous insoluble matter, which must undergo certain chemical changes before it can become the food of plants; for it is during the progress of the processes here alluded to that the decomposition ensues which causes the solubility of those particles, which in their former condition were insoluble. "Of those substances," says Chaptal, "which constitute animal and vegetable existence, the greatest number are soluble in water, and it is evident that in this state we may employ them as manures without previous fermentation; but when they contain much matter insoluble in water, it is necessary they should be decomposed by fermentation, since by its means their nature is changed, and new compounds are formed, which are soluble, and capable of being taken up by the plant."

The progress of the changes which are thus effected have been particularly detailed in the Lectures on Agricultural Chemistry; together with that great author's opinion on the propriety of taking "a scientific view of the nature of these changes,—of the causes which occasion them, and which accelerate or retard them,—and of the products they afford." The products of fermentation are very various, depending on the nature of the substances of which the vegetable mass is composed, influenced greatly by many accidental causes. The diversity and almost uncertainty of the products have rendered observations on its progress very difficult;—we may, however, say, that the result of the spontaneous reaction of the matters composing the mass on themselves, in consequence of humidity, is, that carbonic acid gas, acetic acid, carburetted hydrogen, &c., are evolved, leaving eventually a brownish blackish mass, which is termed "terreau" by the French, and earthy matter, or vegetable mould, by ourselves. To this effect, Sir H. Davy, from experiment, proves, that "if any fresh vegetable matter, which contains sugar, mucilage, starch, or other of the vegetable compounds soluble in water, be moistened and exposed to the air, at a temperature from 55° to 80°, oxygen will soon be absorbed, and carbonic acid formed; heat will be produced; and elastic fluids, principally carbonic acid, gaseous oxide of carbon, and hydro-carbonate, will be evolved; a dark-coloured liquid, of a slightly sour or bitter taste, will likewise be found; and if the process be suffered to continue for a time sufficiently long, nothing solid will remain except earthy and saline matter, coloured black by charcoal." The dark-coloured fluid always contains acetic acid. So

that the general division of the products of this putrefactive fermentation may be stated as into liquid, gasous, and solid.

The liquid are chiefly water and acetic acid, and with, probably, a little oil. The gaseous are the carburetted hydrogen, carbonic acid, and, when nitrogen is present, ammonia. The solid are those matters which are contained in that residuum termed vegetable mould.

The prominate principles, which depend on the arrangement of the elements, are not equally liable to undergo this species of dissolution: as a general law it may be stated, that those which contain hydrogen and oxygen in the proportions to form water, are the most susceptible of the putrefactive changes; whilst acids which contain an excess of oxygen, and those substances in which charcoal and hydrogen prevail, do not manifest a similar tendency, unless, through the mediation of heat and moisture, their affinities be estranged. Thus, "in proportion as there is more gluten, albumen, or matters soluble in water, in the vegetable substances exposed to fermentation, so in proportion, all other substances being equal, will the process be more rapid. Pure woody fibre alone undergoes a change very slowly; but its texture is broken down, and it is easily resolved into new elements when mixed with substances more liable to change, in consequence of containing a larger proportion of oxygen and hydrogen. Volatile and fixed oils, resins, and wax, are more susceptible of change than woody fibre, when exposed to air and water, but much less liable than the other vegetable compounds."<sup>78</sup>

We see, therefore, that it is necessary, in order to appreciate the probable action of the many manures generally in use, to analyse them carefully, so that we may be enabled to consider what the ingredients are of which they are composed; but this must not be the end of our investigations, as other considerations of importance are not to be overlooked. In proof, we adduce the following:—Carbon, as repeatedly observed, holds the first rank as a manure: the matter which is the most rich in carbon is the charcoal of wood, which, were we to take the relative quantity only into consideration, we should be induced to believe to be the best of manures; yet we really find that it can scarcely be ranked amongst them, for the carbon, when it is in this condition, is but slightly induced to form carbonic acid, and is not susceptible of forming a solution capable of being absorbed by the roots.

The other circumstances, to which attention is principally to be paid, are,—the elevation of temperature which may be caused either by the rapidity or degree of fermentation; the quantity of water which the plants contain; the presence of such nutritive matters as are unequally soluble, thus permitting a prolonged action; and the presence of such matters as are not of a nutrient quality, but merely excitants.

We shall now proceed to the consideration of the more important manures in ordinary use, and to which the above observations are applicable.

**GREEN CROPS.**—The most usually employed are the green succulent plants, as trefoil, lucerne, beans, &c. These are principally composed of woody fibre, combined with mucilaginous and saccharine matters, which, from containing the elements they are composed of in such proportions as are easily convertible into water, especially as their affinities are so weak as easily to undergo the putrefactive fermentation, aided, as this process is, by the large proportion of

fluids they contain, the woody fibre, which in its simple state, from containing a much larger proportion of carbon than oxygen and hydrogen, is not very susceptible of putrefaction, by being submitted with the other portions of the plant to this action, has its carbon converted into carbonic acid, reducing thus the oxygen and hydrogen to proportions convertible into water;—thus the whole becomes soluble.

As these processes take place very easily, it is necessary to use them immediately they are cut down, or the usual and best plan is, to plough them into the ground, at once, on which they were growing; but care must be taken that they are not sunk too deep in the soil, as in such case, from being deprived of heat and air, their benefit will be but very slowly developed; at the same time, they must be ploughed in sufficiently to enable the woody fibre to be dissolved, and to prevent the fermentation going on too rapidly, that the nutrient elements may not be dissipated through the air.

The best time for ploughing in these green crops is during the summer, before the plants have scattered their seed, and when their leaves are full of fluid, and there is heat of sun sufficient to hasten the destruction of their natural condition.

It is the opinion of a practical writer, that where crops of green plants can be turned down, when the season is sufficiently hot to ensure their speedy running into the putrid state, there cannot be any doubt but that it is a better and more advantageous practice, especially where manures of other kinds are scarce, than that of procuring it by the consuming of such crops by the feeding or soiling of cattle.

Of a similar nature, both as to chemical composition and practical use, is the *river weed*; it contains a large quantity of mucilaginous and saccharine matters, with, perhaps, less of woody fibre than the succulent land plants.

From the very large proportion of water which it contains, it is necessary to heap it for a week or so (ten days at the furthest), to permit the superabundant quantity to drain from it: it may then either be ploughed in, or mixed with a little lime and earth to form a compost. From this large proportion of fluid, and from the easy solution of its component parts, it is necessary to use it as early as possible; for a very short time is necessary, under favourable circumstances, to hasten the completion of the process of fermentation, in which case its application as a manure would be useless.

In the neighbourhood of the sea coasts there is not a more available manure than the *sea weed*; the fuci, algae, and confervæ, are indiscriminately used: though unequal in their composition, they each abound with mucilage and salts, which for the most part are the muriate and carbonate of soda, and analysis has shewn that they also possess much carbonic acid. As sea weed does not contain fibrous matter, there is no necessity for permitting it to ferment before ploughed in: from the same cause, also, together with the quantity of water formed by its decomposition, the effect produced on the land is but very transient. So rapid, indeed, is this process, that it is found the cast-up weed is not nearly so valuable as that cut from the rocks. Those soils which are manured by it must be annually supplied with large quantities.

In the islands of Guernsey and Jersey it is used in the spring in its natural state, immediately after cutting it from the rocks, when it is found of great service in pasture lands; later in the year, however, they dry the weed, and, from scarcity of fuel, burn it, and use the ashes only as a dressing; but the loss, in an agricultural point of view, is very great,—in

\* Davy's Agricultural Chemistry.

fact, it is little more than strewing the ground with sea salt.

The value of this manure in improving old pastures is very great, and where it has been tried, it is remarkable with what avidity sheep and cattle eat the grass, and how well they thrive and fatten on it.

(To be continued.)

## PARING AND BURNING.

[We by no means coincide in all the statements contained in this article; we, however, postpone our remarks for the present, in the hope that some *practical* farmer may be induced to comment upon them in our next publication.—Ed. F. M.]

This is a subject which has occupied the attention of agriculturists for ages, and still remains polemical; yet how few individual writers step forward to extricate us from the labyrinth in which we are heedlessly wandering. And shall we, while the mechanical world is making such rapid strides toward the zenith of perfection, remain dormant and listless? No! Let every one dedicate his talent however diminutive, to the public weal, and then we shall see the agriculturists not passing along the same paths which their fore-fathers trod, but soaring as it were, into other climes, catching the living manners as they rise, see all efforts combined for the public good, and the combined efforts concentrating in individual happiness. Still, my feeble efforts to elucidate the subject may be ineffectual; but if I do but advance one single step more towards the point of perfection, I shall consider myself sufficiently remunerated. Not, that I wish to attribute the least ignorance to the enlightened agriculturists of this kingdom; far from it. I respect them, and shall always feel it my duty to contribute their general welfare.

One class of farmers supports the system of paring and burning, while another as strenuously opposes it. Now which of the contending parties is steering the most judicious course, remains yet undecided. It is generally acknowledged, that by burning, the soil is very much reduced. The vegetable matter, by being calcined, instead of gradually undergoing the process of putrefactive fermentation, is immediately brought into active exercise, and at once appears to afford an ample remuneration to the farmer. As it generally occurs, that paring and burning is found most serviceable on cold, low, wet lands and the most tenacious soils, that being the quality of land which naturally produces nothing but aquatic plants and coarse grasses, injurious to animal existence, it has, therefore, been thought the most effective method of bringing the land into an immediate state of cultivation, without once taking into consideration the great loss of soil which must necessarily occur from the combustion of so great a mass of vegetable matter. Consider the great mass of vegetable matter you have on the surface, and which by putrescence, would furnish you with a fine rich compost for two moderate dressings; but by being calcined loses all its vegetable properties, and is nothing more than torrifed earth; all its vegetable properties having passed off during the combustion; for,—

The heat which from combustion springs,  
Gives to matter it's eccentric wings.

How many are there of the new compounds formed

during the combustion carried off by Heaven's winds, to other lands.

Another prevailing cause why paring and burning has been so much sanctioned is, because the farmer has generally had most exuberant crops for two or three years after it; but what has been the effect after those crops have been taken? We generally find the same lands, which but a few years before, presented the most imposing appearance, afterwards presenting as barren an appearance. One great advantage that arises from burning is this:—the calcined earth, by being incorporated with the raw, tenacious soil, keeps open its pores, thus acts as a common percolator, by allowing the water to pass freely from the surface, which, if retained, would be injurious to vegetation; thus accounting for the benefit which arises from burning for two or three years, but as to the real, or permanent utility, I very much doubt; for I have invariably found lands which have been subjected to paring and burning, ultimately very much deteriorated, which must necessarily occur from the destruction on the loss of so much vegetable matter.

But, as doctors differ, so do farmers: I will, therefore endeavour, as concisely as possible, to lay down a plan which I have pursued, as I have not met with the work of any agricultural writer who has written upon it. My plan is paring, *without burning*; but, allowing the vegetable matter to gradually undergo the putrefactive fermentation, and I think it far preferable to paring *with burning*, as there is no loss of vegetable matter.

In the year —, I pared and burned a field; the summer proving very unfavorable, I found great difficulty in getting the turf into a fit state to burn after frequent repetition of turning and rearing the sods, became so broken as to prevent the entire collecting of them from oil the surface. One part of the sods were burnt, and the other remained scattered about the surface, in small pieces. The ashes from the part of the sods which were burnt were spread, and the ground ploughed. During the ploughing, the greatest difficulty was found in turning over the furrow, from the loose turf which lay scattered over the surface, causing it continually to rear. After the ploughing the land was sown with wheat, and in return for the immense labour I received an extremely poor crop. The year following I ploughed another field, adjoining the former, and about in the same condition, in regard to the turf and quality of the land; this field was ploughed down without paring; the turf in this instance, resisted the pressure of the plough, and wherever there was an abundance of it, the furrow reared very much. This field was sown with oats, and in return, I received a very bad crop.

As necessity is the mother of invention, from having two crops which were failures, I determined to try some other plan, and on the year following, I adopted the method which I am about to state, in a field adjoining the two former one's, and as nearly allied to them as possible, as regarded the quantity of turf and quality of the land. I had the field pared, and the whole of the sods carted off, and heaped up to the height of about four feet, in a convenient place in the field. I then had ten quarters of lime per acre, spread upon it, and the field ploughed down immediately after spreading the lime. The same Michaelmas the field was sown with wheat, and I never had, to my recollection, a more abundant crop. The next year I put in a leguminous crop, and the year fol-

lowing, a calmiferous one. In the winter succeeding to the last mentioned crop, I had the field spread over with one half of the compost formed by the decomposed turf, and then ploughed in; the summer following I followed the same field, and did not give it any manure, excepting the compost which had been spread on in the winter. I had the fallow sown with turnips, and had a remarkable good crop; the next spring it was sown with oats, and seeded; the crop of oats was excellent,—yielding seven quarters per acre. The following winter I put on the remaining part of the compost, and the seed crop, I may say, was super-excellent.

Now the two first mentioned fields required following after the first crop was taken. The field which was pared and burned might have sufficiently remunerated me, had the season proved favorable, but then it is quite impossible for us to prognosticate the state of the weather during the course of a summer. Again: by paring and burning, you are obliged to commence the process in the early part of the summer,—thus, losing your summer's grass: besides, from the combustion, you have a great loss of soil; many of the component parts of the vegetable matter being resolved into their primary elements, again combine, assume new forms, and are carried away by the atmospheric air; whereas, by paring and removing, you may delay the process until the latter part of the summer; thus taking the benefit of the summer's grass. You have no hazard to run in regard to the season, no loss of soil from combustion; but you gain a rich compost from the decomposed turf, sufficient for two dressings. And if we make a moderate calculation upon the two systems we shall find the latter less expensive than the former.

Supposing we make the following computation:—

FIRST METHOD.	
Paring and burning..	24s per acre.
Spreading .....	2s ditto.
—	
Total ..	26s
SECOND METHOD.	
Paring .....	14s per acre.
Leading and heaping..	8s ditto.
—	
Totals ...	22

Thus we see how far one system exceeds the other in expense. But as regards the ultimate benefit to be derived from them, I leave that to the practical agriculturist to determine, and merely state what I have done.

*(To be continued.)*

*South Normanton, Alfreton, S. P. G.*  
*Derbyshire.*

A CURIOUS RAM.—Mr. Foster, butcher, of High-street, Doncaster, has in his possession a ram, which is considered a wonder by all who have seen it. The size of the horns, and the strength of the animal, are equally surprising. The animal is five years old, a mixture of the Spanish and Norfolk breed, and has been in Mr. Foster's possession a considerable time. The length of each horn is rather more than four feet, and the circumference at the roots, twelve inches. It will carry Mr. Foster's eldest son, about seven years old, on its back, with the greatest ease and safety. Lord Hawke, and several noblemen and gentlemen, have viewed the animal with astonishment, and many overtures have been made for a purchase, as neither the Zoological gardens in London and Liverpool have so fine a specimen.

## SELECT COMMITTEE ON AGRICULTURE.—HOUSE OF LORDS.

(AS AMENDED 4TH JULY, 1836.)

[The subjoined report was proposed, but not agreed to.]

The Select Committee of the House of Lords appointed to inquire into the State of Agriculture, and into the causes and extent of the distress which still presses upon some important branches of Agriculture, and to report their observations and opinions thereupon to the House, have, in pursuance of the Order of the House, considered the matters referred to them, and agreed to the following report:—

It is the duty of the Committee to state to the House, that, from the evidence of witnesses of various classes, and collected indiscriminately from all parts of the country, there can be no doubt that a great and generally prevailing distress has affected, and, except mitigated by circumstances of a questionable character both in respect of real relief and of probable duration, still continues to affect, the Agriculture of this kingdom.

They are most anxious in no degree to overstate the case into which they are directed to inquire; but it appears that, looking to facts generally, and with those exceptions only which great accumulation of property in a few individuals, or the peculiarly favourable condition of certain descriptions of land, partially present, the general condition of what is called the landed interest may be stated to be this:—

The owner of soil is labouring under fixed charges, with greatly diminished rents:

The occupier is contending with reduced prices of produce, while the wages of labour, the cost of implements of husbandry, and most of the costs of production are in comparison but slightly diminished:

And the yeomanry, uniting the character of the two and sharing in the distress of both, are suffering in a still greater proportion in the general depression which prevails.

It is impossible also to overlook this peculiar feature of the case, that though in various alternations of peace and war, of scarcity and abundance, which the history of the country presents, its different interests have at times been subject to all the varieties of prosperity and depression, it would be difficult to find any period when, for twenty successive years, with one short intermission only, one particular interest has been borne down with continued and seemingly increasing pressure, till it has arrived at that state in which an inquiry into its condition had been matter of recommendation from the Throne, and has of necessity been entered into by both Houses of Parliament.

The Committee would have had a pleasure if, in turning their eyes from the situation of the proprietor and occupier of the soil to that of the labourer drawing his subsistence from it, they could see reason to indulge the hope, that that which is described as the comfortable condition of the latter were one which could in its nature be permanent.

All the witnesses are agreed that the wages of labour are higher than the farmer can afford; it required no evidence to prove this; for it appears that wages in England are not reduced more than perhaps 1s in 8s or 9s, while the prices of produce to the farmer cannot be reduced less than from thirty to fifty per cent.

Mr. Cayley, in his evidence, has well observed, that there cannot be a more alarming state of things than that of a labourer thriving at the expense of his employer.

To questions put, "How the farmer continued to pay wages incompatible with his profits?" the answer has generally been, "That he did not know how to reduce them."

But it is evident that this is a state of things which cannot continue. Sooner or later, and probably at no distant period, when rents have been further reduced, (and there is reason to think that this has already taken place to an extent highly detrimental to the classes de-



pendent on the agricultural interest for custom or employment;) the next step must be a general reduction in the wages of labour. To that point, except the prices of produce be rendered more commensurate with the cost of production, we must speedily come.

Should this be coupled with any diminished means of obtaining the necessaries of life, from deficiency of produce arising from bad seasons, such as have already raised the price in some articles of produce to the injury of the consumer, but as it is stated with no adequate remuneration to the farmer, it would be impossible to maintain the exclusion of Foreign grain, and thus the means of the farmer to give employment would be further reduced.

The Committee submit that it is impossible to contemplate a state of things not only possible, but to which the situation of the country rapidly tends, without the deepest apprehension.

The Committee have proceeded first to ascertain whether the depression of the price of wheat, that article of produce in which the depression of price greatly exceeds that which is distinguishable in any other article of agricultural produce, can be attributable to an increase of the growth or a decrease of the consumption, or to both.

Upon this subject they feel it difficult to declare a positive opinion.

Many of the witnesses have deposed to a greatly increased breadth of corn sown: on the other hand it is questionable whether the exhaustion of lands over cropped, and, from the same poverty of the tenants which led to over-cropping, ill-manured, has not reduced in a great degree the general amount of produce.

There can be no doubt, however, that, going back to a period before the war, an immense increase of corn has taken place. It must have been so to have maintained with so little addition of Foreign importation such a vast increase of population; but then, on the other hand, the effects of this increase of population must be taken into account, and in what degree the one balances the other it would be difficult to decide.

They would wish, however, to call the attention of the House to some facts belonging to the case.

The great increase of inclosure acts and presumed increase of agricultural produce took place between 1798 and 1813, during which time the population, though progressing, showed by no means the same amount of increase as at the present time.

During this period prices were continually rising.

From 1813, or rather from 1815, down to the present time, though it may be doubted whether any considerable increase has taken place in the quantity of corn produced,—and during which time, on the contrary, the population has been increasing at a rate of upwards of 200,000 souls in the year, prices have been continually falling.

When, therefore, we see that the greater amount of corn, seconded, as we have shown it in the first period, by a comparatively smaller increase of population, was yet unaccompanied by any visible diminution of price; and that, in the second period a less amount of corn, counteracted by a great increase of population, has failed to arrest the tendency of prices to fall, we must be led to the conclusion that this is not the cause of the depression of prices at the present time.

Those of the witnesses who appear to have had the best opportunities of observation, and who have made it their study to investigate most attentively and accurately the particular circumstances of the agricultural interest, having watched the fluctuations in the prices of the various articles of agricultural produce, and the causes in operation when such fluctuations occurred, and to which they were referable, have concurred in the opinion that the low range of prices of agricultural produce which has prevailed generally for the last fifteen or sixteen years, and which is the cause of the existing distress, has been occasioned by the contraction of the circulating medium consequent upon the operation of those measures of the legislature which enacted the resumption of cash payments by the Bank of England, and the restoration of payments in gold.

The witnesses have supported that opinion by reference to the actual variations which have taken place in prices following, and consequent on corresponding fluctuations in the state of the circulating medium: and they have shown that although particular causes affecting temporarily the supply or the demand for particular articles may for a time have raised such articles above, or depressed them below, the price which they would have borne if they had not been acted upon by such causes; and although there has occasionally been a discrepancy between the prices of such articles and the amount of the circulating medium, by which prices generally are alleged to be regulated, yet it has been proved that, when such a discrepancy has existed, there has always been a disturbing cause sufficient to account for it, and that the general range of prices has, in the long run, been governed by the amount and state of the circulating medium.

Upon the subject of these disturbing causes, by which the marketable value of different articles has been at different times affected, the committee refer to the evidence for some interesting and valuable information.

The prices of barley and oats have in some years been kept above their proportionable price in consequence of a deficient harvest.

In 1831 the price of wheat was raised to 70s from a similar cause.

The general prevalence of rot among the sheep, by which one-fourth of the flocks of the kingdom are stated to have been destroyed in the wet season of 1831 and the preceding years, produced a scarcity of mutton and of wool, and occasioned them to bear a higher price, and also caused a rise in the price of beef.

These cases do not at all disturb the general rule that the quantity of money must determine the general price of commodities, nor do they affect the proof which has been given that the depression of prices from which the agricultural interest has suffered has been occasioned by the operations on the monetary system to which the witnesses have referred.

This was the conclusion arrived at by the Committee of the House of Commons which was appointed in 1821 to inquire into the causes of the agricultural distress existing at that period, immediately subsequent to the coming into operation of the bill of 1819, which established the present monetary system.

That Committee reported, "That they cannot but ascribe a proportion of the depression of price, which now generally prevails in other countries as well as this, to the measures which the restoration of our currency has rendered necessary, the general effect of which has been in some degree to derange the markets of every part of the civilized world."

The report of the Committee of 1833 confirms also this view, and the table of the prices of corn, contained in the Appendix, shows that the effects of the measures of 1819 began to be felt immediately on their coming into operation, and that they have not yet ceased.

It has been argued, in opposition to these views, that if the depressed state of Agriculture is attributable to this cause, the trade, commerce, and manufactures of the country could not have been exempt from its operation; and these it is alleged are now flourishing.

The Committee do not consider it within their province to carry their inquiries into an examination of the actual condition of the trading and manufacturing interests, how far they have been or have not been affected by the same causes as the agricultural interest, or, if exempted from the influence of these causes, to what their exemption is to be attributed; or into their alleged prosperity, the time which it has endured, or the probability of its permanence. They will observe, however, that a general depression of price of all commodities did not take place contemporaneously with the measure of 1819.

It is unquestionably also the case that the system under which the agriculture of the country is necessarily carried on, renders those who are engaged in it more liable to be permanently affected by any fluctuation in prices, than those whose capital is employed in trade. The rent of the farmer, his taxes, his wages, remain for a long period unaltered, whatever may be the

fall in prices; and his capital is invested in a shape in which he cannot dispose of it in anticipation of a change in times. The operations of the merchants and manufacturers, on the contrary, have much less reference to preceding events: their prosperity does not depend upon any comparison between present receipts and engagements of ancient date, but is generally regulated by the simple principle of supply and demand, uninfluenced, or influenced in a much less degree, by any of the results, which, in a great fluctuation of price, have been shown so materially to affect the condition of the agricultural class.

The Committee now come to the consideration of what modes of relief may be applicable to the present or prospective condition of the interest, whose situation has been the subject of the present inquiry.

In approaching this question they find their difficulties much enhanced by the consideration that some of those causes, which have been referred to in the preceding part of this report, and which, in the opinion of many, are considered to be the most influential causes affecting this question, are precisely those with which Parliament has declared a reluctance to deal.

There is a subject, however, akin to this part of the question, on which, though in opposition to the opinion of the Governor of the Bank of England, to whose evidence in support of his opinion they refer, they are nevertheless inclined to offer their recommendation. They allude to the restoration of the silver standard.

In the report of 1819 it is stated, that the object proposed was to restore the ancient metallic circulation and standard.

The ancient standard was formed equally of silver and gold, and it was in the option of all debtors to discharge their obligations in either coin.

The bill of 1819 (the 59 Geo. 3, c. 49,) professes by its title to continue the restrictions, contained in the several enumerated acts on payments in cash by the Bank of England, and to provide for the gradual resumption of such payments.

The meaning of these words is that the payment of all debts was to be made in the same coins in which they might legally be made at the time when the first of the acts recited in the preamble of that statute passed; this was the construction put on these words in both Houses of Parliament.

It was said that this law was made to retore the ancient standard of value: now the ancient standard was a joint standard of gold and silver, and that standard was continued as the lawful standard until the year 1816, which was long after the passing of the recited acts.

The 14 Geo. 3, c. 42, in consequence of the state of our silver coin at the time, limited the tender of it by tale to payments to the amount of 25*l*, but allowed it to be a tender by weight to any amount.

The 56 Geo. 3, c. 111, which declare in section 11 that gold and silver have been at various times tenders for payments to any amount, was the first law that altered the standard of value, by enacting that silver should no longer be considered a legal tender for more than debts of 40*s*. Whilst cash payments were suspended the change made by this bill was not felt; the 52 Geo. 3, first brought the 56 Geo. 3, into force, and made the country sensible of the great contraction of the currency which that act had occasioned.

It appears that at the times when the two above-mentioned acts (the 56th and the 59th Geo. 3.) received the sanction of the legislature, gold, which by these acts became for the first time the sole legal tender and measure of property, had advanced in price as estimated against silver, and had become the dearest of the two metals, both in this country and throughout Europe; these acts therefore abolish the old, the easier, and the lower standard, and substitute in its place a new, a higher, and more contracted standard; and, to the extent of the difference between the value of these two standards, effected a reduction in the money prices of all property and commodities below the level which the old standard would have sustained; and in an equal degree increased the weight and virtual amount of all existing debts, contracts, and taxes.

Since the period of the passing of these two acts it appears that standard silver has borne a price in the market, as estimated in gold, of from 4*s* 9*d* to 5*s* 2*d* the ounce. An ounce of standard silver was, according to the law bearing date 1601, and which continued in force to 1816, coined into 5*s* 2*d* of money; which money so coined, during this whole period, was a legal tender in this realm, a standard of value, and measure of property: taking the average market price of standard silver for the period which has elapsed since 1819 at 4*s* 11*d* the ounce, this gives a difference of 3*d* the ounce, or about five per cent. between the market price and the old mint price of silver during this period.

It is therefore to this extent, viz. to the extent of five per cent., that the act of 1816 substituted a higher standard for the ancient legal standard of the realm.

The prices of agricultural productions, and of all other property and commodities, have thus been reduced five per cent. below their just level; whilst all taxes, debts, and contracts have been wrongfully increased to a like extent.

It does not appear that the legislature, in adopting this important measure, took into its consideration the weighty interests concerned; or contemplated a change which would have the effect of lowering the prices of commodities, and of increasing the amount of debts and taxes.

Considerations of justice, as well as of policy and necessity, seem now to require the re-establishment of the ancient standard of value of the kingdom, by the restoring silver coins as a legal tender conjointly with gold coins, such silver coins being in the proportion of one ounce of standard silver to 5*s* 2*d* of money.

The Committee are aware that in thus proposing to return to the ancient standard, such as it has always existed up to the year 1816, they are recommending that which cannot properly be described as a measure of agricultural relief; but they conceive that, by at once widening and rendering safer the basis on which all monetary transactions rest, they will afford greater facilities to agricultural as well as to commercial concerns, and benefit the farmer in two ways in which he is susceptible of being benefited; viz., by the means which it affords of increased accommodation, and by the creation of new speculators in the market in which he deals.

The next head of inquiry to which your Committee propose to advert is the importations from Ireland.

Between the years 1814 and 1836 the importations of Irish wheat have increased from 159,138 quarters to 340,565 quarters, and wheat flour from 180,375 cwt to 1,124,343 cwt., barley from 29,108 quarters to 156,542 quarters, and barley meal from 5 cwt. to 248 cwt. Oats from 576,544 quarters to 1,462,580 quarters, and oatmeal from 32,988 cwt. to 556,006 cwt.

The importation of other articles of agricultural produce has also increased in a large proportion.

The improved communication also by railroads and steam navigation has much facilitated the transport of live and fresh meat, and all other articles, so as to produce a more constant and far wider impression on the English market.

It may, however, be doubted, whether the increase of importation may not have been more than counterbalanced by the rapid increase of population in England within the same period. It appears, likewise, that the importation of wheat and wheat flour from Ireland has diminished annually to the extent of about 200,000 quarters within the last two or three years contemporaneously with a great fall of its prices.

If the import of Irish produce have the effect, which it must necessarily have, of depressing the English market, the legitimate mode of alleviating such a state of things would appear to your Committee to be a system of legislation that might tend to raise the physical condition of the Irish population to the extent that would enable them to consume a larger proportion of the produce which they raise, and also eventually empower them to bear a more equal share of the general taxation of the empire.

One step in this course of prospective improvement,

according to the opinion of your Committee, might be a well-considered plan of poor laws for Ireland.

With respect to other modes of relief than those alluded to, every species of taxation pressing upon agricultural production must have reference to it, and every remission of such taxation must tend, directly or indirectly, to its relief; yet the great reduction of general taxation that has taken place on agriculture since the peace, without a corresponding diminution of the pressure upon that interest, shows clearly that the reduction has fallen far short of the actual necessities of the landed interest.

One cause of this, undoubtedly, is the rise of the value of money, which has lowered the price of the produce to a greater extent than the taxation has been reduced. It cannot, however, be argued from this that the reduction in taxation has been no relief, because, if the taxes which have been reduced since the peace were to be re-imposed, there would be physical impossibility to enforce the payment of them. At the same time it appears equally evident that a reduction of the general taxation sufficient to meet the depression in our agriculture is incompatible with our obligations to the national creditor.

Still the Committee are inclined to the opinion that some modification of the taxation might be made which would operate beneficially on the land,—for instance, if any substitute could be found for the malt tax it would doubtless stimulate the demand for and the growth of barley, and likewise tend to improve the price of wheat. Whether such substitute could be found in an equalization of the land tax (the inequalities of which are shown in the Appendix), which seems to have been almost entirely evaded by all other descriptions of property, although originally designed to fall on all, personal as well as real, or whether the beer duty may not on the whole (whether financially or morally considered) be a better tax on barley (if it be required) than malt, we leave to the more mature consideration of the House, satisfied that the repeal of this tax, in many points of view, would be a great boon both to the farmer and the labourer, as well as to the morality of the country at large, provided it can be done consistently with the national credit.

The Committee have also heard evidence which favours the proposition that a remission of the duty on soap might be effected by substituting for it the imposition of a higher duty on foreign tallow; the effect of which would be to benefit the working class in their consumption of the necessary article of soap, to give encouragement to the feeders of stock, and a higher price to that part of the carcass which of late years has lost so much of its comparative value.

Another question which, from the importance attached to it by many of the agricultural class, has a claim on the attention of your Committee, is the warehousing of foreign corn.

Those who uphold the present system contend that, from the proximity of ports opposite to the English coast, the only practical result of disallowing the warehousing of foreign corn in this country would be to transfer to foreigners the profits of the transaction now enjoyed by the English; and further, that in case of a general scarcity it might not be safe to discourage the warehousing of the produce of the continent on our own shores.

It is alleged, on the other hand, that the warehousing system takes from the English grower much of the protection intended for him by the corn law of 1823.

It appears from the returns in the Appendix, that from the year 1814 to that of 1836, there have been only seven years (three of them, 1833, 1834, and 1835,) in which the holders of warehoused foreign corn might not enter it for home consumption at a duty of 1*l* 1*s* 8*d* per quarter—a duty considerably lower than that which the average price of wheat during any continued period would give; this is an advantage which would not be obtained by any one not having his corn at hand to watch the turn of the market; and the result has been that the corn merchant, being able to buy foreign wheat at perhaps half the price at which it can be profitably grown in this country, and having the same fa-

cility of bringing it to market which he would have with English wheat, is led to speculate exclusively in foreign produce, to the detriment of the English grower, whose surplus produce might otherwise be accumulated in our warehouses, as is the case with foreign corn, relieving the market at periods of over-abundance, and at the same time ready to be brought again into the market to the relief of the consumer in a season of deficient supply.

The Committee, notwithstanding, would be unwilling, without the fullest inquiry, to offer any opinion favourable to the alteration of the existing system; but they may be permitted to throw out the following considerations.

In the first place, the great importations from Ireland have materially altered the situation of this country in respect to foreign supply.

It is to be considered also that an embargo on corn warehoused abroad could hardly take place so suddenly or generally, but that in a country like this, abounding in population and manufactures, the gradual demand for and progressive rise of price would necessarily bring to our markets the surplus produce of foreign countries, long before the exigencies of any particular state, or the policy, from any cause, of its government, suggested the prohibition of exportation.

The duty in 1801, imposed by Prussia, during a particular period of scarcity, being a duty imposed on exportation, suggests no argument as to the preferableness of warehousing at home or abroad, but only leads to the general conclusion, that it is advantageous to render ourselves, as far as may be, independent of foreign supply.

Supposing this question, by much the more difficult one disposed of, which the Committee are far from asserting, the other argument, viz., the profitable employment of capital which the present system affords to certain individuals engaged in the warehousing trade, is of much more easy solution.

It cannot be seriously urged that the interests of a small, and comparatively unimportant class, can be weighed in the balance against the claim of the agricultural interests of this country to enjoy unimpaired that protection which the State has guaranteed to them, and which, by promoting a large and steady supply of corn of home growth, may be necessary to ensure its independence of foreign nations in the great article of food.

Other suggestions were made in the course of the evidence, of minor importance, for which the Committee would refer to the evidence itself; and as matters of detail they appear well worthy of consideration.

In a great question of this kind it has appeared to their judgment preferable to put the more important features of the subject the most prominently forward. The evils which have befallen the agricultural interest must be deeply seated, and beyond mere natural causes, or they would not have been so lasting and general in their pressure; and if, during the sitting of the Committee, some improvement of prices has taken place, tending to raise (as is always too easily the case) the hopes of the agriculturists that the depression had reached its lowest point, and that the season of former prosperity was about to revive, the very facts to which this improvement must be ascribed are unfortunately those which it is to be feared cannot be depended on for permanence, and in their beneficial effect are calculated to produce only imperfect and partial results.

To take this latter point first: the high price of mutton and beef, there can be no doubt, is in great part owing to the general failure of the turnip crop in the last year, and the great deficiency of food during a winter unusually prolonged, so that the stock was not only diminished in quantity, but greatly reduced in fitness and weight.

The great destruction of lambs also by the severity of the spring is not a matter of doubt. Can it be said that the farmers, as a body, can be benefited by the loss of one-half or one-third of their stock?

It is notorious also that the London butcher, though charging 1*d* to 2*d* per pound more for his meat, finds his profits less than in cheaper years; so that all, as is

necessarily the case, are losers instead of gainers by high prices, the result of scarcity.

Another cause to which the late advance of prices has generally been referred, is the extension of joint-stock banks, which by stimulating trade and increasing consumption, the usual effect of an enlarged circulation, has benefited the agricultural in common, though not in the same degree, with the other industrious classes, and chiefly in those districts where such banks have been established.

It is obvious, however, while these results seem to point out the mode in which agricultural prosperity may be made to revive, that of all modes in which an enlarged circulation can be productive of such an effect, the transactions of the Joint-Stock Banks have been those from which the agricultural interest has derived the smallest benefit, in proportion to the risk of improvident issues which it shares in common with the other productive classes.

Large however as have been the speculations which have stimulated or been based on the issues of the Banks in question, it is not contended that there is any thing fictitious or inconsistent with legitimate trade in the great extension of manufacturing and mercantile operations which has recently taken place.

And if, as those most conversant with the subject, do not hesitate to predict, in consequence of the usual effect of a greatly increased circulation, the prices of all commodities should rise, till gold, becoming the cheapest article of export, the result shall be a necessary contraction of its issues by the Bank of England, and possibly a recurrence in some degree of that which took place in 1825; not only the prospects of the agriculturists, as far as they are connected with the foregoing causes, will fall to the ground; but it will also appear as if there were something in the present monetary system of this country which is inconsistent with the due development of its active industry and with the employment of its capital and resources to the extent which the means of the country would warrant, and which the wants of its population would seem to demand.

On all these grounds, encouraged rather than checked by passing events, the Committee cannot hesitate to urge upon the House the deliberate but serious consideration of the real state of the agricultural interest, such as it has been, such as it unquestionably remains at the present time, and such as a reasonable view of existing causes would determine to be its future prospects.

It appears to them, from the magnitude of the interests involved, and the feelings which have been developed, that even if it were just it would not be practicable to shut our eyes to its condition. It is the largest interest in the state, comprising, with its dependencies, according to some calculations given in the evidence, not less than five-sixths, according to others more than half, but at all events constituting a largely preponderating portion of the entire community; it is the class the most patient, and the one perhaps the most deeply attached to the ancient institutions of the country; but it is also the one with which the prosperity of every other class is inseparably interwoven, and which cannot be permanently, and, as some have argued, irremediably, depressed without results involving in imminent danger the very foundations of the state.

The Committee therefore conclude with expressing their confident hope, that besides adopting such present remedies as may appear just or expedient, the House will keep steadily and anxiously in their view the consideration of this the greatest question which can occupy their attention; in order, as circumstances may arise, to afford to the agriculturists of this kingdom that protection or relief which a just consideration of their situation in all its different bearings still continues imperatively to suggest.

In the American papers last received we find a very general anticipation of diminished wheat crops throughout the union. This applies to the southern as well as to the northern states. One of the New York journals

says—"The reports from all parts of Maryland, with regard to the grain crops, are discouraging. They all speak of great damage to the wheats by the Hessian fly, and many represent the destruction as total. The accounts from the western part of Virginia are of the same tenour. Letters from Washington county, Maryland, the best district for wheat in the state, represent the crop as seriously injured. In Lancaster county, Pennsylvania, the crop is not expected to be equal to one-fourth of an average crop; so also in the adjoining counties of Pennsylvania. The wheat crops in the state of Delaware are represented to be equally unpromising." The *Virginia Free Press* says—"It is painful to look at the blighted wheat fields of this region. The prospect is absolutely appalling. During the last three weeks vegetation has had the appearance of actually receding, and the ravages of the fly have been so fatal, that in many places the naked earth is presented, shorn of the rich verdure which for a while covered its bosom. The late rains have refreshed and invigorated other crops, but the wheat is beyond redemption."

#### EXTRACTS FROM LAWSON'S USEFUL WORK, THE AGRICULTURIST'S MANUAL.

**TREE OR COW-CABBAGE.**—Habit of growth, strong and upright, with numerous branches, and rather small and thin, smooth, vivid green-coloured leaves, stalks and branches very hard or woody, except towards the point, roots large and spreading, average height about five feet; but in very deep rich soil, the plants will often attain double that height before beginning to shoot or run to seed. In Jersey, and some of the northern departments of France, where this variety is chiefly cultivated, the longest of the stalks are used for supporting kidney beans, peas, &c., and also as cross-spars for the purpose of supporting the thatch or roof of the smaller class of farm buildings, cottages, &c., and when kept dry, are said to last upwards of half a century. (For farther information, see Loudon's Gardener's Magazine, and Encyclopedia of Agriculture.) This variety is also known by the following names:—Chou Cavalier, Chou a Vaches, Branching Cabbage, JERSEY KALE, &c. The produce of seeds of this last variety, however, which were procured from France, seems to be slightly different from the true Cow-Cabbage, and to occupy an intermediate space between it and the thousand-headed cabbage. Another variety received from the same quarter (and said to be only of recent introduction), under the name of Chou Laponic, Lapland Cabbage, seems to differ very slightly from the Cow Cabbage, and may be considered as only a very slightly improved variety.

In Museum, specimen of a stalk of Cow Cabbage 11½ feet in height, by the Very Reverend Principal Baird.

**CULTIVATION OF THE CABBAGE.**—Much has been said and written recommendatory of the cabbage tribe being more extensively subjected to field culture in this country, for feeding cattle, sheep, swine, and even poultry; but, judging from any trials which have been made, as well as from the natural habits of the whole tribe, their culture seems only likely to be attended with any chance of decided advantage on the most superior class of soils, particularly on such as are of rather strong texture, and where an abundant supply of manure can be had; and even in many such cases it is questionable how far they ought to be preferred to turnips, over which, however, they possess the advantage, as has been already hinted at, of improving, rather than deteriorating, the quality

of the milk of cows fed upon them, and also of growing freely on lands which are too stiff in texture for the growth of any sort of turnips.

In field culture, the cabbage tribe may be planted in March, or in May and June, the plants in the former case being the produce of seeds sown in the previous autumn, and in the latter case they may be from seeds sown in February or March immediately preceding. The young plants should be dibbled in on the top of drills prepared in the same manner as is usually done for turnips, with the addition of a slight rolling, to level or smooth down the tops; the drills may be made at the distance of two feet, and the plants placed at the distance of fifteen or eighteen inches in the row, increasing or diminishing the width and distance, according to the size and habit of growth of the variety (at the distance of two feet by one and a half, 14,500 to 15,000 plants will be required for an imperial acre). The after culture of hoeing and weeding is the same as is required in other drilled green crops. The Cow Cabbage, Kale, and other open-headed varieties, will yield a regular supply of leaves from the time when the plants are from one to two feet in height, which are obtained by stripping off the under tiers successively, until the entire crop be taken; but in the case of the other cabbages, stripping off the leaves, if at all attempted, should be done with more caution, otherwise the swelling and firming of the heads will be materially checked. These last should be all off the ground before the winter sets in with severity, otherwise the outer leaves are apt to become injured, in which case they, as well as decayed leaves at any period, should never be given to milch cows, as they impart a disagreeable taste to their produce. The open-headed sorts, however, may be allowed to remain on the ground with less danger of being injured, until they show symptoms of running to seed, after which period they, together with all the Brassicae, become very exhausting to the soil, a disadvantage which, in rather a considerable degree, is said, and seemingly not without good cause, to attend the Cow Cabbage, and some of the other large varieties, at all periods of their growth.

KENT.—MR. PALMER'S PUBLIC RAM LETTING.—On Friday, July 1, the public ram letting of Mr. John Palmer, Herne-common, took place, and attracted a large number of gentlemen connected with agriculture and grazing from various parts, West Kent contributed its quota on the occasion. There were present T. T. Hodges, Esq., M.P., R. Etwall, Esq., M.P. for Andover, &c. A spacious awning was erected in the paddock, where about one hundred gentlemen sat down to a cold collation that had been prepared for the occasion, consisting of every delicacy the season affords, with a profusion of choice wines. Mr. Harrison, of Dover, acted as auctioneer, and performed his duty admirably. The successful competitor for the two best rams was Mr. Hodges, at 12l and 14l. All the sheep were greatly admired for their symmetry, condition, and the fine texture of the wool. On the health of the wool buyers being proposed, Mr. Homersham rose, and after returning thanks for the compliment, offered Mr. Palmer 22l a pack for his wool, which was considered a fair price and accepted. Several other sales were also made varying in price. On the health of Mr. Palmer being given, that gentleman returned thanks for the compliment that had been paid him, at the same time he must disclaim any credit to himself in the perfection to which his rams and ewes had been brought; to Mr. Goord was due the credit, for that gentleman was the original breeder and feeder of the class of sheep. Mr. Hodges, Mr. Etwall, and several other gentlemen addressed the party, upon topics connected with agriculture; and at eleven o'clock the whole dispersed highly gratified with the day's proceedings.

## ON THE BETTERING OF THE LOWER CLASSES.

TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—As your useful magazine is so universally circulated through the class of farmers, and read by many others who take interest in the above subject, I have taken the liberty of addressing this letter to you, hoping that, being a promoter of happiness and content, you will allow me a small space in your valuable columns.

In general the poor are now very discontented at they know not what—I mean by the poor, the class of labourers. They complain of their masters without cause—they cry out against the times for being bad, and in short they are always finding fault and complaining. Now, what does this arise from? real want?—No. There are two things which occasion it: first, Beer-houses; next, Idleness. When a man gets a few halfpence, he leaves his work and goes to the public house, where for a penny he not only gets half a pint of beer, but an hour's gossip. This of course promotes idleness, and both being combined, cause discontent and murmuring.

Drunkenness is one of the worst faults man can be guilty of. In the first place, it is so selfish. A man, instead of taking his money home to his wife and children, spends it on beer, which only gratifies himself. He does not carry the beer home—his beer would have no relish, if it was not for the gossip which attends it. This is the principal cause of so much idleness, and idleness is the root of all evil. Many a man when brought to the gallows, has confessed that idleness was the cause of it. The Devil always flies to the idle first, because they are most easily tempted into wickedness.

How is all this to be prevented? Nothing will tend to prevent this more than the principal inhabitants in the parish endeavouring to make them what may be called little farmers—let them have a piece of ground at a moderate rent, and let them till this themselves.

Some people might suggest the plan of the gentry subscribing and letting them have it rent free. But no, for then they would not take the trouble to cultivate it. Let them pay a moderate rent; for instance, from fifteen shillings to one pound per acre. This will enable them to grow some meat for the pig, or horse, or cow. Another good preventative against the evil I have spoken of, is the circulation of books concerning agriculture, and also books on religious topics; for unless they have God's grace in their hearts, they will try but in vain to succeed in their undertakings.

I will conclude my letter by hoping, Sir, that I have not taken up your valuable time more than it is possible, and wishing that my plan may be thought of and adopted by those who wish for the interests of the poor,  
I remain your most obdt. servt.

D.

CURIOUS PLANT.—In the island of Cuba there is a plant which emits such an intense perfume as to be perceived at the distance of two or three miles. It is of the species *Tetracera*, and remarkable for bearing leaves so hard that they are used by the native cabinet-makers, and other mechanics, for various kinds of work. It is a climbing plant, which reaches the tops of the loftiest trees of the forests, then spreads far around, and in the rainy season is covered with innumerable bunches of sweet smelling flowers, which, however, dispense their perfume during the night only, and are almost without scent in the day-time.

**FUNGUS HÆMATODES IN A POINTER.**

By Mr. R. ADAM, Beaufort, Invernesshire.

(From the Veterinarian.)

In the month of March last, a valuable pointer dog was sent to me, quite emaciated, with total loss of appetite, and with a large fungus hæmatodes about the middle of the right side of his neck. It had begun to appear about five months before, and was not at first larger than a pea. I gave him ʒiiss of Barb. aloes, followed soon afterwards by ʒi of castor oil, which caused the discharge of a great deal of fetid matter from the intestines, after which there was a marked amendment in the system.

At the end of three days, I removed the tumour with the knife: there was a full discharge of healthy matter from the wound; and during the period of its healing, the animal had a diet of soup and rabbit-meat, and tonics of iron, &c.

In a little more than three weeks, the wound had completely filled up by granulation; and he was sent home, to all appearance quite well.

At the expiration of three months, another tumour made its appearance near the former one, growing fast; and by three days from its being first seen it had attained to near the size of the former one. I removed it immediately, ordering a change of food, and tonics: it appeared at first to go on favourably towards healing; but five days after the removal of the second one, another tumour made its appearance, near the seat of the former ones.

I removed that also; but at the expiration of another five days, the animal was sent up to my house quite unable to walk, with very laborious breathing, and cold extremities. I gave him a cathartic, and bandaged the legs; but during this time the wounds made no progress towards healing, and at the end of three days he died.

In exposing the cavity of the thorax, the lungs were almost covered with variously shaped tumours, from the size of a pigeon's egg to that of a small pea; the intercostal muscles had a great many of these adhering to them, and a few small ones were adhering to the heart. There were three of these on the diaphragm, in the centre of one of which matter was formed. The blood-vessels, kidneys, &c. were free from disease, as also the brain, and the animal retained his senses to the last.

These tumours were white, or nearly so; pretty hard, and of a glandular substance. The external ones were softer, redder, and almost destitute of blood-vessels, except the first, which bled considerably. There was dropsy of the abdomen.

**SALE OF DOGS BELONGING TO THE LATE DUKE OF GORDON.**

On Thursday, July 7, the kennel of dogs belonging to the late Duke of Gordon was sold by public auction, by Messrs. Tattersall. The value of a race-horse, a hunter, or roadster, is ascertained by their respective performances on the turf, the field, or the road; and a pack of hounds is valued by the character they have obtained in the country they have hunted. The miscellaneous collection in this instance offered to the public were brought without reserve, or previous preparation, to the hammer, having only arrived from Scotland by steamer at 12 o'clock on Tuesday night, and we believe the prices they produced are unprecedented. The following correct account will be interesting to our sport-

ing readers. The whole of the arrangements connected with the sale were under the superintendance of Mr. Burgess, a friend of the late Duke of Gordon.

HORSES AND DOGS LATE THE PROPERTY OF HIS GRACE THE DUKE OF GORDON, DECEASED.

		£.	s.	d.
62	The celebrated black fast trotting mare.....	Marq Breadalbane	194	5 0
<b>GREYHOUNDS (STALLIONS).</b>				
1	Horatio, a red dog.....	Lord Douglas....	8	8 0
2	Bachelor, a black dog.....	Mr. Salter.....	5	15 6
<b>BROOD BITCHES AND WHELPS.</b>				
3	Havock, a black bitch.....	Mr. Hodges.....	3	13 6
4	Two whelps.....	Ditto.....	2	0 0
5	Two whelps.....	Mr. Spooner.....	2	12 6
6	Two whelps.....	Lord Douglas.....	3	3 0
7	Carly, a red bitch.....	Mr. Grove.....	2	2 0
8	Two whelps.....	Mr. Ahlerson.....	0	10 0
9	Two whelps.....	Mr. Grove.....	0	5 0
10	A whelp.....	Mr. Hodge.....	0	5 0
11	Breeze, a blk-and-white bitch	Ld. Southampton	5	5 0
14	Vestris, a red bitch.....			
15	Two black whelps.....			
16	Two black whelps.....	Colonel Whaley..	11	11 0
17	Two black whelps.....			
18	Wish, a black-and-white bitch	Lord Douglas....	15	15 0
19	Two whelps.....	Mr. Jervis.....	2	2 0
20	Two whelps.....	Mr. Martyn.....	1	11 6
21	Two whelps.....	Mr. Burgess.....	2	2 0
22	Vauldress, a red bitch.....	Lord Chesterfield	53	11 0
23	Vi trix, a black bitch.....	Marq Breadalbane	22	1 0
24	Victor, a black dog.....	Lord Vernon.....	31	10 0
25	Volant, a red dog.....	Ditto.....	43	1 0
26	Venus, a fawn bitch.....	Lord Lisburn.....	15	15 0
27	Heather Bell, a black bitch.....	Lord Vernon.....	11	11 0
28	Highland Lassie, a brown dog	Marq Breadalbane	25	4 0
29	Highland Lassie, a fawn-and-white bitch.....	Mr. Martyn.....	21	0 0
30	} The Trainer's.....			
31	}.....			
<b>PUPPIES.</b>				
32	Vivid, a black bitch.....	Lord Lisburn.....	38	17 0
33	Valiant, a black dog.....	Mr. Hodges.....	21	0 0
34	Vesper, a black bitch.....	Ditto.....	21	0 0
35	} The Trainer's.....			
<b>SETTERS.</b>				
1	Duke, a black-and-tanned dog	Marquis Abercorn	35	14 0
2	Young Regent, black-and-white tan.....	Lrd Chesterfield.	75	12 0
3	Juno, a black-and-white bitch	D. of Richmond..	35	14 0
4	Saturn, a black dog.....	Lord Douglas.....	58	16 0
5	Crop, a black-and-white bitch	Lord Chesterfield.	63	0 0
6	Duchess, a blk-and-wh bitch.	Mr. Martyn.....	38	17 0
7	Random, a red-and-white dog	Ditto.....	36	15 6
8	Princess, a blk-and-wh bitch.	Mr. Walker.....	20	5 0
9	Bell, a black-and-white bitch	Mr. Martyn.....	35	11 0
10	A puppy.....	Lord Douglas.....	15	15 0
11	A puppy.....	Mr. Robertson...	15	15 0
<b>RETRIEVERS.</b>				
1	Bess, a liver-and-white bitch	Lord Abercorn...	48	6 0
2	Rover, a liver-coloured dog.	Mr. Martyn.....	24	3 0
3	Diver, a liver-coloured dog..	Ditto.....	41	2 0
<b>DEER HOUNDS.</b>				
1	Roden, a bloodhound dog.....	Marq Breadalbane	16	16 0
2	Tigress, a bloodhound bitch.	Ditto.....	6	6 0
3	Fly, a red deerhound bitch...	D. of Buccleuch..	10	10 0
4	Blue Bell.....	Marq Breadalbane	6	6 0
5	A black-and-white spaniel....	Mr. Huffam.....	16	5 6
<b>TERRIERS.</b>				
1	Pottoek.....	Lord Vernon.....	5	15 6
2	Tartar.....	Mr. Moreton.....	6	6 0
3	Waspey.....	Ditto.....	21	0 0
4	Tucker.....	Mr. Rothschild..	18	18 0
5	Rose, a puppy.....	Mr. Southerton...	14	3 6

£1,212 10 6

30, 31, 35, are the property of the Duke of Gordon's old trainer, Edward Cox, and will be sold after the Duke's dogs.

## RETROSPECT OF THE WOOLLEN TRADE.

LEEDS, JULY 14.—The mercantile operations of this district during the last two months have afforded little matter for novelty in the way of general comment. Our mills and manufacturers continue in full activity, and if a complaint be heard from that quarter it is only that workmen are difficult to procure, or difficult to manage when procured. This inconvenience is felt more in some sorts of employment than in others, perhaps most in the weaving of certain descriptions of low goods for Continental consumption, and the circumstance may prove a useful lesson for the future, if rightly interpreted; for of all the various branches of industry employed in the woollen manufacture, this one has perhaps in comparison been least adequately rewarded at any time, and yet it is just the one which has suffered most by reductions in wages during the last half dozen years. The natural consequence has ensued: these weavers have been driven to seek employment in other branches so often as opportunity offered, and few new hands have been taught; so that now, when work is plentiful in other kinds of weaving, the manufacturers of these particular goods find themselves deserted, and cannot get their work out. Manufacturers who are so prompt to seize upon every casual opportunity for depressing wages, not from actual necessity, but simply because the opportunity offers, may thus find out that such a proceeding is not less opposed to the dictates of justice and humanity than it is to their own permanent interest.

The necessity of meeting foreign competition is the plea usually urged in extenuation of this practice, but it is merely a pretext; for if foreigners really want our goods they will pay for them, whether our workmen earn a comfortable subsistence or starve upon a miserable pittance; and if they do not want them, they will not be induced to become purchasers by a mere sacrifice of the difference. Moderate stability of price is the main thing to aim at for ensuring a steady foreign demand: it relieves the importer from all apprehension of loss by sudden fluctuations; and nothing is more calculated to maintain such stability than a resolute endeavour to keep up a fair rate of remuneration to the workman for his labour. But the very parties who are thus prone to reduce wages, are ready enough to launch out in moments of undue excitement, and encourage a local advance in the price of the raw material which no reasonable man will venture to regard with confidence. The real competition which produces these opposite effects is that which exists among English manufacturers themselves, stimulating each individual to supplant his rival neighbour by forestalling him and underselling him. First, profits are lowered, and more business must be done to produce the same amount of return at the year's end; then, wages are attacked, and the labourer must perform more work for the same amount of necessary remuneration. Hence an extraordinary demand for raw material which raises its price, and a production of goods which glut every market. No one is benefited; and in the end a convulsion takes place by which all suffer.

The same plea by which this pernicious system is encouraged, serves also as a pretext to justify the abuse of infant labour. Foreign competition, again, is the hughbear, and we are required to believe that if we do not use our children as mere animated machines, and extract from them the work of adults without regard to their moral and physical development, then is the glory of manufacturing England departed.

They are lying impostors who profess to act upon this motive; their hearts are in their breeches' pockets, and they are supported by men whose heads are so crammed with theories that no room is left for facts. Their political economy is akin to that of the South-Sea Islanders described by Mr. Earl, who used formerly to kill the major part of their female children and eat them; but after European ships began to visit them, they found it more profitable to let their female children grow up. The Germans seem likely to become our most formidable competitors abroad; but no people upon the face of the earth have a more tender regard for their offspring than the Germans have; they would no more think of sacrificing their children for profit than they would think of killing and eating them.

The last generation of workmen committed themselves by opposing the introduction of machinery: they insisted upon continuing to perform operations which machines were found to perform better, and quicker, and cheaper. They fancied they were called upon to yield up their means of existence, and could not be persuaded that the demand for labour, on the contrary, would actually increase beyond all calculation as it has done. This was their fatal error; and if the manufacturers of the present generation were brought to regard the men, and women, and children in their employ merely as so many machines, their error would not be less fatal. There is no limit to the application of machinery; if one machine can be made to do the work of twenty men, experience shews that the very improvement opens out fresh sources of adequate employment for human labour. But nature herself has imposed a limit upon human endurance, and will not suffer her laws to be violated with impunity: the law of expediency which requires child or adult to perform the work of two for the wages of one, is the law of the strong against the weak, by which any species of iniquity may be justified. Such laws fail even of their professed object: competition is not diminished, but is released only from the natural restraint of justice and humanity which might otherwise keep it within reasonable bounds; and in the end it is found that all the sacrifice has been made to the prejudice of the labourer without one farthing of advantage to the employer.

The transactions in our Cloth-Halls would afford a very inadequate criterion of the activity which now prevails. In the earlier months of the year public markets were brisk, but during the last two months the demand has fallen off considerably. There is nothing extraordinary in this: it is but the usual trade of the place subject to the usual ebb and flow, as seasons come round and markets get supplied. Yet there is no indication of any accumulation of stock in the Cloth-Halls; on the contrary, the manufacturers have no lack of orders for as many goods as they choose to undertake for private delivery. The source of this unwonted demand is the supply of the United States and China, to the markets of both which countries shippers have been made all the year to an extent wholly unprecedented. How far the real effective demand for consumption in those countries may prove adequate to absorb these extensive supplies remains to be seen; for it is by no means to be inferred that the latter are founded upon legitimate evidence of the former, or that there is any real connection between the two in the relation of cause and effect. The trade to these countries is now done almost entirely through the medium of consignment agents who have no identity of interest with the consigning party and share none of the risks. All that can be said with certainty at a period when extensive operations are going on is,

that the consignment-drummers have been successful amongst the manufacturers, and that they have secured to themselves a plentiful harvest of commissions, which is all they have to care about. A period of unusual excitement is their sunshine: the manufacturer yields to the pleasing influence, looks around him with complacency, regards the scene of activity with confidence, and becomes an easy dupe: with the deluding consignment-drummer on one hand, the seducing *fury-sheep-parcain* wool-dealer on the other, and the liberal joint-stock banker in his rear, he cannot hesitate to follow the example set before him, and away he jumps—just as one sheep jumps after another even into the butcher's shop. The results of such experiments are tolerably uniform even in ordinary times: the commission-agent pockets his handsome per centage, and the consigner loses his money. It might naturally be thought that the agent who thus plucks his victim must soon find himself in the situation of the boy who killed the goose that laid the golden eggs. But we live in a wide world, where geese are very numerous, and very pretty geese they are too.

The American trade was once principally an order trade, and yet has thus fallen into the monopolising hands of consignment-agents; for no importer who honestly buys his goods and honestly pays for them can ever stand up against such sales as these vampires make. The China trade is altogether new; a mere experiment how far we may be able to establish a simple, unreserved commercial intercourse with the most artificial, reserved, and obstinate people in existence. Whatever may be the event, it is quite certain that thus far we are going entirely upon speculation, and that some length of time must even yet elapse ere we can know whether we are doing well or ill. Whether it be wisdom or folly to enter upon such a speculation to such an extent, and under such circumstances, is a preliminary question about which there may possibly be two opinions.

One thing, at all events, is satisfactory as far as it goes. The Leeds manufacturers are not the speculators in this case: they supply the goods to order; and therefore, unless their terms of credit should be unusually long, they cannot be much affected by the result of the speculation, whichever way it turn.

Goods for the China market are made chiefly of English wool, the price of which, consequently, remains very high. Foreign wool has experienced no fluctuations worthy of particular note, and the supplies this year have been abundant. The quantities ordered for consumption up to the end of May, this year and last, are as follow:

	1836. lbs.	1835. lbs.	Increase in 1836.
Bristol.....	114,110	112,129	1,981
London—Spanish.....	1,016,890	675,116	341,774
Australian.....	649,461	654,720	.....
Other Sorts.....	8,210,302	4,516,651	3,693,651
Hull.....	6,813,054	2,297,975	4,515,079
Increase in 1836.....	.....	.....	8,452,485
Decrease in Australian.....	.....	.....	5,229
Total.....	16,803,817	8,356,591	8,447,226

This, therefore, may be regarded as the state of things up to the advent of the new clips, which are both plentiful and good. That of New South Wales is estimated at one-third more than the clip of last year, and is greatly improved in condition and quality.

The result of the German wool fairs has been highly satisfactory. First in order of time and in importance stands the fair of Breslau, respecting which we quote Mr. Sigmund Hess, a respectable wool-broker, whose

circular report is dated 3rd June. His opening snacks of the age of German chivalry; probably he had been reading the *Zauber-Ring* :—

“After the skirmish in the last October fair, when however, it is well known that no heroic blood was spilt but only such as lacked capacity for battle and resistance, the wool trade soon resumed a firm position. Those who took advantage of this flatness by purchasing on moderate terms, saw their operations crowned with the best result; others who had courage to hold out found themselves richly rewarded; for the previously despised stocks were soon diligently sought up, and higher prices were bid for them. At the same period more favourable accounts were received from England: extensive supplies for the Spanish army raised the prices of the lower wools, and much of this description, of which the stocks were largest, went at higher prices to that great market of the world. The demand for fine and middle wool was not less on the increase. Some English merchants of consideration, who had passed nearly the whole of Autumn here, made extensive purchases with the best result; and in the month of January our warehouses were cleared out of Silesian wools, whilst the stocks of good Polish hog wool remained also of little consequence and met ready sale.

“This sound and solid progress of the trade could not fail to direct the attention of speculators to the ensuing clip. So it came to pass that by the month of March nearly 15,000 cwt. of Silesian wool was already disposed of, partly to hands whose circumstances do not compel them to offer it over again. At a later period the growers raised their demands, and contracts sustained a check, which was confirmed by fiat accounts from England. Up to April, for instance, the imports into London had been 6,565 bags, and into Hull 5,121 bags, of which 3,015 bags were from Germany, and prices suffered some depression. In Hamburg things were equally still; the fairs of Frankfort O. M. and Leipzig did not turn out well for the wool trade, and over sanguine hopes began to waver.

“In Austria almost every large lot, Prince Esterhazy's amongst the rest, had been early contracted for at high prices. In Poland, also, and in other wool growing countries, large quantities of wool were disposed of on the sheep's backs, partly at prices which left small chance remaining. Our speculators in Silesian wool had, however, gone carefully to work; and, from the universal reputation enjoyed by this produce, they could regard the approach of the fair with calmness.

“The fair began this time somewhat later than usual, and supplies came in sparingly; so that up to the 25th May they did not amount to more than 5000 cwt, half the entire quantity being the usual proportion offered for sale by that time. By the 30th May about 5000 cwt had been sold to Hamburg houses and inland manufacturers. The English wool dealers held back, the state of trade in their influential markets not permitting them to give prices so high. Bad weather, also, kept many buyers away, and most of the wool came in a wet state which gave it a somewhat unfavourable appearance. Yet many flocks which have become favourites in consequence of their quality and good management were sold soon after their arrival at eight to twelve dollars advance upon last year's prices. Some of the best bred flocks did not yet meet their merited appreciation. Silesian wethers were a very favourite article, and were almost entirely cleared off at high prices. Good Silesian middle hogs up to 92 dollars were also much in request: one large spinning establishment bought them very freely if they possessed any thing like the requisite properties. Fine wools above 105 dollars, and mid-fine at 100 dollars were considered too high in proportion, and were less in demand.

“The 1st of June was a very busy day, when nearly 10,000 cwt. changed hands: the growers moderated their demands and freely accepted offers which they had previously refused.

“The quantity shorn was twelve to fifteen per cent. less than last year. Prices, on the average, were five to six dollars higher than in the last fair, but the wool was



almost universally so well washed, and so light, that these advanced prices are neither an advantage to the farmer nor a disadvantage to the manufacturer.

"The washing and management of the Silesian and Polish wools, notwithstanding the unfavourable weather, were exceedingly good, and did full credit to our active sheep breeders. There certainly remains at this moment a moderate quantity unsold; but the greater part, with somewhat of a moderation in tone, will in all probability yet find purchasers, and the result of the fair may be considered fully satisfactory."

The prices given in this circular range from 65 to 70 dollars for the lowest sort, to 135 to 150 dollars for Silesian Electoral. We hardly know what to make of the "supplies for the Spanish army" from England, the report of which, it appears, formed one of the elements for getting up the steam in Germany early in the year. We presume the "army" meant must be that most respectable body of men the foreign mercenary legion: they have a uniform, certainly, and it is buff; but it is not made of German wool. These speculators are cunning fellows at a pinch, but really that pinch is a hard one sometimes.

We have drawn thus largely upon Mr. Hess, because the Breslau fair takes the initiative, and in a great measure rules the succeeding fairs. For us and our translation we say nothing: we are no Austin—we speak not of a wool-man, but of a Lady—and even she might be puzzled what to make of "Dominal-Ausschuss" and "Schweis-Wolle." With the remaining reports before us we must deal more comprehensively:—

LANDSBERG.—"By the 9th June about 16,000 cwt. of wool had arrived, all of which was disposed of at the prices wished for by the sellers. In consequence of the unusually large assemblage of buyers from England, France, and Germany, sales were concluded with great rapidity. The most extensive purchases were made by houses from Leipzig, Eisenach, Langensalza, Berlin, Magdeburg, Bradford, &c.; and by the 9th June, when according to the almanack the fair ought to begin, it was already over."

STETTIN, June 15.—"Up to yesterday noon there was great activity, and much was done. From that time downwards the transactions became weaker and flatter. What remained this morning, but little only, had to be offered at lower prices than had been previously insisted on, or is now destined for the Berlin fair. The advance in price since last year has been confined to wools which were particularly well washed, and of this description, unfortunately, the proportion was not large. In general, and on the average, these wools cannot be quoted over three to five dollars advance for all middle and fine sorts. Very low and ill-bred wools were rather lower than last year."

BERLIN, June 24.—"The quantity brought to this year's fair, including 2000 cwt. left over from last year, was about 48,000 cwt. The washing and general treatment of the wool were quite satisfactory. The principal purchases were made on the 20th, 21st, and 22d. There was no lack of buyers: the number was greater than last year: from England, France, Austria, the Netherlands, and Saxony, in addition to the inland merchants and manufacturers. Of the quantity sold, about half might be taken for inland, and the other half for foreign destination. The most favourite qualities were the fine-middle and middle, which fetched two to five dollars per cwt. more than last year. The extra-fine and fine sorts experienced a small advance more rarely: great part of them were sold at last year's prices, and even lower. The same may be said of good ordinary. Ordinary went off mostly at two to four dollars per cwt. lower than last year. The stock remaining on hand this day is 8,000 to 10,000 cwt., almost all in second hands, of which, however, the smallest portion consists of fine middle and middle wools. Although the fair may be considered pretty well at an end, much traffic may yet be expected which has hitherto been put off by the unfavourable weather."

We now give a statement of the quantities brought to the principal fairs, comparing them, as far as we possess the means, with the corresponding quantities in the two preceding years:—

	Quantities in cwts.		
	1836	1835	1934
Breslau—from Silesia .....	30,000	35,797	32,748
The Duchy of Posen .....	9,000		
Kingdom of Poland .....	4,000	15,301	11,588
Austria and Bohemia .....	1,500		
Total, about .....	44,500	51,102	44,336
Berlin .....	48,000	40,000	35,000
Stettin .....	24,000	20,453	24,000
Landsberg .....	16,000		
Warsaw .....	10,000	15,000	
Leipzig .....	6,833	6,627	
Gotha .....	1,200	1,600	315

For a comparison of prices we take the report of the Berlin fair, which, coming three weeks later than the Breslau fair, has the test of experience to recommend it:—

	Rix-Dollars per cwt.			
	1836	1835	1834	1833
Ordinary .....	26 to 48	40 to 50	42 to 47	47 1/2
Good Ordinary .....	53	75 to 60	75	62 to 73 1/2
Middle .....	80	95 to 82 1/2	95	85 to 92 1/2
Fine Middle .....	96	100 to 92	96	92 1/2 to 95 1/4
Fine .....	105	110 to 100	105, 105	112
Extra Fine .....	115	120 to 115	125 to 130	140
Some very superior parcels	135	140 to 150	170 to 150	160

Three Rix-Dollars per cwt. are about equivalent to 1d per lb.

Taking into consideration the improved condition of the wools this year, we think it would require a very sharp eye to discover any sign of real advance in these accounts. Perhaps the powers of the microscope might even detect a decline. We regret that it is yet out of our power to announce any further progress in the application of that instrument to the investigation of wool. Beyond a querulous allusion at a public meeting, nothing, absolutely nothing, we grieve to say, has been effected. But we trust the Philosopher has not altogether laid aside his hobby in despair. Perhaps the newly discovered "Sapphires" might prove serviceable. But the colour may be objectionable: nasty colour, that blue; and *pour comble de malheur*, the discoverer is blue too. Yet we hope the Philosopher will bestir his Pegasus again:

"And when he next doth ride abroad,  
May we be there to see."

The wool trade in Leeds continues to maintain the same progressive character. The Anglo-German migratory tribe of dealers are still on the increase, and it were in vain now to think of counting them even by noses. The settlers and "natural-born" of the other creed regard the irruption with much philosophy: they beslime the children of Israel with civility to their faces, and abuse them like Turks behind their backs. The Synagogue opposite the Court-House in Park-row must be enlarged, the Carpenter is already at work.

Two months ago we gave a tabular view of the progress of the foreign wool trade and of our exports of woollen goods for some years past. We are prepared to find that our exports of woollens this year will exhibit a further increase at least equal to that of last year over the year preceding, and shall be happy to find the amount of profit in the same proportion.

THE WOOLLEN TRADE.

The usual annual returns of the various branches of our wool trade and woollen manufacture were on Monday delivered to members of the House of Commons. On a comparison of these returns with simi-

lar accounts for former years, they present a very gratifying record of the growth and prosperity of this important branch of national industry, of which, we think, it may be both advantageous and interesting to offer a distinct analysis.

The total quantity of wool imported into the United Kingdom, in the year 1835, was by weight 42,208,949 pounds, which is rather more than 4,000,000 pounds under the importation of 1834; but on 5th of January 1835, 6,494,266 pounds remained warehoused under bond; whereas, on the 5th of January, 1836, there were no more than 2,846,014 pounds so locked up. This is an important difference of stock on hand, which, no doubt, has tended, and will tend to keep up the price of the article. The country from which we import the greatest quantity of wool is Germany. In 1835 the amount was nearly 24,000,000 pounds weight. From Russia, to which our exports of manufactured woollens is comparatively small, we imported upwards of 4,000,000 pounds; from New South Wales and Van Diemen's Land, taken together, about 200,000 pounds weight more than from Russia. The next largest importations are from Spain, Turkey, and Italy, which, taken together, supply us with nearly 4,000,000 pounds. Portugal furnishes 683,000 pounds; Holland, 301,000 pounds; and Belgium, 231,000 pounds. Of the foreign wool which we have imported, we re-exported in its unmanufactured state 4,101,700 pounds during 1835. And of the total quantity imported in 1835, we retained for manufacture 41,718,514 pounds. This is nearly 1,000,000 pounds more than was taken up by the manufacturers in the preceding year.

The whole amount of British wool exported in 1835 was 4,642,604 pounds, and of this 3,000,000 pounds were sent to Belgium, and 1,500,000 to France.

In the year 1835 the "declared value" (which, be it observed, is a real thing, and very different from the "official value," which is of no use except as an indication of quantity),—the total declared value was 6,840,511*l.*; and of this amount upwards of 2,600,000*l.* worth of woollen goods went to the United States alone. Next after the United States in the scale of our customers for woollens comes the East Indies and China. To these we send the value of upwards of 800,000*l.*; to our North American colonies the value of 418,000*l.*, and to the West Indies 114,200*l.* worth.

In Europe, our best customer is Germany, which, in 1835, took 631,000*l.* worth. Besides the more fully manufactured goods, Germany took from us in the same year 1,191,000 pounds weight of woollen yarn. Of European customers, next after Germany comes Portugal, which took, in 1835, to the amount of 363,000*l.*; Holland, 245,629*l.*; Italy, 243,382*l.*; Belgium, 123,727*l.* Russia took only 93,025*l.* worth of woollen goods. The South American States begin to be good customers; Brazil took, in 1835, 337,788*l.* worth, and Mexico and the other States, 356,700*l.* worth.

Looking at the aggregate, the export of 1835 was fully a million sterling in value above that of 1834; but as the price was higher in 1835, this is no certain guide to the proportion of increase in quantity. In the year 1835 we exported to France only 68,000*l.* worth of woollen manufactures!

We have already stated the exports of woollen goods to the South American States in 1835, the import of unmanufactured wool from these States in the same year, was 2,176,000 pounds, from France it was 101,000 pounds.

We have only to add, as fiscal information connected with the foregoing analysis, that of the wool

imported in 1835, 26,877,730 pounds paid to the revenue a duty of a penny per pound; 10,198,526 pounds paid one half-penny per pound; and 6,397 pounds of "red wool" paid six-pence per pound.

The wool imported from British possessions does not pay duty. Of that there were in 1835, 4,635,811 pounds imported.—*Herald.*

THE GERMAN WOOL FAIRS at Stettin and Berlin appear to have gone off very briskly, nearly all the wool shown being sold, and at prices fully as high and even higher than those realized at Breslau and Dessau. The following are extracts of letters received by mercantile houses in this town, in reference to the fairs of Stettin and Berlin:—

*Stettin, 15th June, 1836.*

About seven-eighths of the wool shown at this fair was sold, but the English were not considered very large buyers. The prices obtained were full as high as those realized at Breslau, viz. about 3d per lb advance upon those of last year; being chiefly in consequence of the numerous contracts made previous to the fair, before the shearing commenced.

*Berlin, 20th June, 1836.*

The result of the Stettin wool fair was, if any thing, still more favourable to the grower than the Breslau fair, for the prices were not only fully maintained, (though the wool was not quite so well washed), but they were higher by about 1d per lb, and almost all the wool which came to the market was sold, except such flocks as were very greasy. The quantity in Stettin was 25,302 cwt. of which one-eighth is unsold. The Berlin fair was a full harvest for the farmers and speculators: not only were the highest prices given there, but you may also add that all the wool which was brought to the market was sold; and those dealers who took their purchases from the Breslau to the Berlin fair disposed of them very quickly, and to a good profit. The quantity in Berlin was 40,000 cwt., of which one-sixth was sold on the 16th, though the fair only begins on the 20th. The prices in Berlin were higher than those at Breslau or Stettin by 1½d. per lb. In the smaller markets, such as New Brandeburg, Lubeck, Magdeburg, Dessau, &c., great competition, particularly amongst the English buyers, was perceivable, for they kept back in the two first fairs, (which are the principal ones), and at last were obliged to go with the stream, or be without wool. There is still the Gasterow fair to come on, but you may depend that the price will be no lower. There has been no year in which less speculative business has been carried on by the English than in the present, and the buyers have all been very cautious.

CANADA.—We congratulate the Farmers of the Townships on the prospects of a permanent cash market for Wool. The B. A. L. Company, offer 2s per lb. for all the native wool of average quality, that may be offered them the present season.—Although the above price is not quite so high as wool now bears in the United States, yet even at that wool growing may be made the most profitable of any branch of farming. But the quality of wool may easily be improved 50 per cent. and the quantity increased in a like ratio, by crossing with improved breeds from England. We doubt not the Land Company will lend their assistance in introducing some from the best breeds of England, suited to this climate. We trust we shall no more hear of flocks of sheep being sold to be slaughtered for their pelts in Vermont.—*Farmer's Advocate.*

## HORSEMANSHIP.

## THE MANEGE.

Adams, a professed teacher of the manege system of horsemanship, describes it in the following words:—"The airs of the manege are certain figures, actions, graces, attitudes, and exertions, drawn from the horse by the art and ingenuity of the master, and may fitly be compared to the figures, steps, graces, attitudes, and exertions of the stage dancers." Which means, in plain English, that the natural paces of the most elegant quadruped in nature are set aside or supplanted for artificial positions and grotesque antics, which strain his tendons and his loins, destroy his speed, and render him incapable of all the useful and superior purposes of life. The manege system of riding is completely useless; yet the professed teachers of the art would have us believe that the positions of the horse and rider are ornamental and graceful in the highest degree: now, any thing so constrained as the airs of the manege can never be consistent with the true and sublime beauty of nature. I have many times endeavoured, but always unsuccessfully, to discover something that would bear the test of examination in it; and I am free to confess, that the antics of a monkey are to me much more interesting, and quite as nearly allied to the sublime and the beautiful, as the cruelly painful and unnatural positions of the horse in the airs of the manege.

However, let it not be supposed, that I am utterly insensible to the gracefulness and beauty of the paces of the horse; on the contrary, what can be so light and elegant as that deer-like action which has been derived in the superlative degree from their Arabian progenitors by our superior horses.

The stiff and nearly perpendicular position, so much and so strongly recommended by riding-masters, is precisely that which is adapted for the manege, but utterly unfit for the ordinary purposes of life, for the hunting-field, or the race-course. In the manege the horse is continually straining unnaturally on his haunches and loins—the weight is all thrown upon these parts. Let us look at the *pesade*, (a manege air), in which the horse gathers his haunches so far under him, that he raises his fore feet and sits or balances himself upon his hocks and hind feet. The rider's position must correspond; and here the toe in a long stirrup, and the stiff perpendicular seat (if indeed seat it can be called) are in unison with the unnatural posture which the horse has been compelled to assume; but how can such positions be applied to any useful purpose? In fact, it is only by a lengthened system of positive torture that the horse can be compelled to perform "*the graceful airs of the manege!*"

Having already observed that a "*high-dressed maneged horse*" is rendered utterly unfit for any other purpose, so it may be remarked of the professors of the manege, that they cannot ride beyond the walls of their schools. In the manege the rider is prepared for the performance of the horse, and whether it be the *pesade*, the *balotade*, or the *capriole*, aware of the very motion which the horse is going to make, he prepares for it accord-

ingly. The *capriole* is the most dexterous and exalted caper that can be drawn from the horse: in this, the animal springs from the ground perpendicularly, and kicks out with his hind feet—this is called *graceful*, a term very often most arbitrarily applied: in the act of leaping (a gate for instance) there may be something graceful, the horse goes at it as willingly as his rider, and often more so, and in the operation calls into action nothing but his own natural and beautiful motions: whereas, in the *capriole*, the horse always goes to work with reluctance, he is forced into the most unnatural action, and indeed nothing but torture can draw the feat from him.—The professors of the manege system admit that such is the exertion (being constrained and unnatural) required in the manege, that the horse becomes completely exhausted in ten minutes.—Here it is abundantly evident that the manege is ruinous to the horse and worse than useless to the rider; yet I shall describe it, in order to enable the reader to form an opinion for himself, and to render this work as complete as possible.

In describing the airs of the manege it will be necessary to commence with the walk, which, in the language of the school, is a relaxation of animation and exertion, lower than the slow disunited trot, while it retains an union which prevents its descending to the action and beats of the natural walk. The legs therefore are lifted as in the trot, or passage; the union, action, and beats constitute the difference. The legs being lifted as in the trot, are, in consequence of union, without animation, taken up gently and put down softly, so that the time is slower than the trot, and the beats flat; a horse cannot lift his legs in the action and time of the natural walk or trot, without advancing over ground proportionable to the length of step, or quickness of action; but in the action of the manege walk, passage, or *piaffe*, he can move his legs in the action, and his feet beat the correct time of either of the airs, without his advancing, which results from the union, which constitutes the difference of position, action, time, &c.

The difference between the manege walk and the passage, is less animation and union, which produces a lower action and languid step, and causes the beats to be flat by the feet not striking the ground so sharp as in animated action. The excellence or perfection of the manege walk consists in a lofty action, where the step and animation are languid, and the regular slow beats of one, two.

A horse must be worked and united to a considerable height before he is put to the manege walk; and when the horse becomes so perfect in the extreme union as to walk the passage air to its greatest height, if you relinquish animation without suffering the horse to disunite himself, you will let the action down to the manege walk.

## THE PASSAGE.

Working a horse sideways from right to left, and left to right, is called *Passaging*; and as the horse cannot do this in an animated style, without uniting himself more than in the trot—whereby the action is raised before and lowered behind, the time slower, and the beats not so sharp—this position,

action, and time, in which the horse works, is called the passage, whether it is worked sideways or straightforward. The position of the passage may be thus expressed:—the fore hand raised, the shoulders out, the croup in, the neck bending a little inward, and the nose a little turned from the perpendicular; the inner side (that to which he is working) is advanced or leads the same as in the gallop; but the feet are raised as in the trot, only lifted higher before than behind. The fore feet being raised higher and retained in hand make a shorter step and slower time, and the action not being so rapid as in the trot, the beats are not so sharp.

To work a horse straightforward in the passage is much more difficult than sideways, as the attitude of the horse is much better calculated for working sideways.

The following are the instructions to the rider for working the passage:—Commence to the right, with a snaffle bridle; collect and separate the reins, turn the horse's head to the wall, bring your right hand down to your body, letting your wrist steadily rest against it, the little finger being of a parallel height with the elbow. This hand supports the position or attitude of the horse, and is never to move but with the body, while you work the horse to the right. The left hand, having the rein of equal length, will be somewhat advanced, to admit the small bend of the neck and turn of the nose. The right being fixed to the body to support the position, the left may be detached, the hand and elbow raised to a parallel with the shoulder. In this situation it operates in the same direction from the horse's mouth as the right, only higher, for the purpose of raising the fore hand, and by those delicate sensations of the fingers, inseparable from a good hand, enlivens the mouth, lightens the appui, animates the horse, and causes the action. The rider's right hip a little advanced, the thigh turned inwards, body leaning a little to the right, stretching the right leg down, your eye always traversing the ground on which the horse works.

The instant you assume this position, the reins being properly collected, with the requisite animations, the horse should be united, supported, and completely balanced in your hands; you work him along the wall, letting the shoulder lead a little.

#### THE PIAFFE.

The position of the horse in the piaffe has little, if any, bend; the horse works straight, and the feet describe only two threads. The piaffe is distinguished from the passage by a more lofty action before, and a dancing of the haunches. The action being higher, and retained longer in the air, the beats are slower, and not so sharp, as in the passage.

Riding the piaffe requires the position to correspond to the motion of the horse, quite upright, the balance true, and the reins so collected as to support the horse in a straight position, and the aids given to support the action with the greatest caution, that you may not alter the position of the horse by throwing his croup off the line: the retention of the fingers will keep the horse on his ground, give him liberty to advance, or make him retire at your discretion.

There is another kind of piaffe, in which the horse plies his haunches, raises the fore foot high, springs from the two feet on the ground, before the others reach it, so that he bounds or darts forward, meeting the ground with a straight knee. The horse advances a little at every bound; the action is abrupt and unpleasant.

#### THE PESADE.

This air is derived from the passage when worked up to its extreme height, so that nearly the whole weight of the horse is thrown upon his haunches, the invitation of the hand, accompanied by the animation of the tongue, pressing him farther, induces the horse to rise forward, and gathering his fore-feet in to his chest, he is balanced on his bent haunches, in which position he will pause for the space of about five seconds; the hind feet, though scarcely raised from the ground, mark the time or beats, as if working the passage. The pesade must not be required of the horse till united himself in the passage, so as to be able deliberately to raise himself completely balanced, otherwise he will be in danger of falling. The horse should not be compelled to perform more than two or three pesades at one time, or he will be very likely to rebel.

#### THE TERRE-A-TERRE

Is galloping sideways, with the head to the wall or otherwise. The terre-a-terre is a shortened gallop with the croup in, and the haunches following in quick and close succession. The fact is, the horse is united or compressed, so as to produce a very cramped gallop, where the weight of course is thrown upon the haunches.

#### THE MEZAIR.

This is a side movement of the horse, in an action derived from the gallop, as the fore feet follow each other, and then the hind feet in like manner. The mezaire is worked sideways on two lines forming a right angle with the body, with a very close union, very lofty action before, and very low behind, wherein the beats of the fore feet follow close to each other, while the hind feet, lifted but little from the ground, glide along, rapidly accompanying the fore feet to keep the position, at the finish of every cadence, true upon their lines.

To render this more intelligible, it may be observed, that in the side movements of the horse in the terre-a-terre, he preserves his position on his lines in the midst of the cadence of the action working the shoulders and croup together; but in the mezaire, the action of the fore feet throws the horse out of position till the hind feet finish the cadence, and place him true again.

#### CURVETS

May be compared to the mezaire in a similar manner as the piaffe to the passage: it is a similar action of the legs, but in a straight or forward direction, which enables the horse to raise his fore feet exactly together, of equal height and projection, and coming to the ground in like manner, they make only one beat, the hind legs accompanying them make another beat. All airs derived from the action of the trot, beat the time of one, two, al-

ternately, without space or intermission between the beats; the beats are marked by two feet at cross corners, and are distinguished by quick, slow, sharp, or flat beats; but the action of the curvet is derived from the gallop, inasmuch as the fore feet meet the ground without the intervention of a hind foot, and though the action derived from the gallop is generally distinguished by four beats in the cadence, yet this air only makes two, the fore feet making one, and the hind feet the other: the beats are sharp, though a space appears between the cadence of each curvet.

#### THE PEROUETTE.

In this air, the horse goes about in the gallop completely on his hind feet; that is, his inner hind foot becomes a centre on which he turns, and the excellence of it is, to go about in one cadence of the air, which is the complete perouette.

#### THE STEP AND LEAP.

The step is, the horse uniting himself previous to the leap, and the leap terminates the air; so that to perform it a second time, he recommences with the step and finishes with the leap. It is performed on the ground upon which the horse stands, and he should not advance with the leap, but alight on the same spot from which he rose.

The action of the step is derived from the passage or piaffe, being the near fore foot, and off hind foot working together, and the off fore foot in like manner, the action lofty before and therefore low behind. The difference of the step from the passage or piaffe is the irresolute and weak efforts made by the horse to raise the fore foot which is on the ground, while the other is in the air, or before its return to the ground. This constitutes what is called the step; and when the horse has raised both his fore feet from the ground he makes a leap from his hind feet, and alights on all four feet at the same time, and disunited.

#### THE CROUPEADE.

This is produced in a similar manner to the preceding, but in an air of greater animation and higher action, and consequently requires greater exertion. The horse raises himself very high before with his fore feet bent to his chest (which is a pesade) and then springing from his hind feet, he draws them up near to his belly, which is called the croupade.

#### THE BALOTADE.

In this the horse springs higher than in the croupade; and while in the air he presents his hind feet, showing his shoes as though he were going to strike out.

#### THE CAPRIOLE.

In this, as also in the balotade, the horse collects or unites his powers to spring in an action derived from the gallop, by the alternate working of the fore and hind feet, similarly to what a horse gives force to his spring, by two or three peculiar strokes in the gallop before he takes a flying jump. In the balotade and capriole, he unites his powers by the alternate action of his shoulders and croup, without advancing one inch: the action of the legs like the mezzair, only higher behind, and after two or three cadences, he springs into the air, and lashing out his hind feet, completes the capriole. If

the feet should not be lashed out to their full extent, it becomes an air between the balotade and the capriole, and is called a demi-capriole.

The capriole is the loftiest air of the manege, and requires the greatest exertion which can be drawn from the horse.

From a perusal of the preceding sections of the manege, the reader will perceive, that what I stated in my introductory observations to the present article, viz., that the horse is constantly on his haunches, and in consequence is necessitated to endure a continued strain, which renders him incapable of any useful purpose, is perfectly correct; nor can anything be more absurd, ignorant, and ridiculous, than the following expression of Mr. John Allen, riding master, Seymour Place, Bryanstone Square:—"The manege system applied to practice on the road, the field, and the course." Now, as we know there are many tricks of trade, I cannot help suspecting the book in the title page of which "John Allen" appears, as one of them. I am of opinion there is no such person as "John Allen, Riding Master, Seymour Place, Bryanstone Square," and that it is merely a *nom de guerre*. Let it be kept in mind, that whoever huddled "John Allen's" publication together, was no riding master—or at least the scribbler knows just as much about horsemanship as he does of the avocation followed by the man in the moon; further, the book is *absolutely copied* from Adams, only that the changes are rung upon it, as it were; that is, there is some transposition of paragraphs, and this done so ignorantly, that what was plain enough in Adams's\* is, in "Allen," rendered unintelligible. If any person, in the least acquainted with the subject, will take the trouble just to glance at the plates on leaping which appear in "Allen's" book, and particularly the "*hunting leap*," he will be abundantly convinced of "Allen's" profound and genuine ignorance of the art upon which he thus professes to give instruction!

As the manege system requires the horse to revert the order of nature, his education becomes a task of some trouble, during which he is compelled to endure a course of drilling which amounts, in many parts of it, to positive torture.

What is called by manege riders (THE SHOULDER WITHIN) may be considered as the first lesson:—it is to bend, supple, and retain the horse's shoulders: it is first performed on circles. The horse being bent with his head towards the centre retains the inner shoulder, and advances the outer, which throws the croup out, and the hind legs describe a larger circle than the fore legs.

As soon as the lesson is perfected on the circle to both hands, it is to be practised along the walls of the riding house, in which the rider's position varies in a trifling degree, namely, rather less inclination of the body. When a horse works on a circle, he inclines his body to it, and the rider must consequently assume a corresponding position in order to preserve his balance. But when this lesson is performed along the wall, or on a straight

\* Adams understood the manege and military system of horsemanship,—but nothing more; and he lost many pupils in consequence of his obstinate adherence to them.

line, the position will be more upright. Adams observes upon "*the shoulder within*:" "This lesson, and all constrained lessons are *particularly distressing to the horse*, and should not be continued too long at a time, and in that short time should be frequently changed. The working twice round the riding house to one hand is sufficient; then change and work the contrary hand."

We then come to

#### HEAD AND CROUP TO THE WALL,

Which amounts to *passaging*, which I have already noticed, and to which I refer the reader. I will, however, introduce an extract from the practical instructions for attaining perfection in this air, and give it in the jargon of the school:—"Begin to work your horse's head to the wall, to the right; when you arrive at the corner, observe the turning of the corner. If you suffer the shoulder to go round too soon, the corner would not be filled, and discovers that the hand permits the horse to break ground, which all horses will do with inattentive hands. On the other hand, if you work too close, the shoulders would not have room to turn, and you would be locked up. Therefore, stop the haunches in time, that the shoulders may have just room to turn.

"If you have your horse properly united and balanced in your hands, the gradual turn of your body, desisting at the same time from aiding with the leg, will lead the shoulders round. And, as the shoulders advance to their proper situation on the new lines, the body and leg resume their former positions, and work both shoulders and croup together.

"When arrived at the corner B, in like manner, lead the shoulders round till they are properly situated to work on the diagonal lines which cross the school, and work to the corner D; if you bring the horse properly to this corner, the horse will be situated, by only the change of your position, to work on the lines to the left; carefully observing to turn and fill the corner C, work to the point E. Here stay the croup while you lead the shoulders round to station them on the intended demi-volt; then forming with your eye as true a half circle as you can, correctly work thereon."

To prepare or qualify the horse for the manege airs, a staff, six or seven feet long, is provided, to the upper end of which is affixed a strap, with a buckle to fasten it to the outside eye of the snaffle; the length of strap, from the extreme end of the staff to the snaffle, should be about six or eight inches. Long hempen lines, about the thickness of a clock-line, but twisted loose, that they may be soft and pliable, must be procured. The line should be from twenty-four to thirty feet in length, which is formed into reins, each end of which is to pass through the eye of the snaffle, then through the ring suspended from the head-stall of the bridle, and buckled to the loops of the saddle or surcingle. These reins you hold as you would the reins of a horse you were driving, at such a length as will place you in security from the heels of the horse. A whip with a long handle and long thong, for the purpose of animating the horse; or, in other words, compelling him to perform what you wish. Your assistant must have his staff

buckled to the eye of the snaffle next the wall, and must place himself at a convenient distance before the horse: his business is to prevent the horse departing from the wall, as well as to prevent the horse getting his head down.

Lead the horse to the wall, and let him advance slowly at first; then request him to unite himself; if he does not obey, he will bear on the bit, and endeavour to advance too rapidly; when the person with the staff can raise the head, and thereby bring the horse to obedience, and a light appui. The person holding the lines will moderately feel the mouth, the inner rein acting in unison with the staff rein, causes a little bend, and the appui is to be light, permitting the horse to advance slowly, the whip presented to keep the croup to the wall, and to stimulate and keep up the action. As the horse advances, the person with the staff retires. Thus, by practice, you are to procure as much union and action as the horse can endure; but this can seldom be accomplished without placing the horse between fixed pillars, passing the lines through rings fixed to the pillars at about the elevation of the horse's head, by which means the horse is compelled to work upon his own ground; and the operation is so extremely distressing that the animal cannot endure it many seconds without a rest. The horse in this manner, is at length worked up to extreme union, which is the foundation of all the airs of the manege; and as he at first performs them without a rider, he is ultimately able to go through them when mounted.

How far I am borne out in calling this a system of torture, I leave the reader to judge: I think he will perceive that the horse is forced, by the severity of coercion, into all possible contortions of limbs and body, for the purpose of producing what are called the airs of the manege; and although in these operations the beauty of nature is outraged in every possible form, yet, by a strange perversity of taste, and a paradox upon common sense, they are called *graceful*! but admitted to be useless by their most strenuous advocates!

#### MILITARY RIDING.

As I do not understand military evolutions, it may appear presumptuous to speak of military horsemanship; my observations, therefore, will be short, and indeed what I have to say on the subject will be confined principally to the seat or position of the rider.

It is the custom of the military, and has been particularly the practice of late years, to ride with long stirrups. I have observed in the preceding pages, that the stirrup should be of that precise length, which, without compelling the rider to bear the whole weight of his body on the fork, will, on the contrary, enable him to press his thighs to the saddle, grasp firmly with his knees and the calves of his legs—in fact, such a length of stirrup as will give him hold from the top of his thighs to the lower part of the legs, and particularly to grasp firmly with the knee—the grasp of the knee being the strongest hold that can be taken: for the rider to do this in the best possible manner, he must have sufficient bearing in the stirrup to enable him to compress the muscles of his limbs, as if they are elongated or stretched by the length of the stirrup,

they must lose their compressive force, or power of adhesion.

The seat just described is, beyond all question, that which gives a person the greatest strength or power on horseback, by which he is best able to support his horse, and maintain his situation on sudden emergencies, and all critical and difficult situations: I therefore am of opinion that it would be found more advantageous to the military, and would, unquestionably, be much less liable to cause or produce rupture, than the system at present in use. I was informed by a dragoon officer, that the privates will shorten the stirrup, for the purpose of acquiring an easier seat, whenever a convenient opportunity occurs: for which, however, they are punished, if detected, by extra drills, &c.

The soldier having to attack his enemy and defend himself, to act singly or in the ranks or squad, will require a horse with a delicate mouth, to which should be added the firmest seat; and the question is, whether the seat I have just described, or that where a longer stirrup is used, by which the muscles are stretched and must consequently lose much of their compressive power, is to be preferred.

Fashion may have had considerable influence in the introduction of the present military system of horsemanship. Like the manege, it appears to be of foreign extraction; whatever may be its merit in a military point of view, it is not calculated for any other purpose; I do not profess, however, to give instructions upon military riding, and therefore close the subject.

In conversing upon this subject with an officer, who had served in the dragoons, he very candidly admitted, that, for military service, the short stirrup was very far preferable to the length which our soldiers are compelled to use. By way of elucidation, he said, the natives of India used short stirrups; and in consequence they were not only much stronger on horseback than our troops, but could reach their enemy a foot farther.

#### LADIES'S RIDING.

In many parts of continental Europe, the ladies adopt the masculine method of riding, which is unquestionably the most secure; but the British fair, as they are incomparably beautiful, so are they equally delicate and modest, and have adopted a style of riding in unison with their feelings, elegant and graceful in the highest degree.

Much of a lady's ease and elegance in riding depends on the side saddle being properly formed, and well fitted to the horse. The head, which is the part that receives the right knee should be six or eight inches high, which will prevent the knee from being disturbed by any little unexpected roughness, and of course conduces very much to the security of the seat. The head should lay over a little to the off side, by which a lady is enabled to keep the centre of the saddle. The head and indeed almost every part of a lady's saddle should be stuffed, in order to render it as comfortable as possible.

The stirrup should be a slipper, the leather of which should hang over the off head of the saddle, the buckle under the head, so that it can be altered without disturbing her.

The horse is an important consideration in any department of riding, but particularly as regards the fair sex. In the year 1829, in the month of November, I rode with Sir J. L. Kaye from his residence, Swithland Hall, near Loughbro', to meet the hounds of Lord Anson at Kirby, and Lady Kaye accompanied us for a mile or two. Her ladyship was mounted on a charming little bay, nearly thorough bred, if not quite, perfect at his business. Sir John informed me that he purchased him (at four years old, if I mistake not) for the purpose of carrying Lady Kaye, and he therefore undertook the education of the horse himself. He taught him to canter in very beautiful style, made his mouth as light as a feather, and rode him with the bridle reins on his neck over rough and uneven ground, and continued these lessons till the horse was completely taught to take care of himself without the least assistance from the rider:—in this way, the horse acquired the method of raising his feet in such a manner as to render coming down next to an impossibility. Further, Sir John Kaye rendered him so steady that the horse would neither start, nor move out of his pace, whatever might occur. By Sir John's request, I galloped past her ladyship, cracking my hunting whip, which the charming little pad regarded with the most perfect indifference. Yet, he attended to every request of Lady Kaye with alacrity and good temper, proud of the elegant and lovely charge which he bore safely along.

A lady should never be placed on a horse which is not the safest possible goer, and immoveably steady to every kind of noise and every kind of interruption. A lady's pad should be accustomed to the firing of guns, the beating of drums, and indeed to every thing tending to create alarm. His mouth should be light and pleasant, and he should be taught to lead with the right leg. The canter is the pace best calculated for ladies' riding, which they can easily extend to the gallop, if they think proper.

In placing a lady on horseback, let the assistant adjust the reins of the bit (curb) taking them up within the bridoon (snaffle) rein; and, dividing the reins with the fore finger of his left hand, the lady will receive them from him with her right hand immediately before the pommel of the saddle, (the whip being also held in it and hanging over on the off side) placing her fore finger between the reins, letting them slide gently till her hand rests upon, and takes hold of, the near crutch of the pommel of the saddle; having placed herself close to the horse, with her face rather obliquely forward, the assistant must place himself before her, intersecting the fingers of each hand, and thus receive her left foot. The lady then places her left hand on his right shoulder, by which and her hold on the crutch of the saddle, she steadies herself, bearing all her weight on the assistant's hands, straightening the left knee and keeping it firm. The assistant raises the lady, seats her in the saddle, and places her left foot in the stirrup. She then removes her right hand from the near crutch to the off crutch, adjusts her habit with the help of the assistant, and places her right knee in the crutch on the pommel of the saddle.

The lady's dress being properly adjusted, a

strong pin may be placed under the narrow part of the right foot next the heel, care being taken that the pin confines the under as well as the upper side not only of the skirts of the habit, but also of the cloaths, to prevent them rising and rendering the seat uncomfortable. The skirt may also be pinned behind in boisterous weather; though these precautions will seldom be requisite when a female has become acquainted with the art of riding; nor indeed are they absolutely called for in the school, since the teacher is always at hand to assist in the re-adjustment of the lady's dress and indeed for any thing else. Lead placed in the skirts of the habit is convenient, and will prevent it rising.

In dismounting, the lady must remove the reins to the right hand, and take hold of the off crutch with it, when the pins (if any have been used) should be removed by the assistant, he also clearing her cloaths from the pommel of the saddle as she raises her knee over: he then takes the stirrup from her foot, while the lady shifts her right hand to the near crutch of the saddle. She leans forward and is received by the assistant or gentleman with a hand under each arm, and she descends lightly to the ground. If the lady be very active, she may place her right hand in the left hand of the gentleman, and making a spring just sufficient to clear the saddle, she must be received with the gentleman's right hand under her left arm, and thus alight very gracefully.

Should it be requisite for a female to dismount without assistance, she must clear herself of the crutch, stirrup, &c., turn to the right so that she can take hold with her left hand of a lock of the horse's mane, holding with the other hand the near crutch; she will then spring from the horse and alight on the balls of the feet, the knees a little bent, and not relinquishing her hold till she perceives herself quite secure.

A lady's position should be upright, the left foot placed horizontally and bearing a little in the stirrup, the right knee in the crutch, which it grasps, the leg back and close to the flap of the saddle. The body being upright, the lady looking directly to the front, her weight should rest on the centre of the saddle, neither bearing to the right nor the left; and, in fact, to acquire the true seat should be the first grand object, nor should a lady attempt to ride beyond the walk till she has acquired confidence, a true balance, and correct position.

The lady's first lessons should be in a circle, a rein fixed to a cavison or the bridoon, by which the teacher will direct the horse; which should be very steady and one that has been well trained for the business. Practice without the stirrup, and without any assistance from the reins is highly advisable, in order to acquire a good balance and an easy, elegant, and graceful, but firm and steady, seat. The eye should be directed to the horse's nose; and ladies should be chiefly practised to the right to divest them of the propensity of inclining to the near side of the horse.

Ladies should be practised in the walk till they have acquired confidence, when the horse may be put to a slow trot, increasing the pace by degrees according to the progress made by the pupil.

When the lady has acquired the freedom of leaning to the right, in a smart trot, so that she can

observe the feet of the horse on the off side, her position and seat may be considered as tolerably correct.

It is not to be supposed that a lady will be able to manage the reins with the strength and dexterity of a man; and therefore, as I have before observed, ladies should always be mounted upon horses well trained for the purpose, like the pad belonging to Lady Kaye. However, what has been stated on the HAND, &c., in the instructions for gentlemen is applicable also to ladies: it should be explained to them by the teacher, and they can study it at their leisure. A lady can aid or animate the horse by the whip on the off side, applied behind the girth according to the required degree.

The whip should be held in the hand in a somewhat similar manner to a pen, the lash downward, but not so as to touch or tickle the hind quarters or flanks of the horse.

A lady who wishes to become accomplished in riding, should study whatever has been said on the subject, in preceding numbers, as applicable to the opposite sex—the back a little hollow, the breast raised, the seat firm, yet easy, elegant, and graceful.

As soon as a lady has acquired the correct method and style of trotting, and of rising in the stirrup, she must be mindful not to twist her body, nor rise to the left side; she must keep her right shoulder back, and raise her body in a line to the horse's right ear. The action of the horse will inform her when to rise, when her body must be inclined a little forward. In this operation a great portion of her weight will be received on the right knee, by which and a pressure in the stirrup, she will ease her return to the saddle.

The canter and gallop will succeed the trot, which will be very easily acquired, and needs no further instruction in this place. The canter is the most graceful and the best pace for ladies's riding: I cannot persuade myself to think that a lady appears to advantage in the trot.

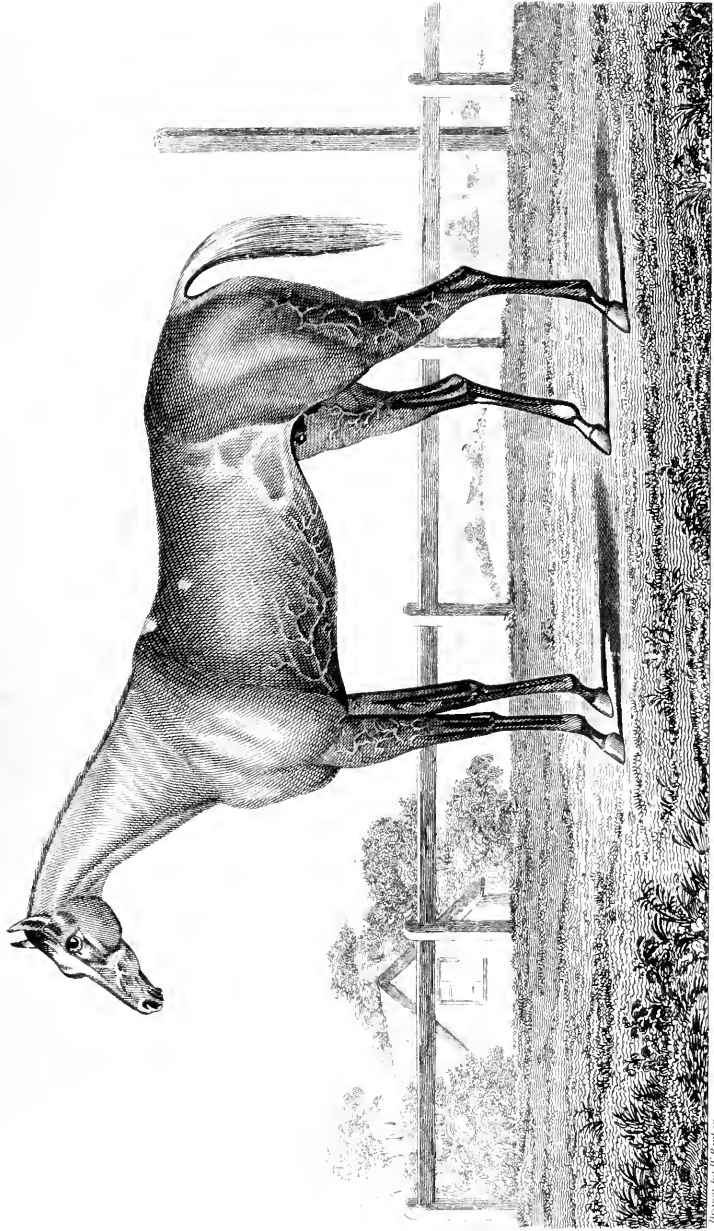
The last lesson is the bar; in leaping, the lady must take as firm a hold as possible with the right knee, and for any further instruction upon the subject the reader is referred to preceding numbers.

I have frequently observed gentlemen take hold of the cantle of the saddle; I have noticed ladies take hold of the crutch: they are both bad habits.

I am not aware of any picture more beautiful than an elegant female on horseback; Lady Grosvenor is a striking exemplification, whom I have repeatedly seen at the fixtures for the Cheshire hounds; I never observed her cross the country. Her ladyship's presence at the fixture was highly gratifying; it gave a degree of interest to the scene which could not have been derived from any other source. Amidst the busy jocularly of such a meeting, there might indeed be seen the homage which high birth and distinguished rank paid to loveliness and beauty. Lady Grosvenor remains to witness the finding of the fox; and if when he goes away, he happens to take a direction that will enable her to see the run, she rides along the lanes, crosses inclosures where gates or openings happen to be convenient, and continues in this way as long as she can. I think I once observed her up







Engraved by J.C. Walker

T O U C H S T O N E

Winner of the Best Cup of the present Year, of the Doncaster St. Leger in 1834. & various other important Stakes.

London Published by Chapman, August 1. 1836

Drawn by W. Parker

at the death of the fox.—Lady Grosvenor is an elegant rider.

Lady Helen Lowther is the boldest female rider I ever saw. This lady appears in the field in scarlet, completely equipped for the chase. She meets the Earl of Lonsdale's fox hounds, mounted upon steady superb steeds, and rides uncommonly well. Upon one occasion, when the fixture was Little Daulby, three miles from Melton, I saw Lady Lowther put her beautiful bay horse along with uncommon spirit.

It is no uncommon circumstance for ladies to attend the fixture for the purpose of witnessing the find, though few attempt to follow the hounds. I have seen considerable numbers of elegant ladies attend the fixture of the Quorndon hounds the first Monday of November, (the commencement of the season) for the purpose of seeing the fox go away.

When a lady and gentleman ride in company, the lady rides on his left.

### TOUCHSTONE.—(PLATE.)

The splendid animal, whose portrait forms our present embellishment, has appeared many times on the course; and, notwithstanding his numerous contests, has continued to train on, as has been strikingly exemplified by the manner in which he won the late Ascot Cup. A portrait of Touchstone was published in 1834, immediately after he had won the Great Doncaster St. Leger of that year; but, as the horse, when left to the genuine operations of nature does not attain maturity till he has completed his seventh year; a three years' old must be seen under every disadvantage; like most other quadrupeds, at an early period of life, he will appear leggy; he cannot be half furnished in any respect, and consequently must be seen under every disadvantage, particularly as far as relates to a pictorial representation. Under such circumstances, therefore, it was thought an impressive and highly-finished likeness of a horse (in a state of maturity) who has come out so often, ran so successfully, and won some of the most important stakes in the country, would be considered very acceptable to our readers. Having observed that the horse does not attain maturity till he has completed his seventh year, when left to the genuine operations of nature, it becomes requisite on the present occasion further to state, that the physiology of the horse, like that of most other animals, is very susceptible of the influence of art; or, in other words, man has devised various means by which he contrives to produce a premature or precocious maturity in those animals which he has reduced to a state of subjection; for instance, the racer, abundantly supplied with nourishment and food from the moment it breathes the vital air, placed in training at an early period, sweated, physicked, and bled, reaches the meridian of its existence (or acquires its greatest strength) two years

earlier than it would attain by the ordinary process of nature: thus, Touchstone, having received every physiological acceleration which the art or ingenuity of man could devise, presents, in the sixth year of his age, that fulness and rotundity; in fact, all that consummate perfection of form or animal organization of which he is susceptible. Consequently, the portrait which forms the frontispiece of our present number, will present to the eye a very different figure from the likeness taken two years earlier, though the one and the other may have been executed with the utmost fidelity of delineation. As the reader will be able to form an opinion for himself, we shall merely remark, that, as the horse in question is remarkable for the great strength of his thighs, and particularly for the lateral development of the muscle immediately above the hock, so the artist has contrived to give to these parts that degree of prominence so forcibly exhibited in the original.

Touchstone (a beautiful brown in colour) is by Camel, out of Banter by Master Henry; grandam Boadicea (sister to Bucephalus) by Alexander; great grandam by Brunette, by Aramantus, out of Mayfly, by Matchem, Amadis, Starling, Grasshopper, Sir M. Newtown's Arabian, Pert, &c.; Camel by Whalebone, dam by Selim, out of Maiden, by Sir Peter, &c.

Touchstone came first to the starting post in 1833 at Lichfield for the Produce Stakes of 50 sovs. each for two-years' old (3 subs) but meeting no competitor, walked over.

He came out again the same year at Holywell for the Champagne Stakes of 50 sovs. each, h ft., for two-years old (9 subs.) in which he ran third, the stakes being won by Mr. Mostyn's Queen Bess.

In the month of May of the following year (1834) he came out at Chester for the Dee Stakes of 50 sovs. each, h ft. for three-years old, which he won very cleverly, beating Queen Bess and two others.

At the same Meeting he appeared for and won the Palatine Stakes of 50 sovs. each, h ft. for three-years old, again beating Queen Bess and four others.

At the Liverpool July Meeting (Aintree Course) same year (1834) he came to the post for the St. Leger Stakes of 25 sovs. each, with 100 sovs. added, for three-years old, and ran second to Sir J. Boswell's *ch c* General Chasse.

Two months afterwards (September 1834) he won the Doncaster St. Leger, beating Bran, General Chasse, Shillelagh, Worlaby Baylock, Loudon, Lady le Gros, Bubastes, Valparaiso, Plenipotentiary, and *c f* by Partisan. Run in three minutes and sixteen seconds.

In the latter end of the same season (1834) he won 50 sovs. at Wrexham, and 100 sovs. at Holywell.

In 1835, Touchstone came out in the month

of May at Chester, and walked over for the Stand Cup.

The following week he came to the post (Liverpool Craven Meeting) for the Trade Cup, which was won by General Chasse; Touchstone not placed.

In September of the same year he won the Gold Candelabrum at Doncaster, value 300 sovs., with 50 sovs. added, beating Hornsea, General Chasse, Shillelagh, and Bella.

On Wednesday, September 23rd of the same year (1835) Touchstone won at Heaton Park a Piece of Gold Plate, presented by Count Matuschevitz, with 330 sovs., and on the following day, at the same place, walked over for a Gold Cup, value 100 sovs., with a Sweepstakes of 10 sovs. each (16 subs).

At Holywell, on the 13th of October of the same year (1835), he won a Sweepstakes of 50 sovs. each, (4 subs.,) beating Sister to Mona's Pride; on the same day he ran second to Mr. Mostyn's Usury for the Mostyn Stakes of 10 sovs each, (26 subs.,); and on the following day, at the same place, he walked over for a Port Sweepstakes of 100 sovs. each, h ft, (3 subs).

On Thursday, June 2, 1836, Touchstone won at Ascot a Gold Cup, value 300 sovs., with 200 sovs. added, beating Rockingham, Lucifer, and Aurelius.

In addition to which, it may be stated, that in 1835, Touchstone challenged the kingdom (8st 10lb), and his challenge continued unaccepted.

Touchstone is the property of the Most Noble the Marquis of Westminster, who traces his descent in the male line to an illustrious house which flourished in Normandy about a century and a half before the conquest of England by William I. The family of the Marquis of Westminster obtained its surname (Grosvenor) from having held the high and powerful office in that principality of Le Grosvenour. The founder of the family, Gilbert Le Grosvenour, came to England in the train of the Conqueror, and was nephew to Hugh Lupus, Count of Avranches, and, subsequently, Earl of Chester, uncle of the victorious monarch.

His Lordship succeeded to the family honours, as second Earl Grosvenor, upon the demise of his father, June 2, 1802, and was created Marquis of Westminster in 1831.

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On Wednesday was shot, at Knightsbridge barracks, poor old Jack, the only remaining horse in the Second Regiment of Life Guards at the battle of Waterloo. Jack carried his master through the perils of that day safely, and escaped safely himself without wound or cut. At every commemoration Jack was dressed in laurels and paraded proudly in front. On the 18th of this month he was again honoured; but, alas! it was destined to be his last glory. Age was fast coming on him, his legs swelled, his eyes got dim: but we are perfectly sure he was quite aware when the 18th of June returned, and why he was adorned with laurels. It was a pity to shoot him; it might be to save him from the infirmities of age, or to save others the trouble of attending him.

## MR. BLACKER ON THE CLAIMS OF THE LANDED INTEREST TO LEGISLATIVE PROTECTION.

Our attention has been directed to a publication from the pen of Mr. Blacker, who is already well known as the author of "An Essay on the Improvement to be made in the Cultivation of Small Farms." His exertions to improve the system of husbandry in Ireland, and the success which has attended those exertions, has, most deservedly, acquired for him the thanks of the Proprietors of some large estates, of which he has the management, and the gratitude of the tenantry, who are so fortunate as to enjoy the advantage of his advice and direction. The work to which we allude is entitled "The Claims of the Landed Interest to Legislative Protection Considered." From the very short space of time which this publication has been before us, we have not been enabled to read it with that attention which a hasty perusal sufficiently satisfies us that it deserves. But we are unwilling to postpone a notice of it from the conviction that it cannot be too speedily submitted to the examination of all those who take an interest in the cause of agriculture. The work is divided into sixteen chapters, each treating separately upon some distinct head. It can scarcely be expected that, even in a work of limited extent, there should not be some positions taken which will be viewed in different lights by different persons, of the same class, and having the same interest at heart, and we feel persuaded that a very considerable difference of opinion will exist as to the correctness of many of the propositions laid down by Mr. Blacker, especially when we take into account, according to his own statement, that he would not legislate for the benefit of a *class*, but for the whole *community*. Time will not serve us at the present moment, to go into a minute examination of the principles which he lays down; we shall however embrace an early opportunity of submitting them to a more strict scrutiny. His mode of exemplification is simple and striking, and eminently qualified to lead the reader to the conclusion the writer desires, when perhaps, there may be some lurking fallacy wholly concealed from view. The subject of the 8th chapter is, "The present System of the Corn Laws Considered." The following extract is intended to show the relative positions of the British and Foreign Agriculturist.

"But as an example shows the nature of the case in a clearer point of view than any general statement, allow me to compare the farmers at home and abroad, thus contending for the supply of Great Britain, to an opposition between two rival coach establishments, contending for a monopoly of the passengers on any particular road,—this is a matter of common occurrence, in which, whoever can continue the contest longest, ruins his adversary and effects his object— which, it is well known, is neither more nor less than to raise the *price of the fare*. This is so notoriously the case, that I may venture to assert, the public always considers itself interested in keeping up the opposition, for the avowed purpose of keeping down the fares. If the two establishments start on equal terms, and are conducted with equal economy, ability, &c., and have each an equal share of public favor, the heaviest purse generally carries the day;

but if one is liable to a heavy toll, and the other is not, it is then quite clear, that whilst one may be daily *losing*, the other may be carrying on a *saving*, or even a *beneficial* business,—and it is easy to see, the establishment which pays the toll must give up. Now this comparison is by no means what is termed ‘far fetched,’ for we are all passengers through life, and our subsistence is the *fare* for which these rival establishments are contending; it is therefore quite clear that the public who are the passengers, have a direct interest in supporting the weaker party in the struggle, and by some subscription in his favor, to place him upon an equal footing with his antagonist; for the express purpose of preventing the fare being raised by his ruin, which is a thing often carried into practice with the greatest public advantage. In this example it is evident, the establishment or copartnership, *subject to the toll*, is the *agricultural classes of Great Britain*, and if the public allow their rivals, the *continental farmers*, to ruin them and render them unable to carry on the competition, *their fare*, viz. the *fare of the public*, will be raised upon them—or, in other words, the price of grain will be advanced. The remedy proposed then, is the same which I have stated to have frequently been resorted to, and to have proved effectual in the example alluded to; that is, for those interested in supporting the opposition, to subscribe among themselves to assist the weaker party. But the British public is the party interested in the present case, and the subscription which they are called upon to make, is to lay on such a toll upon the competitor coming from abroad, as their countrymen are subjected to at home, and to be content to place the home grower upon an equal footing with his rival—in order to enable him to continue the contest, and secure to themselves a *permanent supply on fair terms*—rather than be seduced by the temptation of a *transient advantage* in dealing with his competitor, which will leave them at his mercy hereafter, when the home grower is ruined.”

Mr. Blacker is fully alive to the annually increasing amount of Agricultural produce grown in Ireland, and its effect upon the English markets, and he plainly states, that by an improved system of cropping and management, the quantity may be yet increased to an immense extent. In order therefore to prevent the disastrous consequences likely to result from such competition in the article of grain, he suggests the following remedial measure.

“I think it will appear that an efficient protection in butter, flax, and tallow, respecting the production of which there can be no dispute, would have the effect of withdrawing so much ground from the cultivation of *grain* crops in Ireland, as would for several years, at least, obviate all fears that might be entertained of any redundancy arising from the export of *that article* from this country: to ascertain which, let us see what quantity of land might thus be diverted to the produce of flax and butter, so as to estimate as near as possible to what extent relief might thereby be expected. We have already seen, page 168, that it would require 278,000 acres under flax, to supply the quantity of that article required, if the foreign article was shut out; now the reduction in the extent of land applied to grain culture would not be limited, as would at first sight appear, to this quantity, but would extend much farther. Flax leaves nothing towards manure, and where it would be cultivated, the manure made on the farm must be proportionably reduced; therefore, under the very *best* system of tillage, the quantity of land devoted to the cultivation of grain crops between

what was actually employed in the growth of flax, and what must of necessity be applied to pasture from the deficiency of manure, might fairly be taken at 500,000 acres. Let us next consider what land might be required to supply the extra quantity of butter which would be required if foreign importation was done away with, as the import of grain now is.—In the calculation I have given in an Essay on the Improvement to be made in the Cultivation of small Farms in Ireland, I have shown that the small farmer acting on the four course rotation, may feed three cows upon the produce of two acres of land. To maintain them however, where flax is largely cultivated, much more land must be allowed, for as manure falls short, not only pasture but hay and other crops, that will grow with less manure than turnips, but do not produce the same quantity of food, must be resorted to; in supplying, therefore, the extra quantity of butter required, if foreign importation was prohibited, and flax cultivated, we may take on the lowest computation that two acres to each cow for summer and winter feeding would be required, and that about one cwt. of butter would be the full average produce of each cow; therefore the ground required would be at least double the number of cwts. of butter imported, viz. 135,864 cwts., which at two acres to each cwt., would make in all 270,728 acres; the production of butter, therefore, would appear fully adequate to the advantageous occupation of all the land calculated to be thrown out of grain cultivation, by the cultivation of flax. In forming the foregoing estimate of 500,000 acres, and taking their produce at four and a half quarters of grain of all kinds, it would be tantamount to a reduction in the total export from Ireland, of about 2,250,000 quarters, which taken from the exports of Ireland, would be greatly felt in the English market. In this calculation no notice is taken of what hemp or tobacco might occupy, or what the rise on tallow might throw into pasture, and rearing stock, the enormous quantity likely to be devoted to flax and butter being quite sufficient for my argument, and that a little protection would have the effect of turning the corn land of Ireland to the cultivation of flax, is abundantly proved, by the fact that a little advance in price this last season, is now turning to the growth of flax almost the entire of the manured land of the north of this kingdom. This rise in price has been occasioned by the failure of the flax crop on the Continent, and most probably the poor people who are now speculating on the continuance of those prices, will suffer severely by the fall that probably will take place, when the abundant continental crop of this season shall get to market. The only chance the Irish farmer has of success in the cultivation of this article, appears to me to be, that by the erection of flax spinning mills in the neighbourhood of Belfast, the market for the article is brought nearer to him, and farther from his continental competitor, than it has heretofore been, when the flax spinning business was principally confined to the east coast of Scotland. The cost from importing flax from Riga to Dundee is as little as from the country markets in Ireland, and to bring it from Holland is actually less; so that the produce of Russia and Holland, in this article, directly competes in every respect with the produce of the United Kingdom.”

It cannot for an instant be doubted, that the dedication of 500,000 acres of land to another purpose than that of growing Corn, must reduce the supplies sent to market, very considerably, and produce a comparative effect on prices. There is, however, one very material point to be attended to in the

growth of flax, hemp, &c. which is the effect produced upon the soil. In neighbourhoods where an ample supply of manure, as sea-weed, &c. can be obtained, such a system may be beneficially adopted, but we entertain more than doubt, whether it would be possible to cultivate flax on ordinary soils, to any extent, and at the same time maintain the farm, even in a moderate state of cultivation. These are practical details, and at the present period, when it is admitted upon all hands, that Great Britain possesses powers of production more ample than her consumption requires, are well deserving the attention of land-owners and occupiers, and as such, we commend them to their notice.

**COST OF GROWING WHEAT.**—A rise in the prices of Agricultural produce, but particularly of Wheat being called for by some parties, it becomes desirable to ascertain as correctly as we are enabled, the price at which it can be grown with a remunerating profit to the farmer. Scarcely two farmers can be found who will agree upon the rate, each individual making his calculations upon *data*, applicable to his own particular case. The following answer of Mr. Sturge of Birmingham, to a question put to him by Mr. Cayley, as given in the second report of the evidence before the Committee of the House of Commons on the State of Agriculture, is appropos to the question. "You have only taken the cost of bringing Wheat here; can you estimate the price at which a farmer can grow Wheat?—I suppose the most practical agriculturist cannot; for they said formerly that it could not be grown at less than 10s a bushel, and afterwards 8s; and a member of this committee told me, the other day, he should be glad to compromise it for 7s. I conceive that the cost of the production of the Wheat depends very much upon the value of the necessaries of life; and it is upon that ground that I conclude (and it is the result of a good deal of observation), that the English farmer pays more in the cost for production than he can get benefit from any of the laws of monopoly; at the same time I am perfectly convinced that it checks the consumption of the better kind of food, which it is mostly more profitable to the farmer to produce. As to what Corn can be grown at, I find farmers, for the last ten or fifteen years, so various in their opinions, that it is impossible to say. Perhaps I may be allowed to mention a conversation I had with an individual two or three months ago. I was travelling with a farmer who has very much lessened his property. He told me that he had lost 15,000*l.* by agriculture since he had been in it, besides a considerable sum in purchasing land; but in the course of conversation, which afterwards took a different turn, he mentioned a farm that was to let in his neighbourhood, which he appeared to be considering whether he should take; and he said he could afford to grow Wheat upon it at 15s a bag, or 40s a quarter. This was the opinion of a man who had suffered very much from the depression of prices; but it seems he had learnt from it how to grow corn cheap."

At Munster, Prussia, on the 30th ult., a race took place of horses matched against reindeer. The latter had to contend against seven horses who had already gained prizes at different horse races; but a five-year old stallion, belonging to a peasant at Amelsburen, arrived at the winning post before the reindeer.

## TO THE EDITOR OF THE LINCOLN-SHIRE CHRONICLE.

SIR,—I should not have departed from my hitherto unvaried practice by noticing any remarks, which as a public journalist you were fully entitled to make, upon my parliamentary conduct, had you not in your last Chronicle quoted an incorrect report of my speech upon Sir Charles Knightly's motion. I am reported to have said, "that the repeal of the duty on soap would not give any great relief to the farmer." Now, what I did say was, "that the reduction of the duty on soap would not give any relief to the farmer," and I added, "if I thought it would, the proposition of the honourable baronet should have my support, and claim credit for the sincerity of the avowal, because honourable members on both sides of the house will bear testimony that I have never allowed political predilections to bias my vote when the interests of agriculture were involved."—There is an old remark, that there is an M in Macedonia and an M in Monmouth, and about an equal degree of affinity as effects the agriculturists exists between the motion of Sir Charles Knightly and that which you allude to my having introduced at an earlier period of the session.—The terms of my motion were, "to repeal the excise duties on soap, and increase the custom's duties upon foreign tallow." My object was to relieve the grazier, not certainly by a repeal of the soap duties, but by imposing an additional protection upon tallow of home growth; but, knowing that I should fail in carrying the latter proposition without providing an equivalent to the public for the tax which it would impose, more especially upon candles, I suggested the repeal of the soap duties as a compensation, the consumers of both being the same,—while the manufacturer would be altogether relieved from the trammels of the excise (which Sir C. Knightly's motion would have left as obnoxious as ever), and the Exchequer freed from the cost of collection, and remunerated in a great measure for the loss by the increased duties upon Russia tallow.

Sir C. Knightly wholly omitted that portion of my motion which, in my view, would alone have benefited the graziers, and adopted, as a boon to the agriculturist, that which I proposed merely as a compensation to the consumer; or, in the words of my speech, "took the husk and left the kernel!" For what was his proposition? "that the duty on hard soap should be reduced from three-halfpence to one penny, and on soft soap from a penny to one farthing." First, as to hard soap—out of 155,000 tons of tallow, the average quantity annually produced or imported into this country, 25,000 tons only are used in the manufacture of soap. Lord Althorp reduced the duties from threepence to three-halfpence per lb. Has the consumption of tallow increased? *It has not, but the importation of the Gallipoli and Palm oils has nearly doubled.* And why? because at their present reduced rate of duty they form the basis of all the cheaper soaps, to the exclusion of tallow!—What reason then is there to believe that the additional reduction of one halfpenny by Sir C. Knightly would have a contrary effect to the reduction of three-halfpence by Lord Althorp? But Sir C. Knightly proposed a still greater reduction in the duties upon soft soap—namely, "from a penny to one farthing;" in other he reduces hard soap one-third, but soft soap three-fourths! How then can he reconcile this proposal with his special object of relieving agriculture? for if Sir C. Knightly took the trouble to acquaint himself with the nature of the subject on which he proposed to legislate, and which I am bound to presume he did, he would learn that in the *manufacture of soft soap, no tallow whatever is used.* Thus much for the agricultural bearings of the question. Sir C. Knightly might conceive he was rendering a service to the agriculturists by embarrassing the government, but in this he had no right to expect my co-operation; and I only hope, whenever Parliament may claim our gratitude for a measure of relief to the farmer, it will be of a more substantial character than than proposed by Sir Charles Knightly.

With reference to the comparative advantages to the

public between a reduction of the respective duties on newspapers or on soap, I shall only add, that though I have stated in my place in Parliament, that the former is *not* the tax of all others I should select for remission, yet, in the choice offered me, I give it the preference, because it will put a stop to a systematic violation of the law, without any ultimate loss to the revenue; while the latter, taken with relation to the population, would barely effect a saving of threepence halfpenny per head per annum; a poor equivalent, in my opinion, for an annual loss to the Exchequer of from 2 to 300,000*l.* without any diminution in the cost or trouble of collecting the remainder, and without any relaxation to the manufacturer of the vexatious restrictions of the excise.

I am, Sir, your obedient servant,  
HENRY HANDLEY.

### SIR CHARLES KNIGHTLY'S "BOON" TO THE AGRICULTURISTS.

(FROM THE SPECTATOR.)

Let us see what Sir Charles Knightly would actually have accomplished, had his plan succeeded. Mr. Chas. Barclay, the brewer, who seconded the motion, calculated that the proposed reduction of the soap duty would amount to 244,000*l.* This 244,000*l.* divided among the English population of fifteen millions, would give each a sum of 3½*d.* per annum. The agriculturists, we suppose, do not use more soap than the mechanics—probably not so much. They would at any rate only have an equal share with other classes in the benefit of the reduction; and that share would be 3½*d.* a head. Behold the great boon to the suffering agricultural interests! Mr. John Brickwell, a Buckinghamshire farmer, was examined before the agricultural committee of the House of Commons. He rents 700 acres of land; and he told the committee, that by the abolition of the malt-tax of five millions and a half, he would only have gained 2*l.* a-year; and now it is proposed to *relieve* this man by taking off a tax of less than a quarter of a million. If the abolition of the malt-tax would only put 2*l.* a-year in Mr. Brickwell's pocket, the proposed reduction of the soap-tax would give less than one pound a-year! Look at the calculation in another way. Sir Charles Knightly proposed to take a halfpenny off the tax on hard soap: supposed Mr. Brickwell consumed 480*lbs.* a-year of soap, still this reduction would only relieve him to the amount of 1*d.* But what farmer consumes 480 pounds of soap in his household, now that the practice of boarding his labourers is put and end to? Mr. Goulburn says that each person on an average uses 6½ pounds of soap a-year. Suppose that a farmer has ten persons under his roof, his consumption of soap would be 65 pounds; and his saving by Sir Charles Knightly's scheme of relief, would therefore be two shillings and eightpence halfpenny per annum! What a relief to the suffering agriculturists! The quantity of wheat raised in England is not less than twelve millions of quarters: suppose that the price of wheat on Monday last had risen sixpence a quarter—three farthings a bushel—in Mark Lane: would any farmer's friend have admitted that the rise had given great relief to the agricultural interest? Yet sixpence a quarter on twelve millions, amounts to 300,000*l.*; that is 56 thousand pounds more than is produced by that portion of the soap-tax sought to be repealed. Even if the whole benefit of the remission were to be engrossed by the agriculturists, still an advance of less than a penny a bushel on wheat would be the greater advantage to the agricultural interest. Let us suppose that a farmer pays 500*l.* a-year rent and tithes. The "agricultural interest is suffering" in spite of the Corn-laws, and he applies for a lowering of his rent: would he thank his landlord for a reduction of one per cent.? Scarcely, we should imagine, yet, on the supposition that his family consisted of ten persons, even that paltry reduction of rent would be about 38 times as large a "boon" as that which Sir Charles Knightly

proposes to give him. The fact is, that the only class of persons who reap any material saving by the reduction of a halfpenny a pound on soap would be the laundresses; and Sir Charles Knightly should have proposed it as a boon to washerwomen.

Such being the real state of this question, what is the proper name for the Standard's pretence, that "the remission of the soap-tax would afford great relief to the suffering agriculturists?" The friends of the farmer treat them as if they were stupid dolts, who could not put two and two together, to make four. Any farmer who has had the benefit of Sunday School teaching, can calculate at once, that the remission of a halfpenny a pound on soap, would give no relief worth mentioning to any large "interest." But the reduction of the tax would stimulate production: possibly, a very small additional quantity of tallow might be required. Tallow, however, comes from Russia, as well as from the English grazing districts; and it must be remembered, that the illicit manufacturer supplies a large quantity of the present consumption. A reduction of the duty might bring more soap "to charge" yet we question whether the demand is not already satisfied by the fair dealer, and the smuggler together. At any rate, the indirect advantage to the English farmer is uncertain, and so minute as not to be tangible.

SHEERNESS.—SHEEP SHEARING.—On Monday se'night, a shearing match took place at Minster in a field at the foot of Minster-hill, under the auspices of the Isle of Sheppy Agricultural Society; there were seventeen competitors, each of whom had a pen of three sheep, and prizes were given to a certain number of the best shearers. The judges, (Mr. Gascoyne, of Pappchild, Mr. Goord, of Milton, and Mr. Smith, of the Isle of Grain) pronounced the whole of the shearing to be very excellent, and as doing great credit to the graziers of Sheppy and their servants. Besides the farmers and graziers of the island, there were present several gentlemen from the neighbourhoods of Faversham, Milton, &c. After the shearing, the gentlemen composing the Isle of Sheppy Agricultural Society, and their friends, to the number of sixty-five, sat down to dinner at the Waterloo Inn, Minister, D. Banks, Esq., to whom the sheep that were sheared belonged, presided on the occasion, and the evening was passed away with many a bumper.

PORTFOLIO.—CIVILIZATION IN EGYPT.—Civilization and taxation have long been considered as proceeding hand in hand. The virtues of a simple people, we are every day told, are not to be expected in our complicated state. That complication which we consider as a portion of civilization, those who have seen and studied the East in its present state of transition, feel to be an unhappy aberration of the Western mind, which is now spreading to the East and is there attended with all the worst symptoms which we consider as incident to civilization. There these symptoms are now making progress enormously rapid, in consequence of the fiscal regulations not taking two or three centuries for their establishment, as they have done in Europe, but being the growth of a month or year, and enforced by the great instrument of despotism hitherto unknown in the East, and now imported from the West, viz. standing armies. The dependence of the Arab on the date-tree has been the theme of every traveller in Egypt, Africa, and Arabia. In Egypt, the soil upon which the date-tree stands is taxed. The tree is taxed; the fruit is taxed; the branch which holds the fruit is taxed; the Lift made from it is taxed; the branches are taxed; the fibre of the trunk is taxed; the cutting of the branches is an excise; the leaves of the branches are taxed; the makers of Lift are taxed; the makers of Couflan are taxed; the makers of the date-rope are taxed; the makers of date-baskets are taxed; the baskets ropes, &c. on exportation pay duty.

## THE SHEEP.—No. III.

IMPROVEMENT OF THE BREEDS.

*(From the Dumfries Herald.)*

The subject of our present paper requires, for its due consideration, some slight attainments in anatomy and physiology, but as such attainments, slight though they may be, are as rarely met with as required among the bulk of mankind, so the want of them may be the less regretted, seeing it is in our power to render even the intricacies of the subject plain and simple, by an appeal to facts of every-day occurrence, which, having attracted the notice of the most unthinking, will serve as hooks on which we shall try to hang the better part of an interesting study.

From the time of Jacob the possibility of determining the nature of the offspring, by impressions on the parents, has been apparent to all, and the best means of perpetuating a good quality or removing a bad one have, from time to time, occupied the attention of patriotic individuals.

As much appears to have been known about sheep two thousand years ago as at present; so true is it that nothing new is to be met with, yet that does not rob our modern improvers of their merits, for though they deserve little as inventors, yet are they to be admired for that strength of mind and determined perseverance which enabled them to rouse their fellows from a lethargic slumber, and compel them to become in turn benefactors of their country and themselves. The signs of a good ram are concisely laid down by Varro, by Virgil in his third *Georgic*, and by Columella; and though the Spanish nobility were looked upon with wonder (till eclipsed by our own extravagance) in giving two hundred ducats, or fifty pounds, for a ram; yet Strabo assures us that in his day (under Tiberius) they gave more than three times that sum for one of the breed of the Coraxi, a Pontic nation, believed to have the finest sheep in the world.

There cannot be a more certain sign of the rapid advances of a people in civilization and prosperity than increasing attention to the improvement of live stock. It tells of a population limited in regard to soil, and using every effort to remedy the want, by an economical doubling of the return for the usual outlay, for while a tribe wanders at large, remaining at a particular place only so long as provender holds out, and striking the tent departs for some far off field, so long will their flocks be suffered to roam neglected, and flourish or decay as chance directs.

The greatest recorded improvers of the sheep in ancient times were Lucius, Junius, Moderatus, Columella, and his uncle Marcus Columella, Spaniards of distinction, who removed to Rome in the reign of Tiberius, and made agriculture the study and business of their lives. The former commenced his celebrated treatise on husbandry during the reigns of Tiberius and Caligula, and appears to have finished it Anno Domini 55. It is a work that may be read with advantage even at present, as it abounds with much that is valuable, and is accessible to all through its English translation.

The first in modern times who arrived at any thing like eminence by his attention to this department was Joseph Allom of Clifton, who raised himself, by dint of industry, from a plough boy, and for a long time contrived to keep his methods secret, being supposed to have bought his ewes in Lincolnshire at the very time he was constantly bringing them from the Melton quarter of Leicestershire. Though possessing talent, he does not appear to have

had education enough to avail himself of it, and accordingly never gained the extensive popularity which fell to the lot of Bakewell. This latter gentleman, who may be said to have created a variety, considered that a tendency to acquire fat was the first quality to be looked to in an animal destined for the food of man, and on this, with him a fundamental principle, were based the whole of his proceedings. This variety, named the Dishley or New Leicester, from the residence of Mr. Robert Bakewell, has already received from us the outline of a description, and will, with the merinos, occupy the most of our attention in this paper, as tending materially, by their history, to elucidate some of the most important points connected with the influence of place and circumstances on the animal in general. Mr. Bakewell succeeded in bringing his sheep to great perfection, as regards form and rapidity of fattening, by breeding in the same family for a great many years; but it has been attended with considerable deterioration in the quality of the wool (it being a rule that the poorer the sheep are the more prolific; and the finer does the fleece become,) a circumstance which met with a check, some years after the introduction of the merino, in 1788, which is well known in all its crossings principally to affect that part of the animal.

Merino sheep, so called from a peculiar reddish hue of the countenance, are supposed to have come originally from Africa; at least Marcus Columella, having seen a strange variety from that country exhibited at Rome during some public games or shows, took them to his farm, and having crossed them with other breeds, sent the offspring to Spain, in which country they thrive remarkably, attracting the attention of other nations, to whom, from time to time, they were exported, and at present may be found in almost every part of the world. They were at one time in much request in various countries, from a supposition that they would speedily supplant other breeds; but this has never been the case, as it would appear the animal soon degenerates when out of Spain, and is only valuable so far as giving rise to varieties by crossing, which are equal, if not superior, to itself.

The most remarkable feature in their history was their being sent some time during last year from New South Wales to the Cape of Good Hope along with Saxon sheep,—a circumstance the more to be wondered at, when we consider the wide difference of the colonies in regard to age, the former having been established only 47 years, while the latter has existed no less than 160.

Merinos were brought to England for the first time in 1788, but attracted little attention till the commencement of his Majesty's sales in 1804. Lord Somerville, in 1801, went to Portugal for the sole purpose of selecting such animals as appeared valuable, from uniting a good carcass with a superior fleece, and he succeeded, notwithstanding the disturbed state of the country, in obtaining specimens which called forth the praises of the shepherds, through whose travelling flocks they passed.

Their distribution over this country was accomplished by the formation of the principal landed proprietors and eminent breeders into a Merino Society in 1811.

The merinos had much prejudice to encounter, but gained some powerful advocates, as is well known by the high prices they brought at the annual sales. The first sale took place in 1804, when the average price of the rams was 19*l.* 1*s.*, and of ewes 8*l.* 15*s.* 6*d.* each. At the second sale in August 1805, seventeen rams and twenty-one ewes sold on an average



at rather more than 30*l.* each. In 1808, the average price of rams was 33*l.* 10*s.*; and that of ewes 23*l.* 12*s.* 6*d.* In 1810, thirty-three rams sold on an average at more than 53*l.* each, so that up to this period they appear to have been steadily progressing in public favour; yet strange though it may appear, all those advantages were at once destroyed on the establishment of the Merino Society, and we may perhaps account for it on the supposition that the institution of local committees, which immediately followed, allowed the enemies of the change in distant parts of the kingdom ample opportunity of striking at the scheme, now that it was entrusted, in many instances, to persons ill qualified for the task either of making converts, or retaining the advantages they had gained. Even if unopposed, they must gradually have sunk into neglect, as the gain, by means of the wool, was reduced to a trifle, when the loss of weight and fineness in the carcass was taken into account. Mr. Hose of Melton Mowbray, put a certain number of Leicester ewes to a ram of the same breed, and an equal number to a merino ram. The result was, that the Leicester fleece weighed 7*l*bs., and that from the cross with the merino 8*l*bs.; and that the former brought in the market 1*s.* per *lb.*, and the latter 1*s.* 6*d.*, being a gain of 5*s.* on the fleece. The carcass of the former, however, weighed 27*l*bs. per quarter, the latter only 25*l*bs., being a loss 8*l*bs. on mutton. There are few flocks of the pure merinos now existing, and little trace of any good they have done can now be discovered even in Ireland, though ten thousand were sent into that country in 1810 by Sir James Stuart.

Much advantage may, however, be expected from our crosses with the Saxon merino, which is in every respect well suited to our notions of a fine animal, as it yields a fine wool, and is little inferior in carcass to some of our best breeds.

The best form for a ram is thus described by Mr. Culley, in his excellent work on Live stock. "His head should be fine and small; his nostrils wide and expanded; his eyes prominent, and rather bold or daring; ears thin; his collar full from his breast and shoulders, but tapering gradually all the way to where the neck and head join, which should be very fine and graceful, being perfectly free from any coarse leather hanging down; the shoulders broad and full which must at the same time join so easy to the collar forward and chine backward, as to leave not the least hollow in either place; the mutton upon his arm or fore-thigh must come quite to the knee; his legs upright with a clean fine bone, being equally clear from superfluous skin and coarse hairy wool from the knee and hough downwards; the breast broad and well forward, which will keep his fore legs at a proper wideness; his girth or chest full and deep, and instead of a hollow behind the shoulders, that part by some called the fore-flank, should be quite full; the back and loins broad, flat, and straight, from which the ribs must rise in a fine circular arch; his belly straight; the quarters long and full, with the mutton quite down to the hough, which should neither stand in nor out; his twist deep, wide, and full, which, with the broad breast, will keep his fore legs open and upright; the whole body covered with a thin pelt, and that with bright soft wool. The nearer any breed comes up to the above description, the nearer they approach towards excellence of form."

As an amusing contrast to the above well-drawn picture, we give an extract from the work of our ancient agriculturist Columella.

"Therefore, the way to judge and approve of a ram, is not only that of observing if he is clothed

with a white fleece, but also if his palate and tongue are of the same colour with his wool; for when these parts of his body are black or spotted, there arises a black or speckled offspring. And this, among other things, the same poet I mentioned above, (Virgil, Georg. Lib. iii.) has excellently pointed out in such numbers as these."

"Reject him tho' the ram himself be white,  
Under whose ousy palate lies concealed  
A black or spotted tongue; for with black spots  
He'll stain the fleeces of his future race."

After some amusing remarks on the same subject, delivered in a very quaint way, he concludes his description with the mention of "twisted horns,"—"not because this last is more useful, (for a ram without horns is better,) but because horns that are twisted and bended inwards are not at all so hurtful as those that are set upright and expanded. Nevertheless, in some countries where the climate is wet and windy, we would wish for he-goats and rams even with the very largest horns; because when they are high and extended, they defend the greatest part of the head from the storm."

It is thus that among some of his beautiful remarks, we have generally a something occurring which upsets the gravity of the whole by its childish absurdity.

Though there are several methods pursued by breeders for the improvement of flocks, the one most in vogue is that of choosing individuals of the same family, and breeding *in* and *in*; but it is generally allowed to be a plan, requiring for the safety of the flock either very great skill in selecting the males and females, or only to be followed to a very limited extent. The object in breeding *in* and *in* is to strengthen good qualities, and get rid of bad ones as speedily as possible; and it is plain, that, if we happen to select animals with slight imperfections, these imperfections will become hereditary, and will go on assuming a worse and worse type, till the breed is destroyed. Culley, however, is of opinion, that crossing with a different stock is not necessary to keep up size, hardiness, &c., and instances the wild cattle in Chillingham Park, in the county of Northumberland, which having been confined for several hundred years without intermixture, must have bred from the nearest affinities, and yet are just as they were five hundred years since.

In spite, however, of such insulated conclusions to the contrary, the system of breeding *in* and *in* where the slightest defect exists, proves as destructive to flocks, as marriages of near relations to the human kind. We would not witness an every day entailment of diseases, if people would forego their unnatural love of money, and cease their endeavours to keep it in the family by forming matrimonial alliances with those who are near of kin. The law of God forbids us to wed those who stand in certain degrees of propinquity; but if we avail ourselves of the limits of this law, and marry on its verge, we and our descendants a certain number of times, misery must infallibly be the lot even of the tenth generation, and instead of being the fathers of a mighty people, few and full of sorrow will be the days of our children; while, in place of retaining in their possession our darling wealth, it will e'er long pass into the hand of the stranger.

Our position, however, will be strengthened by drawing attention to insulated portions of our race, where the effects of such a system are exhibited on a considerable scale. The members of the Society of Friends were at one time supposed to be, of all others, the least subject to insanity; but the very

reverse is the case, being, from the limited nature of their sect, driven to frequent intermarriages, and to a consequent deterioration of the most active part of the human frame—the brain; and it is for the same reason that almost every royal family contains a large proportion of idiots, or, at the best, persons of very weak understanding; and such will continue to occur, till legislators fall on some plan of striking at the groundwork of the mischief.

If the laws of God and man define to us so clearly the evils of intermarriage; and if, as all animals are constructed on one grand plan, we admit the proximity of the sheep to the human race, it follows, that what is destructive in this respect to the one, is destructive to the other, and that we should seek, by a nearly similar, if not wider range of rules, to obviate many of those diseases of which, when under our protection, they are so frequently the subjects.

The preferable and most common practice is to breed from different families of the same race, the males of which are interchanged after they have had shades of difference impressed on them by the influence of various soils and treatment, so that the defects of each family are gradually lost, and their valuable properties are gradually heightened.

Mr. Culley for many years hired his rams from Mr. Bakewell, at a time when other breeders were paying a liberal price for the use of his own. Much good has been done by making the rearing of superior rams a separate pursuit, and letting them out to distant parts of the country, in this manner diffusing some of the most valuable points of particular breeds, and leading to a spirit of competition. The practice has been reprobated, but we presume, rather in a hasty manner; for, with all its attendant evils, such as leading to deception by what is termed the *making up* of rams, it possesses excellencies which will, we hope, lead to its continuance.

The only other method of improving a breed is by crossing two distinct races, one of which possesses the properties it is desirable to acquire, and wants the defects we wish to remove. This, however, is a measure not to be recommended, and only to be resorted to when neither of the others will do, for it is scarcely possible to obtain the desirable properties, without at the same time imparting qualities sufficient to neutralize them, and with which, in fact, we would rather dispense. To cross, as Mr. Cleghorn remarks, any mountain breed with Leicester rams, with a view to obtain a propensity to fatten at an early age, would be attended with an enlargement of size, which the mountain pasture could not support, and the progeny would be a mongrel race not suited to the pastures of either of the parent breeds.

Whenever we attempt crossing, we should select well-formed parents, and if enlargement of the carcass is wanted, the progeny should be better fed than its originators, the size of which should not be much disproportioned at first, as nature in every case abhors sudden extremes, and does every thing in the most gradual manner. It is much better when some increase has been produced to bring the breed to the required size by one or two crossings.

No animal varies more than the sheep, and no one so speedily adapts itself to soil and situation; it would almost appear that nature, convinced of the exceeding utility of the animal, had given it a constitution of so pliant a nature as to enable it to accommodate itself to any climate, for though its natural situation, like that of man, appears to be the wine countries, yet with him it has spread to every quarter of the globe, becoming impressed at every change with some peculiarity, alterable only by a change of situation, varying, we might almost affirm,

with the weather, for where the temperature is equal, there does the animal preserve unchanged an atmospheric stamp, and defies our efforts to alter the breed; while, under a fluctuating sky, we can model it at will, and with common care secure them for years in one undeviating course. These changes, incident to climate, are called, in philosophical language, acclimation or the working of a power inherent in most animals and vegetables, by which they are suited, within certain limits, for bearing up against removal from their ordinary localities, and assuming a different cast as the place of their exile may differ in degree from that which they have left.

This may be rendered very plain by a sketch of what has occurred in Galloway within the limits of our ordinary writings, which are unluckily “few and far between.” (Consult Chalmers' Caledonia.)

The native sheep of the Highlands of that district is supposed to have been a small handsome white-faced breed, at least so thinks John MacLellan, who wrote an account of Galloway in 1650, from the wool being much praised and eagerly bought up by the merchants, which would not have been the case if taken from the black-faced animal; yet how happens it that at present the native breed exists only in the lower parts of Kirkcudbrightshire, the high country exhibits black-faced sheep, which, after every trial, have been found best adapted to the climate and pasture of the moors and highlands, while Chalmers owns that it has not been ascertained when or whence this hardy breed were brought to their present locality? Why, it is tolerably plain that though the white-faced sheep might be placed there originally, yet they would speedily lose every trace of their origin when placed on a hilly country, and subjected to the slow but certain influence of peculiar food and climate.

Chalmers remarks that the black-faced sheep superseded the goats, which were a source of wealth to the farmers, and more saleable than the latter; and it is exceedingly probable that, as the old white-faces began to change their appearance and became gradually able to stand the rigours of a mountain fare and winter under a dun skin and short rough wool, in like manner would they recommend themselves as the best of all stock to the hard driven agriculturist.

Several breeds of the English flocks were introduced about 1810 into the lowlands of Galloway, and a Spanish breed was at the same time sent thither by the wool society, for the purpose of experiment, but it appears that the sheep of the district were fully equal to any of these foreigners.

Mountain sheep seldom admit of much alteration, even of a temporary nature, their habits being of that quiet kind which renders them hostile to anything like restraint, and are altogether less under the guiding influence of man; it is for these reasons that, when once a flock attaches itself to a range of hills and becomes suited to the soil, it preserves itself for ages apart from neighbouring varieties, and presents, after a long series of years, those qualities in their native purity for which they were noted by the earliest observers.

The reason of a race of animals occasionally thriving so well in a country to which they may be removed appears to lie in their being suited, we may say accidentally, by peculiar conformation to the soil, food, and temperature to which they are subjected. There are some happy climates where, bred from what animals you will, no matter how stunted, the offspring will prove large, vigorous, and every way worthy of being placed at the head of its species. Witness what Mr. Dawson, the manager of the Australian Agricultural Company, says in his journal,

"Both the climate and the soil appear by nature intended to produce fine wool and fine animals too, even from the worst beginnings. The latter seems a paradox. The extensive range afforded to every animal keeps it in good condition, and perhaps the native grasses may have more of good in them than their appearance indicates. However this may be, the climate clearly has a wonderful effect on the size of all animals, even upon man, who is almost universally tall here though born of diminutive parents. From this I am led to believe that the climate governs chiefly, and thus every breeding animal introduced here will attain a size not known in Europe."

Climate is certainly an all-powerful agent, and works wonderful changes, which are well illustrated by the Portuguese, who, after a residence of three hundred years in India, are said to be almost as black as Caffres, and Bishop Heber in speaking of India says, "It is remarkable to observe how surely all these classes of men, (whites—Persians, Greeks, Tartars, Turks, and Arabians,) in a few generations, even without any intermarriage with the Hindoos, assume the deep olive tint, little less dark than a negro which seems natural to the climate." This, however, you may affirm is not to the point, as only embracing theories in regard to peculiar changes in an animal different to sheep, but such is not the case, as what will affect colour in mankind will lead to changes of even a more wonderful nature in it, such as alterations in shade and wool, and as we have seen even in form and texture.

To illustrate the changes that may be occasioned in animals by circumstances even of less apparent importance than that last mentioned, we may adduce the differences that exist between different ranks in almost all countries. Buffon says, that in France you may distinguish by their aspect not only the nobility from the peasantry, but the superior orders of nobility from the inferior,—these from citizens,—and citizens from peasants. The African field slaves in America are extremely different from the domestic servants of the former nation, retaining, as they do, their original peculiarities, from poor living and degraded duties; while the latter have nearly approached to the habits and modes of thinking of their masters, from living with and being well treated under the same roof.

"The South Sea Islanders," says Dr. Elliotson, "who appear to be all of one family, vary according to their degree of cultivation. The New Zealanders, for example, are savages, and chiefly black; the New Hollanders half civilized, and chiefly tawny; the Friendly Islanders are more advanced, and not quite so dark, several are lighter than olive colour, and hundreds of European faces are found among them."

Indeed, the examples are endless which we could readily bring forward to aid our explanations; but these it would be needless to give, seeing it is in the power of every one to study the differences, in form and features, of the classes of society in our own island, and, by so doing, understand the influence of otherwise unimportant and trivial circumstances on an animal at all times so easily moulded to situation as the sheep.

Changes occasioned by climate are always limited to the fleece, horns, and fat, and never extend to those parts, on the unaltered persistence of which the animal depends for its station in the scale of being, as the feet, teeth, and digestive organs; and as most wonder is apt to be occasioned by bony prominences being subjected with as great certainty to the modelling hand of climate and cultivation as softer parts, we give the following extract:—

"One of the most curious modifications (Gardens and Menagerie of the Zoological Society delineated,) produced by cultivation in the domesticated sheep, consists in the augmentation of the number of its horns; two, three, or even four supplementary appendages of this description being occasionally produced in addition to the normal number. Under these circumstances the additional horns usually occupy the upper and fore part of the head, and are of a more slender shape, and take a more upright direction than the others, thus approaching in character to those of the goats, while the true horns retain more or less of the spiral curve that distinguishes those of the sheep. There exists a strong tendency to the propagation of this monstrosity, which is extremely frequent in the Asiatic races, but is also met with in a breed that is common in the north of Europe, and is said to have been originally derived from Iceland and the Feroe Islands. In the latter case it is unconnected with any other anomaly, but in the flocks of the nomad hordes of Tartary it is usually combined with an enlargement of the tail and adjacent parts, by the deposition of fat frequently to an enormous extent."

Of the numerous breeds at present in our island, some three or four are indispensably necessary for the continuance of its prosperity. A very long-wooled sheep, as the Lincolnshire or Teeswater, for the richest grass lands and finest worsted manufactures. The new Leicestershire for less fertile grass land, and for rich enclosed arable land on which the fold is not used, and for coarser worsteds, stockings, coarse cloths, blankets, and carpets. A middle-wooled breed, as the Wiltshire, the Norfolk, or the Southdown, for arable lands on which folding is practised, and for cloths of middle qualities. A fine woolled, as the Ryeland, for the finest cloths, and a hardy race for heathy mountains.—(Marshall on the Midland Counties.)

For choosing a breed we should adopt that which affords the greatest quantity of market produce in return for the food consumed. It was owing to a peculiar view taken of this maxim that so enormous sums were asked and given for the hire of rams at the time Mr. Bakevell brought the new Leicester to perfection.

That gentleman would never have obtained 1200 guineas for the hire of three rams if the speculators had not intended to procure nearly similar prices for the use of the offspring of these animals, and it may be pretty safely affirmed that this traffic, owing to the extent to which it prevailed, was ultimately the cause of much mischief to the breed in question, as inducing many to speculate on what was likely to prove a fashionable article, without caring much for the endurance of the really valuable points.

The tendency to become fat at an early age, though a valuable one in some points is not so in others, as premature decay is always the result, and shews with certainty that a healthy action has not been going on during the life of the animal. Marshall remarks that fat, like charity, covers a multitude of faults, and he is right, for an ill-shaped animal if well fed, has all its angles speedily filled up, and if its ugliness has not amounted to absolute deformity, it acquires that roundness of contour so pleasing to the eye and so apt to mislead us. An animal when loaded with fat cannot be looked upon otherwise than as in a diseased condition, and liable to diseases of many organs, especially of the heart and brain, sudden death on any hurried exertion being far from rare, at the same time that life, from the difficulty of enjoying it is rendered any thing but desirable.

In the valuable work of Meg Dodds, you will see that "Fashion and luxury have lately introduced stall-fed oxen and overgrown sheep, which are better fitted for the tallow-chandler than the cook. They are indeed good for nothing, save to obtain premiums at cattle shows, and deluge dripping pans with liquid fat." And in this every one will agree, excepting always boarding-school cooks and others who depend for their principal perquisites on the over-roasting of oily meat.

The Dishley sheep are admirably adapted to the soil and situation where they were called into existence, and their crosses are now spread over most parts of the country, principally the corn districts, as they are supposed to be the most profitable kind on farms where the best tillage crops are combined with the fattening of live stock; but Marshall supposes they will only continue profitable so long as other breeds of long-wooled sheep remain with thin chins and loose mutton, or in other words, that there are plenty of kinds which would prove equal, if not superior, to the present, if they only received a little well-timed attention.

In breeding and rearing rams, two divisions of these animals are recognized—ram-getters and wether-getters—the former, from their fineness being kept for the procreation of animals like themselves, while the latter from their coarseness, are set aside as fitted only for parent stock for graziers' sheep, the mere grazier liking a ram no worse for having massiveness of frame, and being less scrupulous about his form than the ram breeder, whose grand object is fineness, and who trusts to the ewes for giving the offspring size and substance.

The principal ram-breeders are guided in the choice of their ram-lambs more by blood or parentage than by form, on which, at so early an age, little dependence can be placed; and in the case of the Dishleys, allow them every indulgence from the time of weaning till that of shearing, as they push them forward for the show, and let most of them the first season, while yet yearlings; and it is this early arrival at maturity which, in addition to that formerly mentioned, with justice supposed by some to occasion their early falling off, for, by a law of the animal economy, premature adult age is always succeeded by premature decay, life appearing to be dated from the time the animal enters on the fulfilment of the ends for which it was created.

The quality of the flesh, which can be ascertained only when the animal is in moderately good condition, is a subject more worthy of attention than the early acquiring of fat, seeing it is more difficult to determine peculiarities of this kind at will, and requires long experience to enable a person to pronounce with confidence the state of the muscular parts from the inspection of a living animal. The flesh of different specimens of the same animal varies not so much from breed or descent, as from age, feeding, and exercise; thus, that of the young is soft and gelatinous, the fibres being small, weak, and much interspersed with a substance, termed, from its loose nature, cellular tissue, which exhibits in the spaces between the muscles small masses or layers of delicate fat—the greater bulk of the latter being situated immediately beneath the skin, and occasioning that beautiful rotundity so much admired in children; while, as the animal advances in life, the fibres become firmer, larger, and more approximated, the cellular tissue to a great extent disappearing, and the fat changing from the outward to the inward parts, displays boldly the outline of the muscles, but gives, at the same time to the figure, that portly symptom of good keeping, so unpleasant to the sight when carried

to the extent of aldermanic dignity. All these are, however, varied by exercise, which tends, in a marked degree, to increase the muscular or fleshy parts at the expense of the fat,—the former becoming, when employed within proper limits, large, unyielding to the touch, and in every way opposed to their small flabby contrasts, the results of inactivity, while the colour is heightened from a pale or purple hue to the bright vermilion so justly relied upon by housewives, as a guarantee for the superior qualities of the article. The wild horses in South America, which form the principal part of Indian diet, are said by these epicures to be much improved for the table by gentle labour, and to be quite on a par, when thus cared for, with some of our best beef. This system is only, however, pursued for the purpose of rendering the flesh of their horses moderately firm; but where an opposite effect is wished, it is readily, though cruelly, produced, by putting the animal to a lingering death, examples of which are to be with in the annals of most half civilized nations—as the Spanish mode of whipping pigs, and English custom of baiting bulls, both tending to the same end by so exhausting the vital contractility, as to prevent its last and faint display in the stiffening of the carcass.

Diet, as most people are aware, has a powerful influence on the constituents of the body; thus a rank succulent pasture taints the flesh, or renders it insipid and unpleasant, while a dry aromatic herbage communicates a delightful flavour, and enables people versed in the pleasures of the table easily to discriminate between turnip-fed and grass-fed mutton, and again between the latter and that which has spent its existence on the hills. In Touchwood's Syllabus of Culinary Lectures, attached to the commencement of the Cook and Housewives' Manual, by Mistress Dodds, we are briefly informed, that "mutton is not good under three years old. The best is above five, but is seldom to be got in the market of that age. The black-faced or *short-sheep* are best for the table, though more depends on the pasture than on the breed." More, in fact, depending on feeding and management than on the variety of the animal, though this, of course, is not to be neglected.

Marshall, who touches very slightly on the subject, says, "The flesh of sheep when slaughtered is well known to be of various qualities. Some is composed of large coarse grains, interspersed with wide empty pores like a sponge; others of large grains, with wide pores filled with fat; others of fine close grains, with smaller pores filled with fat; and a fourth of close grains, without any intermixture of fatness. The flesh of sheep when dressed is equally well known to possess a variety of qualities:—Some mutton is coarse, dry and insipid,—a dry sponge affording little or no gravy of any colour. Another sort is somewhat firmer, imparting a light-coloured gravy only. A third plump, short, and palatable, affording a mixture of white and red gravy. A fourth likewise plump, and well-flavoured, but discharging red gravy only, and this in various quantities. It is likewise observable, that some mutton, when dressed, appears covered with a thick, tough, parchment-like integument; others with a membrane comparatively fine and flexible."

*Looseness* is reckoned a bad quality of the flesh of sheep when living, as indicating a coarse-grained porous mutton, and as equally exceptionable with that of *hardness*: while *melowness* and *firmness* are qualities much to be desired, as forming a bappy mixture, deemed by some the point of perfection. The modern or new Leicester breed is particularly distinguished by the lightness of the offal, the bones being one-half smaller than in some other breeds,

and the meat proportionably thicker; while the pelt is thin, and the head small—a thing of some consequence in most parts of England, where that Scottish luxury sheep-head broth is so cordially despised; but what may not be reckoned offal in the slaughter-house, will speedily shew itself as such in the kitchen, by the waste of fat during the cooking process, even in England, where fat meat is so much admired; and it is surely absurd to pay the price of good mutton for tallow, when, if the latter was wanted, it could be procured at a cheaper rate by itself, than when forming the better part of a dear commodity.

The only way in which overly-fat meat can at all be reckoned profitable, is in its application to the wants of the working-classes, whose bodily labour enables them to enjoy rewards which would to others prove displeasing in the extreme, and to digest and assimilate with ease food which, to the sons of sloth, would prove a poison. So far as these wants have been supplied, the attempt of Bakewell has been attended with the happiest results, as he and his disciples have placed, by their well-timed exertions, much good animal food within the reach of the poorer classes, which they must otherwise have gone without; while, in many instances, it has driven bacon from the market, being a cheaper and more palatable commodity, which cannot but contribute to the health of the people, seeing the continued use of salted food is calculated to injure the body, and render it liable to many diseases, especially of the skin. The rapidity is various with which animals acquire fat, much depending on hereditary predisposition and the nature of the food, and much also on the state of the atmosphere, and quiet habits; rest, and a moist, rather warm air, tending greatly to the advancement of the process; some birds becoming fat in twenty-hours of wet weather, and losing it as rapidly. Children that have been emaciated by diseases often resume their original state in a few days; and animals that have been famished, as hogs, afterwards fatten very rapidly. Moderate and repeated bleedings, mild mealy diet, and emasculation conjoined tend to the repletion of the body, and to the rapid deposition of fat; it would appear, that when acquired in this speedy manner, it never possesses the value, in a culinary point of view, that is yielded to such as has been formed slowly, when, as one may say, the worthless particles have had time to be removed, and the remaining part to become really and truly a firm healthy deposit; and it is partly owing to this that animals are never at their best when forced to take on fat at an early age, but are most esteemed by the gourmand when they, as in the sheep, have lived from three to four years.

A disposition to early obesity, as well as a gradual tendency towards that form which indicates a propensity to fatten, is materially promoted by rich food while the young animal is in a growing state, but care is taken that they are never placed suddenly on food much superior in feeding qualities to what they have left: thus very lean sheep are never put to full turnips in winter, nor to rich pastures in summer, they are prepared for turnips on good grass lands, and kept on second year's leys, and afterwards a moderate allowance of turnips, if they are to be fatted on pastures. It is an invariable rule with all good managers never to allow this, or any other animal reared solely for the shambles, ever to lose flesh from its earliest age till it is sent to the butcher, as more food is required to bring them to a certain condition, than to keep them at it; and in the case of the Dishleys, it is customary to keep all in a state of fatness, except those intended for

breeding, and after full feeding on turnips during winter and spring, to finish them on the first year's clovers early in summer, when the prices of meat are usually the highest, so that this variety is always fit for market at eighteen months, while the Highland breeds, though prepared by means of turnips a year at least sooner than in former times, do not usually go to the shambles till from three to four years old.—(*Cleghorn on Agriculture.*)

The influence of sex on the nature of the offspring has long occupied the attention of scientific individuals, and is a subject which, though mysterious in some respects, is yet plain in others, and these, from their interesting nature and the valuable aid they afford the breeder, cannot but be highly acceptable when laid in a simple form before the agriculturist.

Many qualities and diseases are known to be hereditary; of the former we may instance peculiarities in walking and writing, a passion for intoxicating liquors and other habits too trivial for mention; and of the latter, gout and pulmonary consumption, which are well known to harass a family for many generations.

Features and complexion, in like manner, may remain for ages of the same undeviating cast and colour; thus the Jews of to-day are the very counterparts of the Jews of three thousand years back, and in all likelihood will so remain till the end of time. The same may be said of many other nations,—but of this no more, as objects of a more pressing nature demand attention.

In general the qualities of the male and female parents are visible to an equal extent in the offspring as is well exemplified among horses, in the mixture of the blood and the cart breed, where the great difference in form and character is nicely blended, but occasionally the peculiarities of the male or female are visible only on some particular part of the offspring, as in the crossing of the merino ram with the Ryeland ewe, when the former affects the fleece, and the latter the carcass, nor do the impressions of one or other, especially of the male, cease on the birth of the fruits of a connection, for though he may have no further meeting with that female, yet her succeeding offspring tinged with his peculiar colour, or modelled after his form, a circumstance well illustrated by what came under the notice of the Earl of Morton. His lordship bred from a male quagga and a mare of seven-eighths Arabian blood, a female hybrid, displaying in form and colour her mixed origin. The mare was then given to Sir Gore Ouseley, who bred from her first a filly and afterwards a colt, by a fine black Arabian horse, but both these, in their colour and the hair of their manes, strongly resembled the quagga. This isolated fact would be, however but of small value if unsupported by others, which are luckily now of common occurrence, among which the following tends strongly to its corroboration:—In the Philosophical Transactions for 1824, Dr. Wollaston relates that D. Giles, Esq., had a sow of the black and white kind, which after littering by a chesnut boar of the wild breed, was put some time after the death of this, to boars of quite a different variety, yet the offspring were covered with chesnut marks so as closely to resemble the long departed animal.

The progeny of most domesticated animals often bear a striking resemblance to the grandmother or grandfather, and it is well known that the desired changes cannot be effected on a breed, or that the desired breed cannot be produced, till the third, fourth, or even the fifth crossing, so that the importance of having few defects in a stock will be readily admitted, seeing their debasing consequences are

carried through whole generations, and that though absent in one remove, yet that they may appear in the next. Both sire and dam should be chosen as free from defects as possible, a thing often neglected in rearing domestic animals, especially horses, where the erroneous opinion is in vogue, that no matter how debilitated and worn out may be the dam, yet that if coupled with a young and perfect sire, a healthy handsome offspring will be the issue; than which idea nothing can be more absurd, as such animals, if left to nature, would seldom or never come in contact, owing to the one party never attaining a decrepit age, but perishing on its verge.

The sex of the progeny is supposed to be the result of the relative ages of the parents: thus issue from a young male and an old female will in general be feminine, while that from an old male and a young female will generally be masculine; and it has been proposed to turn this, apparently a law of nature, to account, in the management of flocks, as it must often be of consequence, to obtain, at will, a considerable increase of the sex most wanted. On this subject there will be found an interesting paper in the first number of the Quarterly Journal of Agriculture, entitled "A method of obtaining a greater number of One Sex at the option of the proprietor, in the Breeding of Live Stock," and from this we extract the following:—

"In the *Annales de l'Agriculture Française*, vols. xxxvii. and xxxviii., some very interesting experiments are recorded, which have lately been made in France, on the Breeding of Live Stock. M. Charles Girou de Buzareingues proposed, at a meeting of the Agricultural Society of Séverac, on the 3d of July 1826, to divide a flock of sheep into two equal parts so that a greater number of males or females, at the choice of the proprietor, should be produced from them. Two of the members of the society offered their flocks to become the subjects of his experiments, and the results have now been communicated, which are in accordance with the author's expectations.

"The first experiment was conducted in the following manner:—He recommended very young rams to be put to the flock of ewes from which the proprietor wished the greater number of females in their offspring; and also, that during the season when the rams were with ewes, they should have more abundant pasture than the other; while to the flock from which the proprietor wished to obtain male lambs chiefly, he recommended him to put strong and vigorous rams, four or five years old. The following tabular view contains the result of his experiment:—

Flock for female lambs.			Flock for male lambs.		
Age of the mothers.	Sex of the lambs.		Age of the mothers.	Sex of the lambs.	
	Males	Fem		Males	Fem.
Two years,	14	26	Two years,	7	3
Three years,	16	29	Three years,	15	14
Four years,	5	21	Four years,	33	14
	—	—		—	—
Total,	35	76	Total,	55	31
Five years and older,	18	8	Five years and older,	25	24
	—	—		—	—
Total,	53	84	Total,	80	55

N.B.—There were three twin-births in this flock. Two rams served it; one fifteen months, the other nearly two years old.

N.B.—There were no twin-births in this flock. Two strong rams; one four the other five years old, served it.

"The general law, as far as we are able to detect

it, seems to be, that when animals are in good condition, plentifully supplied with food, and kept from breeding as fast as they might do, they are most likely to produce females. Or, in other words, when a race of animals is in circumstances favourable for its increase, Nature produces the greatest number of that sex which, in animals that do not pair, is most efficient for increasing the number of the race. But if they are in a bad climate, or on a stinted pasture, or if they have already given birth to a numerous offspring, then Nature, setting limits to the increase of the race, produces more males than females. Yet, perhaps, it may be premature to attempt to deduce any law from experiments which have not yet been sufficiently extended. M. Girou is disposed to ascribe much of the effect to the age of the ram, independent of the condition of the ewe."

The point of most importance in breeding is the being trained to the discovery of an animal's defects, and to the right appreciation of such qualities in an opposite sex, as may be able to neutralize them; for it is only by care and a proper application of the faculties which have been bestowed upon us, that we can hope at the present day either for the attainment or the keeping together of money or its representatives.

## ON THE WEED IN HORSES.

BY A COUNTRY BLACKSMITH.

(From the Veterinarian.)

MESSEURS EDITORS,—Being a constant reader of the Veterinarian, and also, when the fancy strikes me, an occasional contributor, I am often amused at the various views, treatment, and claims to being the first who have pointed out the characteristic symptoms of certain diseases. On perusing a late number of your journal, I find a paper on *Weed*, by Mr. Anderson, of Leicester, wherein he states that the disease is not described in any prior number of the Veterinarian. Why, thinks I, this at least must be a new discovery, as that work now treats upon all diseases; but as I am not in the practice of pinning my faith on any man's sleeve, I must look as I proceed. Accordingly, the volumes of the Veterinarian are unshelved, and carefully examined; and after an hour or two's search, Mr. Anderson appears to be right. What does this mean, thinks I. A common disease, known to every blacksmith and farrier in Scotland these hundred years and more, never published before! I must examine the old authors. After half a day's search, the case was bad as ever; the more modern and post rate—the inestimable *Blaine and Percivall*, and "*The Horse?*"—worse and worse; not such a thing as *Weed* in them all! At last I stumbled upon an insignificant volume of about 300 pages, by Robt. Thomson, of Auchterarder, now of Beith, published eight or nine years ago, where I find *Weed*, inflammation of the Absorbents. I read the Essay, and was astonished at the coincidence of the two, "Aha, aha! Mr. Anderson," exclaimed I, "you have been pirating;" and I strongly suspect Mr. Thompson has been pirating also, from the Lectures of Professor Dick. However, as it is the common established doctrine of the country blacksmiths of Scotland, I will copy it verbatim for the amusement of your readers.

"INFLAMMATION OF THE ABSORBENTS (*WEED*).—The absorbent vessels are of a thin pellucid appearance: they are, perhaps, as numerous as the blood-vessels, and, like the veins, are furnished with valves. They exist in all the vascular parts of the

system, their office being to take up lymph from the cavities, the chyle from the intestines, and substances that are applied to the surface of the body. Absorbents are divided into two classes, *lacteals* and *lymphatics*; the mouths of the first being placed upon the internal coat of the intestines, and whose office is to absorb the nutritious parts of the food; the last being to absorb lymph and serum from the different parts of the system; and both to be mixed with the blood for the support and renovation of the body. They prevent dropsies from taking place, by removing the superfluous secretion; they also remove the worn-out parts of the body into the circulation, either to invigorate other parts of the system, or to be thrown off as excrementitious.

"The disease called *weed*, or by farriers *shots of grease*, is inflammation of the absorbents and their glands. The class of absorbents that are principally affected in this disease, are the superficial and deep-seated lymphatics of the hind extremities; the first having their origin in the skin and cutaneous cellular membrane, where they form numerous ramifications running along with the superficial veins: a very large branch may be distinctly felt, when distended, by the side of the saphena major vein of the thigh. The deep-seated take their origin from the feet, and descend along with the corresponding blood-vessels. Both the superficial and deep-seated form a beautiful anastomotic net-work, and all assemble in the superficial and deep-seated glands of the groin—the *inguinal*—there they enter and form a plexus, from whence several large branches proceed to their common termination, the thoracic duct. In this disease the glands of the groin become inflamed, swelled, and tender. The fluid passing upwards in the vessels is thereby checked, and the vessel in consequence becomes distended, as far down as the next valve, and so on to the next downwards. The whole vessels are thereby soon distended; the leg becomes enormously swollen, and large quantities of lymph and serum are thrown out from the arteries and absorbents into the surrounding cellular membrane, which, in some cases, it takes the whole of after-life to remove.

"Weed generally commences with a shivering fit, and all the other appearances of fever. If the finger be placed upon the groin, the absorbent glands will be found firm and painful, and the animal snatches up his leg when pressure is applied. The principal absorbent vessels along the thigh are fully distended, and from their being in the course of the vein are often mistaken for the veins themselves. The leg begins to swell from above downward, in consequence of the channels being obliterated in the glands, until the vessels become loaded to their minutest ramifications. This causes excessive irritation, and the action of the arteries becomes increased in consequence of the pain. The absorbent vessels are now blocked up, and unable to relieve themselves. The consequence of which is, that large quantities of blood, lymph, and serum are thrown out into the surrounding cellular membrane in a few hours, so as often to enlarge the leg to twice its natural thickness. The effusion may also at times extend to the sheath, belly, and udder. In some rare cases suppuration has taken place, and sometimes, still more rarely, in mortification of the limb, and death.

"There is considerable resemblance betwixt this disease and dropsical swelling of the legs; also farcy, and water-farcy: they may, however, be easily distinguished. Weed begins with swelling and tenderness in the groin, which fall downwards, and are generally confined to one leg. It comes on suddenly, generally in a few hours, the animal being

otherwise in good health previous to the attack. Dropsy, again, appears first in the extremities of the legs, and the swelling proceeds upwards. The swelling attendant on farcy is most common in the fore-legs, and is accompanied with farcy-buds in the course of the lymphatics. The swellings attendant on water-farcy are often very great, two or all of the legs being affected; and often the swelling extends to the breast and belly: watery blotches break out in various parts, and when the joint becomes affected, there is excessive lameness.

"The causes said to produce this disease are sudden changes of diet, as from hard to green food, cold and moisture, overloaded stomach, and want of accustomed exercise. There is something remarkable in these, as it is found in general that those hard-working horses that have been attacked with weed are most frequently so on the first days of the week, or any other days when the animal is not receiving his accustomed daily exercise, while food has been given in immoderate quantities, and soft in quality. Horses once affected, are more subject to it than others.

"The cure for this disease is much the same as for other inflammatory affections. As soon as observed, a large quantity of blood should be drawn from the system, and a brisk purge immediately given. If the physic does not operate in the usual time, more ought to be given. When the swelling is very large, much relief will be given by puncturing the large absorbent vessel, which will be felt by the side of the vein; and more punctures may be made in different places, where the effusion has taken place, which will greatly reduce the swelling. It is a common practice with farriers to bleed in the toe, with a view to take off the bad blood. In this they are mistaken, as it may be said they begin at the wrong end for doing much benefit. If blood can be drawn from the thigh, or any other part, in sufficient quantity, it will be more certain, and have a better effect. Rowels are also much used in the thigh, but are not of much benefit; as before they can operate, the disease is generally checked by the efforts of nature. Frequent bathing with hot water is an excellent remedy, and wrapping up the legs in bandages of flannel, bay, or straw, supports the distended absorbents, and enables them to relieve themselves. Diuretic medicine may be given every day, or every other day, when the inflammatory action has ceased; and stimulants of turpentine may be used externally with advantage in the latter stages, to arouse the action of the absorbents anew, and to cause absorption of the effused lymph.

"When active remedies are not employed in the very commencement of this complaint, the swelling often remains, and resists every remedy; where rowels and bleeding in the toe are rather injurious than otherwise when they alone are depended upon as cures, as they persuade the proprietor that nothing else is necessary to be done, and by this delay the time for removing the swelling is lost. Exercise at the beginning of the disease is also dangerous; for most cases that end in death are owing to this cause. The disease is seldom fatal when properly managed.

A COUNTRY BLACKSMITH AND FARRIER.

The Russian exports for the year 1835 appear to be 5,012,217 ro. less in amount than those of 1834, and the imports 4,777,827 ro. less. The want of grain and raw produce in the interior, in consequence of a failure in the crops, has thus had a very material influence on the business connected with articles of export, and also on the importation of foreign goods.

## HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND.

The stated half-yearly general meeting of this Society was held in their Hall, on Monday, June 27, at which there was a full attendance of the members, including the Marquis of Tweeddale, the Marquis of Lothian, Viscount Arbuthnot, Lord Greenock, Hon. General Stuart, commanding the forces, Sir John S. Forbes, Sir John Campbell, Sir John Hope, Sir James Foulis, Sir William Seton, Sir David Maxwell, and Sir A. C. Maitland Gibson, Barts., and a numerous list of gentlemen extensively connected with every district of Scotland. The Directors and Officers of the Society appeared in deep mourning for the Duke of Gordon, who held the office of President when he died,—and in taking the chair the Marquis of Lothian, the Vice-President, as the organ of the Society, made a most appropriate and feeling address on the occasion.

The SECRETARY reported the proceedings of the Directors since the general meeting in January, and the premiums offered by them for the current year. He referred the members to the printed list of those premiums, distributed in the room, a volume of no inconsiderable size, extending to 68 pages, and which includes premiums for Essays and Reports under 25 different classes or subjects, for information by means of which rewards are offered to the liberal amount of 367*l.* Again, under the general head of Experiments and Improvements, comprehending the minor sub-divisions of waste lands, crops and culture, pastures, exhibitions of the various descriptions of domestic live stock at numerous local competitions, the products of the dairy, woods and plantations, cottages, &c., premiums are offered to the amount of 803*l.*;—add to these the great general show of live stock to which the different divisions of the country most liberally contribute by much the larger portion, and including the premiums fixed for competition in future years, there is a very handsome aggregate in the present premium list.

Mr. MURRAY, of Murrayshall, reported the state of the arrangements for the general show of live stock and agricultural meeting, which is to be held at Perth on the 7th of October. They are nearly completed. At their meeting, on the 30th of April, the four counties of Perth, Forfar Fife, and Kinross, had named members to form the General Committee of Superintendence; and under the arrangement of Lord Kinnaird, the convener of the committee, and Mr. Richardson, the deputy-convener, what remained to be completed was in satisfactory progress. Through the good offices of Mr. Maule, the member of Parliament for the county of Perth, the Board of Ordnance have very readily given their consent to the use of the depot for the show-yard, which, from the facilities it affords, will occasion a comparatively small expense in fitting up. On this occasion, various improved regulations for these great meetings, which experience has enabled the society to mature, will come into operation for the first time; such are those which prescribe that no animals in the classes of neat cattle shall be shown in the competing classes at an age exceeding four off,—that stock from any part of the United Kingdom may compete—that breeders as well as the exhibitors of prize animals shall be noticed, and in the classes for bulls, rewarded with honorary medals. It is intended to have a sale within the show-yard on the day immediately following the meeting, open to the stock of all who have been exhibitors in any class, and the Judges are to remain over that day, so that the benefit of their opinion will be obtained by those members and agricul-

turists who desire it. The premiums for the best samples of wools are to be decided on the 12th of July, the day of the Perth wool fair, and the prize specimens will be retained and exhibited at the show. Finally, the arrangements for the dinner are in satisfactory progress; it is understood the Committee would wish to accommodate 1000, if they can manage it. The progress of all details was quite satisfactory to the society.

The Marquis of TWEEDDALE made some valuable practical suggestions on the rules which should guide the decision of the premiums for sheep and wool; and, on motion of his Lordship, seconded by Lord Arbuthnot, a numerous deputation of Directors was named to give their attendance and co-operation at Perth, along with the Vice-Presidents of the Society, and the Committee of Superintendence, the Marquis of Douglas and Clydesdale, one of the Extraordinary Directors, to be Preses of the deputation, a duty which his Lordship had readily agreed to discharge.

Professor Low said that, in the absence of Mr. Robison, Chairman, the duty had devolved upon him of reporting the proceedings of the committee on machinery since the last general meeting; and he had pleasure in stating that within this short period several useful machines and many interesting communications had been under the consideration of the committee. The first of these was an elegant model of a machine for compressing peat, transmitted by Lord Willoughby de Eresby, and made after a design by his Lordship; and not only had Lord Willoughby presented the model, but he had offered to transmit a full-sized machine to Edinburgh, that it might be tried in the presence of the committee. This offer, he need not say, had been accepted of; and the committee recommended that the thanks of the society be voted to Lord Willoughby for his liberal attention and useful communications. A machine by Mr. Leckie, of Haddington, might be termed a seed-sifter. In this machine Mr. Leckie had the merit of applying a known principle to a new purpose. It consists of a series of horizontal sieves of fine wire, moved by cranks, and is designed to clean the seeds of the smaller grasses more perfectly than is effected by the common fanners. This instrument had been used with success; and the Directors had voted their thanks to Mr. Leckie, with a sum for his model. The next subject to be noticed was Mr. Maule's chain plough. The improvement here consists in the application of a chain to the posterior part of the beam of the common plough, the conducting it through a ring to the end of the beam, and attaching to it the point of draught. The effect of this mode of attachment is to give steadiness to the action of the plough on principles which can be easily explained. The committee proposed that the silver medal should be voted to Mr. Maule, and that an early account should be given in the transactions of his useful improvement. But, besides the ordinary subjects of mechanical improvement, there was one of yet higher interest and more extended application, which had been brought under the consideration of the Directors. This was the possible application of the power of steam to the purposes of tillage; and what might but a few years ago have been looked upon as a dream, was now placed within the limits of reasonable calculation. The contrivances by which the powers of the steam engine had been multiplied and augmented, as exemplified in those beautiful locomotive engines which speed along our railways, showed that this stupendous power was now to have a more extended application to the purposes of life than once could have been conceived. Its application to the uses of tillage was now the



subject of eager experiment. The most extensive of those experiments, which had been carrying on for several years, and at great expense, were by Mr. Heathcoat, M. P., who had covered his rights of invention by several patents. The engines used by Mr. Heathcoat are of great power, and so formed that, while they moved over a short space, the tilling instruments moved with comparative velocity. Mr. Upton, of London, too, had pursued the same object, and by means calculated, perhaps, to be made more generally available to the farmer, for his endeavours had been directed to the construction of locomotive engines suited to the common purposes of the farm. But, by whatever means the object was to be attained, we could scarcely doubt of the ultimate triumph of mechanical invention over all difficulties; and it had appeared to the Directors that the time has come when this society might with effect come forward to call the attention of agriculturists and ingenious mechanics to the subject. With this view he had now to propose that the Directors be empowered to offer a premium of 500*l.*, for the first successful application of steam to the purposes of tillage. After some discussion this was agreed to.

### BRASSICA—TURNIPS.

[The subjoined valuable account of the different varieties of turnips, is extracted from the "AGRICULTURISTS' MANUAL," a work recently published by Lawson and Son, of Edinburgh, seedsmen to the Highland Agricultural Society. The work is such as we should have expected from gentlemen possessing such knowledge, industry, and zeal, as the Messrs. Lawson. The agriculturists are much indebted to them for this valuable addition to the stock of practical agricultural works, and will we are persuaded readily evince their approbation by possessing themselves of a publication embracing a complete history of all the varieties of grain, pulse, roots, and grasses, worthy of being cultivated by the British Farmer.—Ed. F. M.]

### BRASSICA CAPESTRIS RUTABAGA.

(RUTABAGA OR SWEDISH TURNIP.)

In its specific characters the Rutabaga, or Swedish Turnip, differs from those of the Summer rape, of which it is only a variety, in having larger fleshy swollen globular or subrotund roots, while those of the rape are small, fusiform, and hard.

The Swedish turnip is harder than any of the common sorts (varieties of *B. rapa*), and in addition to its being more esteemed as food for horses throughout the turnip season, is better adapted for spring feeding generally. It, however, requires a somewhat stronger and superior class of soils, together with a greater allowance of manure, but may, upon the whole, be considered equally if not more deserving of attention than the others, notwithstanding which its cultivation has hitherto been comparatively little attended to in some districts of Scotland. Swedish turnips are generally sown from about the middle to the end of May, and 2 to 2½ lb. of seed per imperial acre, is, under ordinary circumstances, considered sufficient. They possess an advantage over the others in being easily transplanted, so that blanks in the rows either of the Swedes or other sorts (when they occur), are by that means easily filled up.

The varieties are as follow:—

1. RED OR PURPLE-TOP YELLOW SWEDE.—Upper part of the root of a dull reddish colour; under yellowish. This is held in great esteem by the generality of cultivators. Of it there are several sub-varieties, which have been obtained by a repeated judicious selection of the roots from which the seed-stock has been saved, of these the next two may be mentioned.

2. BALLANTYNE'S NEW IMPROVED PURPLE-TOP.—So named from being originally brought into notice by Mr. Ballantyne, nursery and seedsman, Dalkeith. This is an improved stock of the last, and is more remarkable for its smallness of neck, uniform deep purple colour, and symmetry of shape and equality, than for the size of its roots.

3. COX'S NEW IMPERIAL.—This variety may be considered intermediate in colour between the purple and green-top sorts; its roots often acquire a large size, but are rather irregular, and of a somewhat coarse-like quality. Such sub-varieties are frequently of short duration, being liable to degenerate when the careful selection of the roots to be grown for seed is not attended to, and they often only retain the name for such time as their seed-stocks are grown by the parties with whom they originated, and it occasionally happens that stocks procured in different parts by the same means, and known under different names, may yet be the same in other respects.

4. GREEN-TOP SWEDE.—Upper part of root dull green; under yellow.

This variety is of longer standing than the purple-top (No. 1.), since the introduction of which less attention has been bestowed by cultivators (in Scotland at least) towards procuring improved stocks of the green-top Swede, which has on that account fallen somewhat in the estimation of growers. But when the same care is taken in selecting the roots grown for seed, the green-top may be considered as being equal in merit to the purple.

5. WHITE SWEDE.—Roots irregularly shaped, being often divided or branched; white under the surface of the ground, and greenish above.

The white Swede may be considered as the most inferior and unimproved variety; it is at present scarcely in cultivation, and when it appears amongst others, is considered as the effects of degeneracy, or as arising from a bad stock of seed. With the white Swede, the following generally admitted distinct species may, from its apparent unimportance be compared.\*

6. BRASSICA OLERACEA RAPA, BRASSICA NAPO-BRASSICA, TURNIP-ROOTED CABBAGE.—Continental writers seem generally to agree in recommending the cultivation of the turnip-rooted cabbage, from its roots, in addition to their being naturally hardy, growing under, or almost under, the surface of the ground, whereby they are enabled to resist the severest winters; but it does not seem to deserve the attention of British agriculturists, as the Swedish turnip, which is evidently much superior, is sufficiently hardy to withstand the generality of the most rigorous winters to which this country is subjected; and as on those parts of the Continent

\* A variety of Swede which was introduced a few years since to England from Sweden by Mr. Hilliard, to which he has given the name of Thorpland Swede, is said to be superior to any of the above, but as neither seeds nor roots have as yet been obtained for the Museum, an opportunity has not been afforded of comparing this sort with the others.

where the other is generally cultivated, the Swedish turnip has not yet, or is only recently fairly introduced, it is very probable that, when the superior merits of the latter become more fully known and appreciated, the culture of the turnip-rooted cabbage may by it be entirely superseded.

Several varieties of turnip-rooted cabbage which were grown in the nursery at Meadowbank, from seeds procured from various parts of the Continent, differed little from the white, or what is generally termed a very bad Swedish turnip, except in their leaves, which very much resembled those of some common varieties of kale.

## II. BRASSICA RAPA—(VAR. COMMON TURNIP.)

The common turnip bears the same relation to the annual turnip rape, that the Swedish turnip does to the summer rape.

The varieties of the common turnip are a great deal more numerous than those of the Swedish, compared with which they are also in general of much finer symmetry, as well as of a larger size, differences which may be partly accounted for from the common turnip having been longer in, and received a more extended cultivation. One circumstance, however, peculiar to the Swedes, is, that the larger the size to which they grow, a given weight of roots is found to contain a greater portion of nutritious matter, while the common turnips, on the contrary, after attaining to beyond a certain size, lose a proportionate quantity of that most valuable part of their composition (see *Hortus Gramineus Woburnensis*); which circumstances tend to show the necessity for, and the advantages to be derived from, devoting more attention to the procuring of large and well-formed varieties of Swedes, and also to the procuring of hybrid varieties between the Swedes and common turnip, which may be found to combine the size and symmetry of the best varieties of the latter, with the above-mentioned valuable properties peculiar to the Swedes. Common turnips are divided into two important classes, viz. the white and the yellow rooted. The former, comprehending those which are most tender, and arrive soonest at maturity, and which are best fitted for using during the earlier part of the season; and the latter, with very trifling exceptions, such as, from their hardness, and period of arriving at perfection, are intermediate between the white sorts and the Swedes. The period of sowing common turnip should be regulated according to the length of time that the variety to be grown requires to arrive at maturity; for when allowed to remain on the ground in what may be termed growing weather, or before winter sets in, after they attain to full size, they become soft, spongy, and inferior in quality; a general rule, however, is to commence sowing the yellow sorts about a fortnight after the Swedes, or about the beginning of June, and to follow with the white sorts from the middle till towards the end of that month. The same quantity of seed will suffice as in the case of the Swedes (2 to 2½ lb per imp. acre), under ordinary circumstances, but some cultivators recommend sowing about ¼ lb. more, to provide against the attacks of the turnip-fly, and other casualties, to which they are more liable than the others, while at the same time the advantage of filling up the blanks by transplanting, is in the case of common turnips scarcely practicable.

\* *Yellow Turnips, varieties of BRASSICA RAPA, which are more particularly suited for field culture. Those marked thus\* are also grown as garden turnips for the table.*

7. DALE'S TURNIP, OR DALE'S HYBRID TURNIP.—From the circumstance of this variety being a mule or hybrid between the green-top Swede and white globe, procured by repeated impregnation, it may be presumed that it might with equal propriety have been included amongst the varieties of *Brassica campestris rutabaga*, or Swedish turnip. It, however, bears a much greater affinity to those of *B. rapa*, inasmuch as its leaves are also rough, and of a vivid green (not glaucous) colour, and in its roots being somewhat similar in form and texture. It has received the name of Dale's Hybrid, from being first raised and brought into notice by Mr. Robert Dale, an intelligent farmer at Libberton West Mains, near Edinburgh, who having in 1822 or 1823, received a few ounces of seed of a new hybrid variety of turnip from the late James Shirreff, Esq., of Bastleridge, Berwickshire, sowed the same, the produce he found very much to resemble the Swedish in shape, and from which by repeated selection and impregnation, he at length obtained this esteemed variety, the distinguishing characteristics of which are—foliage strong and luxuriant; roots of a large size, oblong shape, and of a lightish yellow colour, with light green top, having also a small neck and tap-root. The shape of the root, however, although generally oblong, is rather apt to vary, being sometimes almost globular, but its more material characteristics of large size and luxuriance of growth are uniformly the same. Compared with any other of the common yellow field sorts, it is found to arrive sooner at maturity, and consequently may be sown at a later period of the season; while at the same time it is equally hardy, or at least has been found sufficiently so to withstand the severest winters which have occurred since its introduction. (For farther information concerning this variety, see a paper by Mr. C. Lawson, in the *Quarterly Journal of Agriculture*, vol. ii.)

8. NEW PURPLE-TOP HYBRID TURNIP.—In its general appearance this variety seems nearer in relation to the Swede than Dale's Hybrid; like it, however, it has the rough vivid green root foliage by which the varieties of *B. rapa* are so easily distinguished. Judging from specimens of roots sent to the Museum by Andrew Longmore, Esq., Ratter, and which were raised by him from seed grown by Grant Duff, Esq., of Eden, Banff, this seems likely to become a very useful turnip for using in the spring months. Most of these roots were of a slightly oblong shape, of a greenish-purple colour on the top, and light yellow or almost white on the under surface. They were all remarkably firm in texture, and rather late in beginning to shoot.

9. LARGE LAURENCEKIRK YELLOW TANKARD.\*—So named from having been originally selected and brought into the notice of cultivators by Mr. Robert Scott, Laurencekirk. At first sight this may be mistaken for Dale's Hybrid, like which it grows a good deal out of the ground, but is distinguished by its more oblong and more uniformly shaped roots. It is a valuable acquisition, being also, like that variety, early in arriving at maturity, but generally considered rather less hardy, and like it also yields a bulky crop.

\* Tankard is a name applied to such common field turnips as are of an oblong shape, and the roots of which in general grow a good deal above the surface of the ground. Such oblong varieties, however, as approach nearest to a round or globular form are sometimes termed decanter, or decanter-shaped turnips.

10. **LONG CAMBRIDGESHIRE YELLOW TANKARD.**—This variety, which is scarcely known in Scotland, is grown to a pretty considerable extent in Cambridgeshire and Suffolk, where it is also sometimes known by the name of Pudding Swede, which name it seems to have acquired more on account of its hardness of texture than from any other resemblance which it bears to any of the true Swedish turnips. Its roots are much longer in shape than those of any other yellow field turnip, of a lightish yellow colour with green top, and in general grow more than half under ground.

11. **PURPLE-TOP YELLOW TANKARD.**—Root bright yellow with a purple-top, of a somewhat irregular long or tankard shape. This variety was formerly grown in some districts chiefly in England, but is now nearly out of cultivation; nor does it seem entitled to any particular share of attention, being altogether a coarse-like inferior sort, and not capable of yielding near such a bulky crop as either of the three last.

12. **COMMON OR OLD RED, OR PURPLE-TOP YELLOW BULLOCK, PURPLE-TOP ABERDEEN.**—Leaves comparatively short, spreading, of a dark colour, and collected into a small neck at their base; root globular or somewhat flattened, of a reddish purple colour above, and deep yellow under the surface of the ground, of medium size; tap-root very small. This is an old and very deservedly esteemed variety, and of those commonly cultivated is considered by some to come nearest the Swedes in hardness and solidity of texture.

13. **BERWICKSHIRE BORDER IMPERIAL PURPLE-TOP YELLOW.**—This, which may be considered as a superior or improved variety of the last, was first introduced by Mr. R. Hogg, Nursery and Seedsman, Dunse, Berwickshire; its principal distinguishing characters are, roots somewhat large, flesh and under part of the skin deep yellow, and top of a bright red or purple colour, firmer in texture and harder than the last.

14. **SKIRVING'S IMPROVED PURPLE-TOP YELLOW.**—This is also an improved variety of the old purple-top yellow bullock, and grown to a considerable extent in some of the north-west districts of England. It acquires its name from having been first brought into notice by Mr. Wm. Skirving, nursery and seedsman, Liverpool.

15. **YELLOW ABERDEEN BULLOCK, OR GREFN-TOP YELLOW BULLOCK.**—In the size and shape of its roots this old and deservedly esteemed sort resembles the Purple-top Yellow Bullock (No. 12), but differs in the colour of its top, which is bright green.

16. **OLD SCOTCH YELLOW.**—In size and quality is about equal to the last variety, but its roots are considerably more flattened, and grow deeper, or seem more buried in the ground, and have, from that circumstance, a smaller proportion of green-coloured top, which is also of a lighter shade.

17. **HOOD'S NEW LARGE YELLOW** is a very superior large globular shaped hardy turnip, remarkably perfect in symmetry, and has rather a lightish green top. Introduced by Charles Hood, Esq., an eminent farmer at Inverbrora, Sutherlandshire, a gentleman who has devoted much attention to the cultivation and improvement of field turnips generally.

18. **GORDON'S YELLOW**, is a name under which a very superior variety is known in some of the north-eastern districts of Scotland, and which was originally introduced by Mr. Gordon, an eminent cultivator in Aberdeenshire. It is of a rather ob-

long shape, deep green colour on the top, generally very slightly tinged with red, and appears about equal in merit to the last.

19. **\* ALTRINGHAM YELLOW.**—Compared with the generality of yellow field turnips, this is rather under the medium size, the root however, is of a fine globular shape, and possessed of considerable solidity, with a light greenish top, very small neck, and tap-root.

20. **JONES' YELLOW.**—This variety originated in the neighbourhood of Stirling, where it is still cultivated to some extent; it bears a considerable resemblance to the last, but grows to a larger size, and the yellow colour both of the skin and flesh is deeper.

21. **\* YELLOW GLOBE.**—Roots of medium size; globular, and always nearly under the surface of the ground; top greenish, leaves rather small and spreading. This is a superior turnip both for field and garden culture.

22. **\* YELLOW STONE.**—This variety differs from the last in growing more out of the ground, and having a greener top; in other respects they are pretty similar. As a garden turnip, this is one of the most esteemed sorts.

*\*\* Yellow sorts more particularly suited for garden culture.*

23. **YELLOW MALTA, OR MALTESE GOLDEN TURNIP.**—Roots very small, slightly flattened above, and concave or much hollowed on the under side towards the tap-root, which, as well as the neck, is remarkably small, skin very smooth, and of a bright orange-yellow colour; leaves also very small. For summer and autumn crops this is the most esteemed of all the yellows, but is rather tender and incapable of withstanding frost.

24. **YELLOW PRESTON, OR LIVERPOOL YELLOW.**—This is also an early sort, and bears a considerable resemblance to the last, but grows to a larger size, has longer foliage, and is less hollowed towards the tap-root.

25. **YELLOW DUTCH.**—Roots small and globular, of a pale yellow colour throughout, or very slightly tinged with green on the top, particularly when much exposed to the sun and weather. This is a much esteemed early sort, being of excellent flavour, and very well adapted for using in summer and autumn.

26. **LARGE LONG GARDEN YELLOW.**—Roots about one-fourth part above ground, which is of a greener colour, while that below the surface is of a deep yellow. This is a hardy and rather superior sort, hitherto little known in this country, but grown pretty extensively on the Continent.

27. **SMALL LONG YELLOW, Le Navet de Meaux Jaune, Fr.**—Leaves very small and spreading; root generally entirely under ground, small, and of an oblong or a carrot shape, terminating abruptly at the point; colour light yellow.

At present this variety is little known in Britain. About a century ago, however, either it or the white (No. 45) was more in esteem; they are both of excellent flavour and grown to a considerable extent in some parts of the Continent, particularly in France and Holland, from whence they used to be imported for the London market, their under ground habit of growth protects them in a great measure from frost, and they succeed best on sandy soils.

*\*\*\* White Varieties adapted to Field Culture.*

28. **LAWTON HYBRID.**—This variety, which was raised by James Wright, Esq., of Lawton, Strathmore, may be considered as bearing the same relation to the Swede as *Dale's Hybrid* (No. 7.) Its

leaves are darkish green, rather small and smoothish; roots roundish, or somewhat heart-shaped, being often tapered on the under side; white below, and green above the surface of the ground. They are possessed of more solidity and firmness of texture than most of the white sorts. From its being first brought into notice so lately as 1834, a more extensive cultivation is yet necessary before any thing definite can be said of its merits.

29. LEWISHAM GREEN-TOP OX-HEART.—This is an excellent variety, grown in some of the southern districts of England and in Scotland, has acquired this name from having been first introduced by Messrs. Willmott and Co., Seedsmen, Lewisham; in colour and shape it very much resembles the Lawton Hybrid, but is somewhat softer in texture, and has larger and lighter green coloured leaves.

30. GREEN GLOBE, OR GREEN-TOP WHITE GLOBE.—Roots of a fine globular shape, with a small neck, and tap-root; very white under, and green above the surface of the ground; of medium size, hardy, and firm in texture, but scarcely so much so as the green round (No. 36), than which it arrives at maturity rather earlier. A very fine sub-variety of this is known in some parts under the name of HUNGARIAN GREEN-TOP GLOBE; it is larger and softer than the common sort; also of a fine regular shape, and was first introduced by Adam Ferguson, Esq. of Woodhill, who received its seeds from Hungary.

31. WHITE GLOBE, COMMON WHITE GLOBE.—Roots globular; skin smooth and perfectly white; neck and tap-root small. Although the above description embraces the principal characters of the white globe turnip, yet there is a considerable variety in those to which this name is applied, arising from the degree of care and attention bestowed by growers in selecting their seed roots; and the shape is often not a little affected by the kind and state of the soil in which they are grown. Thus globes of any kind, and particularly the variety here mentioned, when grown on a very superior rich soil, may be said to be forced beyond their natural size, and thereby acquire somewhat of a monstrous or overgrown appearance, losing in a great measure their natural symmetry of shape.

32. POMERANIAN GLOBE.—This variety was introduced some years since from Pomerania, and may be considered as the most perfect globe turnip in shape, as well as the most regular or uniform grower. Its skin is of a smooth white and somewhat shining or transparent-like appearance; leaves smoothish, of a dark green colour, with whitish nerves.

In the Perthshire Agricultural Report for October 1834, the Pomeranian globe is mentioned as being less affected by mildew than most others, a disease which was very prevalent in some districts that season. A rather small variety, but in other respects resembling the Pomeranian, is known in some places under the name of CRYSTAL GLOBE.

33. STONE GLOBE.—This is considered as being the hardest of all the entire white globe turnips. It grows naturally deeper in the soil than the others, and has stronger darker green foliage.

34. RED GLOBE.—Roots medium sized, globular shaped, and firm in texture. This is an old, and in some districts pretty extensively cultivated variety. It is medium early, and generally allowed to be particularly well suited for light soils, and exposed elevated situations.

35. AUTUMN STURBLE, OR SIX WEEKS TURNIP.—Roots much above ground; rather large, of an

irregular globular shape, or in form somewhat between the White Globe (No. 31) and White Norfolk (No. 37), and rather soft. This sort arrives sooner at maturity than any of the others, the Tankard Turnips (Nos. 39, 40, 41) excepted, and from its natural softness of texture should always be sown late, and used before the severe frosts set in. As descriptive of its earliness, it has received the above names, it being suited for sowing in early situations in autumn after the corn crop has been removed, and is also valuable for making up blanks in turnip fields, where the first sowing may have partially failed.

36. GREEN NORFOLK,\* GREEN ROUND OR COMMON GREEN TOP WHITE.—The Norfolk turnips are all of a peculiar flattish shape, rather hollowed towards their neck, as also on their under side, and when grown to a large size they become more or less of an irregular round or cornered shape.

The green top variety possesses these characters in a less degree than the next; and is generally of a pretty regular round shape, flattened, but not much hollowed on the upper and under surface; the former of which is of a green colour and the latter white. It is also harder than the next two.

37. WHITE NORFOLK OR WHITE ROUND.—This is the largest rooted variety of Norfolk, and at the same time softest and most irregular in shape. It is generally hollowed towards the neck, and being so, it is apt to be injured by retaining moisture, which renders it unfit for using except in the beginning of the winter season.

38. RED NORFOLK.—In size this sort is inferior to the last, but rather firmer in texture, and more regular in shape. It should also be used in the early part of the season, and is at once distinguished from all the other round flattened varieties by its bright reddish top, and from the red globe (No. 34) by its flat shape.

39. GREEN TANKARD.—Roots more than half above ground; oblong or tankard shaped; of a greenish colour, except on the under surface which is white.

The Tankards, like the Norfolks, are unsuitable for winter feeding, not so much on account of their softness as from their standing mostly above ground, and being thereby much exposed to frost. They are also generally earlier in arriving at maturity than the others.

40. WHITE TANKARD.—Roots longer, and in general larger, also softer in texture than those of the green tankard; often bent or crooked; leaves large and luxuriant; the earliest maturing of any, but will not stand the frost.

41. RED TANKARD.—In size, shape, and texture, this variety may be considered as occupying an intermediate place between the green and white tankard. It is of a bright red colour on the upper surface, and white on the under.

\*\*\*\* *White sorts more particularly suited for garden culture.*

42. WHITE DUTCH.—This is the most esteemed

\* Norfolk being the county into which the culture of field turnips was first introduced, the original and consequently unimproved sorts, when grown in other places, were known by the name of Norfolk turnips. This name is still retained and applied to a class of turnips which, as far as regards symmetry of shape, are to be considered inferior, and apparently only slightly improved from the first cultivated varieties. The name has no reference to the sorts at present cultivated in Norfolk, which are at least equal to those in any other district of Britain.

sort for early crops. It is juicy and of excellent quality when young, but soft, spongy, and inferior when full grown at which period it becomes of an irregular round and much flattened shape. Its culture in the field has been recommended when late sowing is necessary, but in such a case the autumn or six weeks (No. 35), and the tankards (Nos. 39, 40, and 41), are decidedly preferable.

43. **RED DUTCH or EARLY GARDEN RED.**—The roots of this are very similar in shape to those of the last variety, but differ in colour, being bright red above ground, and also in having smaller and darker coloured foliage. This is a very excellent variety, but little known in this country.

44. **WHITE GARDEN or EARLY STONE TURNIP.**—This is a common and well known garden turnip, of a rounder shape, firmer texture, with stronger foliage than the white Dutch, it is not, however, so well adapted for early spring sowing, being more apt run to seed, and has acquired the name of Early from the circumstance of its arriving soon at maturity when sown at a later period of the season. A carefully selected and improved variety of this is known in some parts of England by the name of Mouse-tail turnip.

45. **SMALL LONG WHITE, *Le Navet de Meaux blanc*, Fr.**—This variety differs from the small long yellow, which see (No. 27), in little except in colour.

46. **SMALL VERY LONG, or MALTESE LONG WHITE, *Le Navet de Clair Fontain*, Fr.**—This differs from the preceding in being generally partly above ground, which part is of a greenish colour; also much longer and tapering more gradually towards the point.

\*\*\*\* *Sorts not included in any of the preceding divisions.*

47. **ROUND BLACK TURNIP.**—Leaves small, few and smoothish; roots almost or altogether under ground, of an irregular roundish shape, often divided or terminating in thick branches at its lower extremity; skins very rough and of a black colour; flesh white.

This and the next three sorts have a hottish somewhat radish-like taste, for which they are esteemed and cultivated in some parts of the Continent.

48. **ROUND BROWN TURNIP.**—This differs from the last in little except in colour, which is dull brown or earthy-like.

49. **LONG BLACK TURNIP.**—This differs from the round black (No. 47) in little except the form of its root, which is of a long carrot shape, and also mostly under ground.

50. **LONG BROWN TURNIP.**—This variety bears the same relation to the round brown, as the last does to the round black turnip.

51. **SMALL BERLIN or TELTAU TURNIP.**—This is remarkable as being the smallest of all the turnips. It is of an oblong or carrot shape, about three inches in length, and at the thickest part seldom above an inch in diameter; of a dull transparent-like white, or very light lead colour, and is possessed of a peculiar slightly hot taste.

**EXTRAORDINARY RHUBARB.**—On Saturday last, we had a specimen of the giant rhubarb exhibited to us, grown by Mr. Joseph Marshall, of Rothwell Haigh, near this town, and supposed to be the largest ever seen in the Leeds market, and proved, when used, as tender as the ordinary sized rhubarb. The owner realised from twenty-seven roots no less than *thirty stones and a half*, some of the leaves of which, with the stem, measured about *eighteen feet*.

## FAILURE IN THE POTATOE CROP.

As to the failure of the potatoe crop, I dare scarcely give an opinion. When we take into view that the method of keeping the seed, of making the manure, and mode of planting, have all been conducted and managed nearly in the same manner for the last fifty years, and no failures have occurred worth mentioning till within the last three or four years, and unless it can be shown that the drought has been more severe in the early part of the last three or four seasons, than it has ever been any other year during the course of the last fifty, the drought alone being the reason, must go for nothing. To show the inexplicableness, last year I bought a few bolls of seed potatoes from a Strathaven dealer; they were planted on a piece of hard clay land; the whole came up, and produced as good a crop as could be expected. The same dealer informed me, that he had supplied other three farmers with a good many bolls each from the same pit, one of the three had a good crop, and no failures, the other two was nearly a total failure, and one whose seed failed had them planted on land admirably adapted for growing potatoes. So, of the four who got seed from the same pit, two had a good crop, and two had almost none. To talk of the manure being the cause is altogether futile, for what kind of manure was ever generally used for planting potatoes other than what is in use at the present time; and it can easily be shown that manure taken from the same dunghill, and from the same cart, part of the seed has failed, and part has grown.

It is true that potatoes have failed most upon heavy unpulverized clay soils; but it is also true that they have failed on the very finest of soils, even upon the baulks of Clyde they have failed, and that, I am told, to a considerable extent.

Near Hamilton, 30th June, 1836.

The more the potatoe crop is examined, the more it is found to be deficient in plant. There is a remarkable failure even on those pieces of ground let by farmers to villagers which are manured from their own store, and planted by the spade. In a great many instances the farmers have been obliged to re-plough them and sow turnips. It is pretty evident there will not be a third of an average crop.

In the upper ward of Renfrewshire, the failure of the potatoe sets has been more general this year than at any former period, and though no satisfactory reason has yet been discovered for their not standing the same free treatment as formerly, yet several subsidiary causes of failure are quite apparent. In all cases where the drills after being planted, were most exposed to drought, the failure has been most general, and where they were well protected from the sun, or where the ground was damp, then there has been little failure. The exposure of the ground to the sun, so as to dry it severely, appears likewise to have had great influence in destroying the sets. One farmer in the neighbourhood of Paisley, in planting a field of potatoes this year, had to drive his dung from a distance, so that some part of the dung in the same drills was laid on in the morning, and other parts in the afternoon, the whole having been covered up towards evening; and the result is, that in those parts where the dung was laid on in the morning and thoroughly drilled, the potatoes are nearly a total failure; where the dung was laid on at mid day or thereby, the failure is more partial; and where it was laid on in the afternoon and the drills closed up immediately after, the crop is excellent and no failure whatever. We have conversed with an intelligent farmer in the parish of Inchinnan, who suffered severely last year by the failure of his potatoe sets, and he assures us

that he found the same course of procedure, as we have just described, to have been attended with the same consequences; and having made these observations last year, he has been careful this season to avoid, as much as possible, the exposure of his potatoe sets, or dung to the sun's rays, and from this course, combined with a change of seed, he has an excellent braird of potatoe, without the failure of a single plant, whilst his neighbours in all directions are in a very different situation. The same gentleman has made repeated experiments of the setting of whole potatoe, of a smallish size, in places where there was risk to the seed, and these experiments he has always found successful, both in preserving the seed from rot, and in raising an excellent crop. In the district to which this notice refers, the wheat in early situations has been shot for the last eight days, and the hay cutting is expected to commence next week, with a crop greatly improved by the late seasonable rain.—*Glasgow Evening Post.*

As for potatoe in general, a deluge of rain, equal to the falls of the Niagara, accompanied with the heat of the Torrid Zone, we grieve to write it, would never resuscitate the rotten masses which lie buried in thousands of drills in this county. The state of this species of crop over a very large extent of Ayre-shire, is truly alarming—and our fears, we deeply regret to say, are too well founded, that potatoe will be potatoe when the time of raising the insignificant return of this year's planting comes round. For many miles round Ayre in various directions—towards Girvan, especially by the shore road—towards Kilmarnock, as far as that town—and towards many of the inland districts—the appearance of those fields planted in the ordinary manner, is indeed melancholy, both for the skilful and painstaking farmer, and that unfortunate portion of our population, who now chiefly depend upon the potatoe for their very existence. In some fields, of the very best land on several farms, you will observe a few patches or half drills, here and there, or along the head-rigs, while the great breadth of the carefully prepared area, looks no better than red land. In many instances, farmers have resorted to the expedient of planting fresh seed, but, in most cases, turnips have been substituted in lieu of the decayed potatoe. The lazybed system appears to have succeeded better than the drill, in those situations, both around the town and at a great distance from it, which we have had an opportunity of observing. The potatoe crop has proved equally defective in Ireland, and here a fresh source of uneasiness presents itself; for, with the countless throng of its destitute inhabitants, what can be done, when it is found that the crop has indeed failed; why, nothing remains, but to do as has been done before—provide for their pressing wants by means of a national subscription in England and Scotland. Fact first—in a farmer's field to the eastward of this town, a number of people have in the usual way set their own potatoe, each employing such sort of manure as he could obtain; some used horse or cow dung in a damp condition; others used ashes from coals in a dryish state: the potatoe planted on the damp dung, almost all rotted, while those planted on the dry ashes, almost uniformly sent up strong stems, and are now thriving admirably. Fact second—a respectable farmer whose farm is situated three or four miles south-west from town, planted his potatoe with two kinds of horse dung; the one kind he obtained from a dog kennel in his neighbourhood, and consisted of the contents of the intestines of the dead horses which had been employed in feeding the hounds for some months previous, and having been

thrown into an open space in the yard of the kennel, was as dry as newly milled oatmeal, when applied to the potatoe; the other sort which he used on the remaining portion of the same field, was taken from the dung-stead, on his own farm, and was fresh and sappy:—the seed planted on the dry manure from the kennel, vegetated regularly and produced a good crop, but that set on the strong moist dung from the farm steading, proved a total failure. The conclusion at which our informants in both the above cases have arrived is—that the potatoe plant has now become so weak, as to be unable to resist the strong stimulating qualities of manure when in a state of active fermentation, and therefore a dry light kind of dung ought to be used till the root regains its pristine vigour.—*Ayr Observer.*

The very general failure in the potatoe crop, in situations where no failure had in former years been experienced, with various descriptions of seed, and under different systems of cultivation, seems to fix, beyond a doubt, the cause of the deficiency in the degeneracy of the seed. Failure may with more propriety be said to be general than partial—half fields, on excellent land, where no failure had hitherto been experienced, having been re-sown with turnip. We have heard innumerable instances where the failures are of so singular and anomalous character, that, unless vouched by persons of unimpeachable veracity, and proved but too strongly by the evidence they have to exhibit, they would stagger belief.—*Ayr Advertiser.*

#### MR. HEATHCOAT'S STEAM PLOUGH.

The following are the remarks, by an able Correspondent, on Mr. Heathcoat's invention, to which allusion has already been made. We do not consider ourselves pledged to all his economical opinions; but they are well worthy of the attention of our readers.

“We have been favoured by Mr. Handley, M.P. for South Lincolnshire, with a brief, but highly-interesting account, of Mr. Heathcoat's invention for applying steam to bog-cultivation, drawn up on the part of himself and some other gentlemen who accompanied him to witness an exhibition of it. We insert it with the greatest pleasure, considering this invention as fraught with consequences of incalculable value to the British empire.

The practical application of steam power to agriculture opens an almost boundless field of fresh demand for human labour, and for the creation, as well as the employment of capital. The consequences of this invention can scarcely be foreseen, much less predicted. Franklin and Davy long since speculated on the probable use of steam and machinery for augmenting the productiveness of the soil, without perhaps imagining the early realisation of their speculations. The most immediate and important results of Mr. Heathcoat's invention will arise from its invaluable application to the culture of after the barren bog wastes of Ireland. A Commission has been issued to survey the extent of these wastes, and to ascertain their fitness to receive agricultural improvement, and become permanently productive soil. That they are almost all become reclaimable is a fact not only established by these reports, but confirmed by committee after committee of the House of Commons. The Irish poor law commissioners give a similar opinion; and whilst corroborating the state-

ment that there are five millions of acres of uncultivated land in Ireland, they announce the appalling fact that 'they cannot estimate the number of persons in Ireland out of work and in distress during thirty weeks of the year at less than 585,000, nor the number of persons dependent upon them at less than 1,800,000, making in the whole 2,385,000.' Emigration and the reclamation of the waste lands are two of the many remedial measures forcibly insisted on by the commissioners as requisite for the amelioration of the distress of the Irish poor. They say, 'there is not in Ireland the division of labour that exists in Great Britain; the body of the labouring class look to agricultural employment, and to it only, for support; the supply of agricultural labour is thus so considerable as greatly to exceed the demand for it; hence come small earnings and wide-spread misery.'

"Of these two propositions it is undeniable that emigration is an evil in itself; that to be of any effectual relief it must be attended with an immense sacrifice of money and strength of population; and that it ought to be resorted to, as a national measure, only after all other expedients have failed. Of the propriety of encouraging agricultural improvement, on the other hand, there can be but one opinion, and so far as relates to the reclamation of a great portion of the waste lands, viz. three millions of acres of bog, it seems that a cheap, efficient agent of power has at length been discovered, and proved to be applicable—a power, too, provided by the bogs themselves, which furnish the elements of steam in fuel and water.

"It would require more space and reflection than we can at this moment devote to the subject, to inquire how it can have happened that so large a portion as one-sixth of the area of Ireland should remain at the present time in a state of sterility. We know that many legislative enactments have been made to facilitate the reclamation of bogs. These have all notoriously failed, and the poor-law commissioners have proposed others, the efficacy of which for attaining the desired end are also questions of controversy.

The history of ancient as well as modern times teaches us a lesson by which we ought to profit; it shows that the best system of colonization is that of cultivating, of *colonizing* (if we may so term it) the wastes of our own country, before we expatriate our countrymen, in whose numbers and well-being we are further taught to believe the chief wealth of a nation consists. Without pausing to quote the practice of more ancient times, we will refer to the history of France, in which country, during the reign of Henry IV., it was declared by law that all waste lands capable of agricultural improvement ought, for the interest of the State, to be cultivated. It was then ordained by law, and since recognised in the *Code Napoleon*, that if any man would contract to reclaim a waste, or drain a marsh, he should be let into possession of it (unless the proprietors would themselves undertake the work), reserving to the owners an interest in the soil equal to its full value as waste or unreclaimed land. Into the details of this law we cannot now enter, but the justice of its great principle has never been called in question in France, and in practice it has worked undoubted benefit to the country. We are aware that some persons have contended that the national purse ought to be opened to effect in Ireland what individuals have hitherto refrained from undertaking; but we are no advocates for the application of public money to such purposes. It may have happened, so far as relates to the vast extent of the Irish bogs, that the difficulties

and consequent expenses of reclamation arising from the nature of the soil, and costly employment of horse power, have had an influence in deterring enterprising and monied men from investing capital in their cultivation. Mr. Heathcoat's invention has annihilated this obstacle. Let then Parliament facilitate its use by throwing the bogs open to public competition, unless the landlords will undertake the work. The starving Irish peasantry have a natural claim to be employed in cultivating land, which is not only useless to the owner, but injurious to the climate.

"'Instruct, employ—don't hang them,' says an intelligent writer on the state of the Irish poor: we will add, let us not expatriate them so long as an acre of waste land remains unappropriated and infertile; let us rather expend the capital which would be sacrificed in furthering emigration, in increasing the productive area of the island; a capital which would more than suffice for cultivating the three millions of acres of bog, and for locating starving and wandering masses of people. We should then find the 'wide-spread misery' cease, and the 'small earnings' rise into reasonable and sufficient wages. On the supposition that reclaimed bog would be worth only 15s per acre rent, the result would be the investment and the creation of capital to the amount of £50,000,000. The superabundant population of certain parts of the country would be drawn off to colonize the new regions. The evil of small 'holdings' of that miserable system of farming two or three acres, would be much abated, as many occupiers, miscalled in Ireland 'farmers,' would be rejoiced to remove and to occupy on the reclaimed bogs, thereby giving room to their neighbours to augment their own farms, and obtain a living which the present wretched system of such small holdings denies both to farmer and labourer. We anticipate from this extraordinary invention political consequences of great moment and immediate action. The application of Mr. Heathcoat's patent should be encouraged by the country without delay."

## ANIMAL PATHOLOGY,

BY MR. YOUATT.

### NEUROTOMY.

(From the *Veterinarian*.)

The division of the nerve, as a remedy for intense pain in any part of the frame, was known, or at least was hinted at, more than fifteen centuries ago: it does not, however, appear to have been systematically practised until the middle of the last century, and was then confined, or nearly so, to inflammation or disease of the sensitive nerves of the face. It was a remedy for *neuralgia*—pain in the nerve—from whatever cause it might arise, and generally bidding defiance to the power of medicine.

**SIMPLE DIVISION OF THE NERVE.**—The pain being clearly referrible to a particular spot, and not to be traced to any local inflammation or mechanical cause, an incision was made in the known direction of the nerve, and between the immediate seat of torture and the brain. The result of this was usually instantaneous relief, but too often of a temporary nature: the divided edges of the nerve again united, and with that re-union the communication between the diseased part and the brain was again established, and the former agony returned; or, in some instances, the pain was

translated to another place, generally a neighbouring, but occasionally a distant one.

**EXTIRPATION OF A PORTION OF THE NERVE.**—When that grand improvement on neurotomy, the extirpation of a portion of the nerve, took place, I am not sufficiently versed in medical literature to be able to tell you; but there is a very interesting account of the operation given in Majendie's *Journal of Physiology*. A French soldier was wounded in the leg in the battle of Wagram, in 1809. The ball was extracted, and the wound healed; but the man was subject to very extraordinary nervous paroxysms in the part, and convulsions, commencing from the cicatrix, spread over the whole body, and gave him the most dreadful pain. A surgeon who was consulted advised that the external popliteal nerve should not only be divided, but that a tolerably large portion of it should be cut out. Eighteen lines of the nerve were excised. The patient, to whom sleep had been almost a stranger, sunk into repose, and said, when he awoke, that a thorough revolution had taken place in him, and that he was no longer the same man. The spasms occasionally returned for awhile, but in another place, and with less intensity; the interval between them gradually increased: and, at length, they disappeared altogether. This is the first case of which I am aware of the excision of a portion of the trunk of a nerve in the human being for the relief of pain.

**MR. MOORCROFT STUDIES THE FOOT OF THE HORSE.**—There are records, however, of its earlier introduction in veterinary practice. Mr. Moorcroft, for awhile the colleague of Professor Coleman at the Royal Veterinary College after the death of St. Bel, was devoting his powerful energies to the discovery of the causes and cure of lameness in the fore foot of the horse. It was a subject worthy of him: it involved the interest of the proprietor, and the comfort of the slave. He found that, partly from the faulty construction of the shoe, but more from the premature and cruel exaction of labour, the horse was subject to a variety of diseases of the foot, all of them accompanied by a greater or less degree of pain, often of a very intense nature, and ceasing only with the life of the patient.

**CONTRACTION.**—He studied the nature, and cause, and consequences of contraction—usually the effect of other injury or disease; but when existing in a great degree increasing, if not perpetuating, all other mischief. He thought, however, that he was approaching towards some improvement in practice, for he was able to remove the contraction of the feet in many cases; and in all he could say, with tolerable certainty, whether he should succeed or fail.

**NAVICULAR DISEASE.**—He found a more formidable foe in what was then improperly called coffin-joint lameness. The coffin-joint, or that between the os pedis and lower pastern, was never primarily, and with very few exceptions not at all, involved. Mr. Sewell afterwards called it "joint-capsule lameness," a term still more objectionable from its being so indefinite. Mr. James Turner first gave it its proper name, "navicular joint disease," and likewise gave the first satisfactory explanation of its precise seat and character. It is inflammation of the synovial membrane, either of the flexor tendon or the navicular bone, or both, where the tendon plays over that bone; and it is accompanied by pain, abrasion, and gradual destruction of these parts. In his attempts

to remove or even alleviate this disease, Mr. Moorcroft was almost invariably foiled, although he adopted every mechanical contrivance which could be suggested, and every variety of temperature, and every soothing and stimulating application.

**TYING THE METACARPAL ARTERY.**—He then had recourse to the cutting off of the supply of blood. He imagined that he should thus lessen the degree of inflammation, and give a better chance to other means and appliances. First he tied one of the metacarpal arteries, but without alleviating the pain. He then—having a little while before tied both the carotids, and successfully, in another horse labouring under inflammation of the brain—passed ligatures round both the external and internal metacarpal arteries. In no instance, however, was the horse benefited; on the contrary, contraction of the foot seemed to be hastened thereby, and the lameness proportionably increased.

**DIVIDING THE NERVE OF THE LEG.**—He at length turned his thoughts to another way of subduing the increased sensibility of the part, viz. by diminishing the proportion of nerve naturally distributed on the foot. He laid bare, he does not say whether one of the metacarpal or the plantar nerves, and cut it with a pair of scissors. There was "immediate and decided lessening of lameness," and sometimes the horse rose perfectly sound; but this happy result was not always permanent; for the lameness returned after the lapse of a few weeks, and often after very slight exertion. It was supposed that the divided ends of the nerve had re-united; and therefore, in order to prevent this, about a quarter of an inch of the nerve was excised. The reproduction of nervous substance was not at that time dreamed of. If nervous influence was subsequently restored, it was supposed to be in some roundabout way, or a mere accidental affair, and not to be effected in the line from which a portion of nerve had been extracted. By this operation considerable relief was usually given; but the lameness was not quite removed in every case, and in too many it speedily returned.

**THE DIVISION OF BOTH THE NERVES.**—He now tried a bolder experiment. He determined to excise a portion of both the outer and inner metacarpal, and thus to destroy the whole sensibility of the foot. It was a noble experiment. He selected for this purpose a mare that had been operated on by the division of the nerve on one side with evident advantage, but who had relapsed. I will give you the history of this experiment in Mr. Moorcroft's own words. I make no apology for the length of the story. It is the history of the first case of complete neurotomy—excision of the nerve on both sides of the leg—that was ever performed. "The animal on rising, trotted boldly and without lameness, but now and then stumbled with the foot operated on. The wounds healed in a few days, and the patient was put to grass. Some weeks afterwards a favourable account was received of her soundness; but she was soon brought again to us, on account of a large sore on the bottom of the foot operated on, and extending from the point of the frog to the middle and back part of the pastern. The mare, in galloping over some broken glass bottles, had set her foot full upon a fragment of the bottom of one of them, and which had cut its way through the frog and tendon into the joint, and stuck fast in the joint for some seconds, while the animal continued its course, apparently regardless of injury. The



wound bled profusely, but the mare was not lame. Many days had elapsed before I saw her, and large masses of loose flesh were cut from the edges of the wound without the animal showing the slightest sign of suffering pain. The processes usually attending sores went on with the same appearances that took place in sores of parts not deprived of sensibility. Such extensive injury, however, had been done to the joint, as rendered the preservation of free motion in it very improbable, even were the opening to close, which was a matter of doubt, and therefore she was destroyed. It appeared clearly from this, that, *by the destruction of sensibility the repairing powers of the part were not injured*; but that the natural guard against injury being taken away by the division of both the nerves, an accident was rendered destructive, which, in the usual condition of the foot, might have been less injurious.

"I do not recollect the number of horses operated upon by me successfully after this, although it was somewhat considerable. Some of them were worked by myself; but the general impressions on my mind are that horses so operated upon, when they did not again become lame, were more apt to stumble with the limb operated upon than with the other, and that this mode of treatment is more likely to be usefully applied to carriage horses than to those intended for single harness or for the saddle."

**NEUROTOMY ABUSED AND GETTING INTO DISREPUTE.**—Soon after this, and before the beautiful operation of neurotomy had become sufficiently known and established in public estimation, and it had been ascertained in what particular states and diseases of the foot it would be beneficial or would aggravate the evil, Mr. Moorcroft departed for far distant climes. It had also unfortunately happened, that, without the slightest disparagement to his judgment, he had originally adopted it as a remedy for that disease of the foot in which there was not only the possibility but the probability of its hastening or producing a fatal result. It was impossible for any practitioner to determine, in a case of navicular disease, to what extent the cartilaginous or the ossific portion of the navicular bone might have been corroded, or the flexor tendon abraded—how soon in the *natural action* of the horse the one would be fractured or the other ruptured—and how far it would happen as a matter of certainty that, when the stress upon them and the concussion were so much increased by the altered action of the horse, the sensibility of the parts being destroyed, one or both must give way. This could not be ascertained, even in cases that were not of very long standing; and the operation was often performed by incautious persons when the lameness had been of considerable duration, and when it ought to have been supposed that the internal mischief was of a serious character. It consequently happened, that, while the horse generally rose relieved to a great degree, or apparently sound, there were annoying cases in which he almost immediately broke down and became useless for life.

**INCONSIDERATE OPERATIONS.**—Such an operation could not long be confined to one disease of the foot, but was hastily and at hap-hazard adopted for every kind of lameness. It was resorted to in partial ankylosis of the coffin or pastern joints; and with good effect, for the bold and, occasionally, violent action which was superinduced was calculated to give greater play to the joint. In cases of ringbone it would in the same way, and for the

same reason, be beneficial. In cases of contraction it would call into something like their natural action the beautiful mechanism of the foot to oppose or to obviate the narrowing of the heels. In cases of obscure disease, where there evidently was little inflammation, and no ulceration, it might have good effect. In chronic founder, its use might be questionable, yet if everything else had failed, the trial of neurotomy might be permitted; for the former inflammation might not again be set up, and the natural action of various parts of the foot might be restored. But when there is evident, and, perhaps, considerable inflammation—a state for which rest, and the absence of every internal and external stimulus, afford the only direct means of cure—in which there is nothing so prejudicial as the natural action of the limb—nothing so destructive as its early or violent use—when, by the very circumstance of relieving pain, the action of every part of the foot and the concussion and the pressure are almost beyond comparison increased—the operation of neurotomy must be certain destruction. The animal feels no pain, but the inflammation proceeds with increased rapidity, and is attended by consequences of the most fearful character. So if the feet had been previously bruised or ulcerated; or if there had been bad corn, or canker, or quitor, the inevitable destruction of the horse must follow the operation of neurotomy. In case of much ulceration or under-running, how much mischief will one day's hard work effect, even although the horse bears as lightly as he can on the painful part, and permits no concussion that he can possibly avoid! What would become of the pumiced foot if sensibility were withdrawn? With his present careful way of placing his feet, and all the protection that we can afford to the attenuated and projecting sole, we are in daily fear lest it should fail to support the weight that is thrown upon it. Alter the action of the horse, and let his foot come with that power and force to the ground, which the concave and healthy sole will hardly bear, and what will become of the pumiced foot?

Few lessons having been given upon these points, and little about them being generally understood, is it to be wondered at that this operation should have been abused—that instead of increased usefulness it should be followed by fearful inflammation, rapidly spreading ulceration, and loss of the hoof, and inevitable death?

**PREJUDICE AGAINST IT.**—In addition to these things, it had to encounter the prejudices of the ignorant, and the determined opposition of those who would allow no need of praise to any improvements that emanated not from themselves. The true theory of the nervous system was then altogether unknown. That the nutrition of every part depended on nervous influence was then as now believed; but no master mind had arranged this wondrous system according to the distinct and important functions which it exercises; and to destroy the nerve of the leg, was supposed, of necessity, to destroy the nutrition and life of the part. When the hoof occasionally dropped off, a plain and palpable proof was affirmed to be given of the folly of these would-be improvers. You may judge, gentlemen, what was then said of the absurdity of this new operation when you listen to the following remarks on it, proceeding—strangely proceeding—from a Professor in a foreign school. "Far from believing them unconcerned with nutrition, we think that the nerves composing the axillary and lumbar plexuses pre-

side equally over the sensibility, and the nutritive, and the secretory actions of the parts on which they terminate; and we ask, if the nutrition of the foot depends on the influence of any other nerves than the plantar, why should the division of these be followed by the loss of the hoof? \*” Stranger still is the language of a very superior writer of our own country, a man of humanity too. He is speaking of those who refuse to adopt, and he thinks unfairly and illiberally oppose certain notions and imagined discoveries of his: “and, what is worse, when the truth in clearest evidence lies before them, instead of embracing it joyfully, they have tried every way of stifling her, by wilful misrepresentations and abuse of those who had espoused her cause. And, next to these miserable courses, they have added a barbarity surpassing in refined cruelty even the unsoling or any other cruelty ever proposed by the old farriers, that of nerving the horse's legs when they were not relieved by their injudicious measures, and so destroyed the very fundamental properties of the foot, instead of pursuing the natural and most obvious means of prevention and relief from the evil. Seeing and deeply feeling the very great injury done to the animals as well as to the public and ourselves, we cannot on such an occasion but express warmly our natural and we believe just indignation at such conduct.†” I can only say of a passage like this, that, instead of being compelled to record it, I wish that I could blot it out for ever.

MR. SEWELL ADVOCATES THE CAUSE OF NEUROTOMY.—Well, gentlemen, this noble operation (which I have no hesitation in predicting will be practised and valued in proportion as veterinary science progresses, and interest and humanity, here inseparably combined, operate on the mind of the horse-owner) for awhile fell into disesteem and disuse. It could never have been lost to the world—but its triumph might have been delayed and impaired. It however fortunately happened that Mr. Sewell, very soon after his appointment as Assistant Professor at the Veterinary College, hesitated not to avail himself of every opportunity to put it to the test, and expressed his firm conviction of its value. He at once adopted the plan of *excision* of a portion of the nerve. He made a variety of experiments on the states and diseases of the foot in which it would be beneficial or in-

\* M. M. Dupuy and Prince, Journ. Prat. Oct. 1830.

I think that a very promising and talented young veterinarian will, upon consideration, a little modify the language which he adopted in the discussion on the nervous system on the 2d of last February. “Referring to the function of secretion as dependant upon the brain and nerves, he at once allowed of the closeness of the link; and in reply to the objection raised, that secretion goes on in the horse's foot after an excision of a portion of the nerves which lead to it, he stated that *there are yet filaments which have not been divided*; and even if these were, the bloodvessels are pervaded with nervous tissue *sufficient (!)* to carry on secretion.” Is the theory of the nervous system taught at the Royal Veterinary College so loose and unsatisfactory, that even one of the rising luminaries of our profession should thus express himself? He is to be forgiven when a veterinary professor uses the language quoted in the text—but such times ought to be passing away with us.

† Mr. Bracy Clark on the Foot of the Horse, p. 56.

jurious; and those in which its important effects would be best promoted, and the usefulness of the horse most effectually secured by *diminishing*, or for awhile *destroying*, the sensibility of the foot, or, in other words, by the operation below or above the fetlock; and, as being really and mainly instrumental in establishing the credit and high value of the operation, he deserves much commendation. If to Mr. Moorcroft it is to be yielded the first adoption of the practice, the praise of having rescued it from neglect and disgrace belongs to Mr. Sewell.

And now, regarding the operation of neurotomy as one of the most signal triumphs of our profession, and with full confidence anticipating the near approach of that period, when, if it is not extended to other diseases of the horse—and of this I do not quite despair—it will at least be made the means of alleviating the sufferings of other patients, I make no apology for this introductory history of it. We must, however, proceed to take a brief survey of the anatomy of the parts on which we are to operate.

(To be continued.)

ZOOLOGICAL SOCIETY. — At the monthly meeting held on Thursday afternoon, June 30, Viscount Gage in the chair, the usual reports were read. The following notes of a paper, lately read, on the economy of an insect destructive to turnips, by Mr. Yarell, are applicable at the present season. This time last year the yellow fly was seen upon the young turnips. It was remembered by some farmers that this was the fly which prevailed in 1818, and which was followed by the caterpillars known by the name of the blacks. The eggs being deposited by the perfect insect in the leaf of the plant, the black caterpillar, or turnip-pest, speedily makes its appearance, feeding on the soft portions of the leaves of the turnips, and leaving the fibres untouched; and, finally, casting its black skin, and assuming one of a more slaty or gray colour, it buries itself in the earth. Lodged there, it forms for itself from the soil, a strong oval cocoon; from which some of the earlier broods pass almost immediately into the perfect state, filled with *ova*, and ready quickly to supply another generation of destroyers. So complete and so rapid was the destruction in some instances last July, that a whole field was found, in two or three days, to present only an assemblage of skeletonized leaves; and this, too, when the turnips had attained a considerable size. The insect, whose proceedings have been thus briefly noticed, belongs to the *Hymenopterous* family *Tenthredinida*; it is the *Athalia centifolia*, a species first noticed by Panzer. By their repeated broods the devastation was continued for so long a time, that even the third sowing did not, in all cases, escape destruction: the turnip became pithy and of little value, and it was necessary to import the root largely from the Continent to supply the deficiency of the home crop. The remedial measures adopted on a former visitation were, the turning into the infested fields of a large number of ducks, who greedily devoured the caterpillars as they were brushed from the leaves by a boy with a long pole; the passing of a heavy roller over the ground at night, when the caterpillars were at their feed, and the strewing of quick lime by broad cast over the fields, renewing it as often as it was dispersed by the wind. The latter mode was generally considered as the most effectual preservative.

WOOL FAIRS.

CHELMSFORD WOOL FAIR.—JUNE 21.

It is impossible to describe the gratification expressed by the Wool Growers, at the success which attended the anniversary of the Wool Fair held in this town. The fair in 1835 was encouraging, but the buyers were not, on that occasion, sufficiently numerous to remove those doubts which were entertained of ultimate success.

The quantity of wool exhibited on this occasion surpassed all expectation. The Market-place in the Shire-Hall was completely filled, and a great deal which arrived at a later period of the day, necessarily remained upon the waggons, there not being sufficient room to pitch it. Owing to the present great demand for wool, the growers were anxiously on the look out for some new faces as buyers; and the movements of several strangers, who were observed to be minutely inspecting the fleeces before the commencement of business, brightened up the countenances of the producers, whose physiognomies, owing to the unpropitious state of the weather, appeared at first rather elongated. They were not disappointed, for a competition, previously unknown in this county, was excited by the attendance of some spirited London buyers, who, kindling a similar spirit among those dealers more locally known in the county, raised the price a penny, and in some instances, two-pence per pound. About 10,000 fleeces were in the market, and, we understand, were all sold, greatly to the satisfaction of the seller. The principal buyers on the present occasion were Messrs. Legg and Son, woolstaplers from Bermondsey, who proved themselves to be the real "Farmers' Friends." Those gentlemen are supposed to have purchased to the amount of about £5,000, and they will probably be entitled to the prize cup.

Messrs. Legg and Son continued their purchases the following morning, and visited Felix Hall, to inspect Lord Western's clip; they also visited various flock-masters in this neighbourhood for the like purpose.

The business did not conclude until the Wednesday evening, when we learnt that 7,940 fleeces had been weighed in the Market-house alone, and were purchased of thirty-two growers, chiefly by Messrs. Legg and Son, by whom they were sent off for town on three heavily-laden waggons. The above quantity is exclusive of what was purchased by Messrs. Johns, Unwin, Oram, and other gentlemen in the trade. Last year not more than 52 cwt was weighed in the Market-house; on the present occasion nearly five times that quantity passed through the scale.

STOCK.

The Prizes for Stock were (it will be seen below) well contested, and the sheep-shearing, which, owing to the rain, was witnessed under rather unfavorable circumstances, formed, as usual, an interesting part of the proceedings. We subjoin a statement of the prizes awarded, supplied from the books of the Secretary, to whom and to the acting Committee the public thanks are due for the judicious arrangements of the day.

SHEEP—(Shown in the Wool.)

	£.	s.	d.
DOWN RAMS.			
Mr. George Ellis, Hatfield Peverel, for the best Down ram . . . . .	2	2	0
E. G. Bernard, Esq., M.P., second-best ditto, a Down teg . . . . .	1	1	0
LONG-WOOL RAMS.			
Mr. Wm. Fisher Hobbs, Marks Hall, for the best, a tup, improved Leicester . . . . .	2	2	0

Mr. Henry Cleeve, Rettendon, second ditto, £ s. d.  
a long wool teg . . . . . 1 1 0

DOWN HOGGETTS.

E. G. Barnard, Esq., for the best pen of Down tegs . . . . . 2 2 0  
T. W. Bramston, Esq., for the second best ditto, Down hoggetts . . . . . 1 1 0

LONG WOOL HOGGETTS.

Mr. Henry Hobbs, Bocking, for the best pen of Four . . . . . 2 2 0  
Mr. Wm. F. Hobbs, Bocking, for the second ditto,—improved Leicesters . . . . . 1 1 0

WOOL.

T. W. Bramston, Esq., for the best fleece of Down wool . . . . . 1 1 0  
Mr. T. Crooks for the best ditto, of long wool . . . . . 1 1 0  
Shorn in the presence of the meeting; quality and weight the criterion.

SHEEP SHEARERS.

Wm. Neale, certificate signed by Mr. Crooks, as the best shearer . . . . . 1 1 0  
Richard Jarvis, ditto, ditto, as the second best, ditto . . . . . 0 10 6  
Samuel Carter, jun., ditto, by George Matson, third best, ditto . . . . . 0 5 0

The shearing of the lad Jarvis under twelve years of age, was highly commended by the judges, and at their recommendation a reward of 5s. was given to him as an encouragement.

THE DINNER.

At half-past three o'clock, about 120 gentlemen sat down to an excellent dinner, served up by Mr. Lake, at the Saracen's Head Inn. The Honourable J. J. Strutt, in the absence of Sir J. T. Tyrell, the President, presided, supported by J. Round, Esq., J. Disney, Esq., O. Hanbury, Esq., the Rev. G. Price, Captain Kortright, P. Honeywood,—Roche, C. Coynyns Parker, T. F. Wilson, Esqrs., and various other gentlemen of the county. Mr. Kemp officiated as Vice-President. The room was filled to an overflow.

CHIPPENHAM WOOL MARKET.

The first of the Chippenham Wool Markets was held on Friday, July 1, and was far more numerously attended, both by buyers and sellers, than could reasonably have been expected. The very large quantity of 205 bags of wool was exhibited for sale, and the greater part of it was readily sold. The average prices may be stated as follow:—Ewe from 40s to 42s; Regular Flocks, with a full proportion of Tegs, 43s to 46s; Whole Tegs from 43s to 49s per tod. One sample, under particular circumstances, obtained 50s; but the above are the correct average prices. In the afternoon, nearly 150 farmers, dealers, manufacturers, and others, partook of a most excellent dinner, provided by Mr. Lawes, in the Assembly-room, at a very moderate price. Mr. Neeld presided at one table, and Mr. Budd at another; and Mr. Little of Biddesden, and Mr. Salter of Malmesbury, officiated as Vice-Presidents. The arrangements altogether were excellent, and did great credit to Mr. Lawes. The very polite and affable conduct of Mr. Neeld commanded the esteem of all present. After the usual toasts,

The CHAIRMAN said he would next propose "Success to the Wool Trade, as connected with the N. N. W. of Wiltshire." He gave the toast in those words, because he thought the establishment of a wool market in Chippenham, would tend to the convenience and advantage of persons connected with the Wool Trade throughout that district. Before the toast was drank, however, he begged to congratulate the company on the successful results of this their first

meeting. Whether he looked to the quantity of wool exhibited,—to the number of respectable and influential dealers and growers in attendance,—to the sales effected, or prices given—he confessed his most sanguine expectations had been exceeded. This was no false meeting, got up by extra exertions. Every pack of wool exhibited in the market, had been brought there *spontaneously* by its owner. No solicitations had been made to dealers; but those gentlemen had voluntarily attended from different parts, and he would do them the justice to say had purchased freely and liberally; those who had sold too, derived, he believed, an inward satisfaction from their sales. It was all fair, he supposed, to grumble a little—it was in the nature of John Bull. One party *ought* to have a trifle more for the article he sold, and the other *ought* to have given a trifle less for that which he bought; but he had a strong suspicion that the dealer would not buy, unless he thought he could advantage himself by the purchase: nor would the holder sell, unless he was persuaded that he had the full market price. It was well known that there had existed a prejudice against the establishment of wool markets; but that prejudice, he was happy to say, had been overcome, and it was now universally acknowledged, that the holding of those markets at particular and stated periods, would be a general convenience:—to the owner it was assuredly desirable to know that by bringing his wool to a certain place, he was sure of finding a purchaser at the price of the day; and not less desirable he should imagine to the dealer, to know that by attending a certain place, he would meet with the article he wanted. Instead of any feeling of jealousy, he was highly gratified to find that the example of Chippenham had been followed: gratified, that their activity and exertions had in a measure roused their neighbours from their supineness. The greater the quantity of wool exhibited, the greater the tendency to bring together an increased number of factors. He would again congratulate them on that day's market—it might already be said to be established. His exertions, however, should not cease. If, in the progress of the market, further buildings should be required, further buildings should be erected; and if either buyers or sellers could throw out any suggestions for their convenience, he trusted they would make the Committee acquainted with them, and whatever the Committee recommended, he would most strenuously support.—Mr. Neeld then sat down, amidst the loudest applause, and the toast was drank with three times three.

Mr. BUDD having obtained permission to give a toast, said he was certain there was not an individual present, but would fill his glass to the brim, and drink the toast he was about to propose with enthusiasm. It was the health of their worthy chairman. [The applause which followed the announcement of this toast shook the room, and it was some time before Mr. Budd could proceed. As soon as silence was obtained, he continued]—it would require a far more able person than he was to do justice to the character of that gentleman. As a landlord, he sought every opportunity to mix with his tenants, and attend to their wants; he was indeed characterized by liberality, and afforded a bright example to other landlords. As a sincere friend and neighbour and as a true country gentleman, his munificence towards the town of Chippenham bore ample testimony. He was no less the friend of the manufacturing than the agricultural interest—it appeared to be the study of his life to unite all parties and all classes. Addressing himself to the company, Mr. Budd said, he had heard a great deal about agricul-

tural distress; but very few of them knew what distress was—they had never been cast on a lee-shore. They might during the last two or three years, have experienced a heavy gale, but in his opinion they had weathered the storm. With the vessel full rigged, the flag flying at the main, every man at his gun—(not like the ships in Portsmouth harbour, 100 less than the regular number, but with the full complement)—and having the excellent chairman for a commander, there was no difficulty but they might overcome. There must, however, be no flagging; every man must, if possible, redouble his energies, and attend to his duty; and then by pulling all one way—by liberality on the part of landlords towards their tenants; and by kindness on the part of tenants towards their labourers—Agriculture would again flourish. Mr. Budd passed a few more complimentary observations on Mr. Neeld, and the toast was indeed drank with enthusiasm.

In acknowledging the honor, Mr. NEELD said, although Mr. Budd had passed far higher compliments upon him, than he was entitled to, yet in one respect he had but done him justice, and that was when he said, that he (Mr. Neeld) was desirous of uniting all classes and all parties. He was, most desirous of effecting that object. When his attention was first directed to the market at Chippenham, he was governed by the simple desire to benefit the inhabitants. He afterwards saw that his sphere of usefulness might be extended; and from the successful results of the Cheese and Cattle Markets, he was of opinion that the establishment of a Wool Market, in the town, would benefit the whole of that part of the county; and the proceedings of the day confirmed him in that opinion. He was a great friend to agricultural meetings;—besides promoting a degree of sociability, they led to many useful purposes, and he intended to be present at them more frequently. In what he had done at Chippenham, he trusted he should not be misunderstood; he disclaimed all political feeling; he knew no man by his politics; he considered that every one in that room had assembled for a general good, with which politics had nothing to do.—Although he had his own political opinions he should never quarrel with any one for differing from him; he followed the dictates of his own conscience, and he hoped every person would do the same. As a man of honor, and accountable for every word he uttered, he declared that his sole object in interesting himself about the market at Chippenham, was the benefit of the town, of the neighbourhood, and of the public, without the slightest reference to politics. Mr. Neeld again thanked the company, and sat down amid repeated bursts of applause.

Mr. JOHN NEELD said, it was well known that all classes depended upon each other for support. The success of the Chippenham Wool Market, however, more particularly depended upon the attendance of the Manufacturers. He therefore begged to propose as a toast, the *Manufacturing Interest*, and with it he would identify the name of one of the influential manufacturers who had come some distance to be present at the first market—he meant Mr. Stancombe.—The toast was drank with applause.

Mr. STANCOMBE, after returning thanks, said, in the course of some observations, that the Manufacturers were in full work,—and in a very prosperous state. Indeed, without reference to politics, he would say, that Great Britain generally, was more healthy than she had been for many years past. In allusion to agricultural affairs, and speaking of the desirableness of cultivating a good feeling between landlord and tenant, Mr. Stancombe said, "Live and let Live" was his motto; and although he was but a small

landlord, he assured the company that a tenant of his had, in the course of a few years, made 3000 guineas from his estate. (*Cheers.*)

The CHAIRMAN then proposed the healths of the other Factors who had honored the market with their presence.—Messrs. Salter, Cunningham, Everett, Bailey, Ellen, &c.—drank with three times three.

Mr. SALTER returned thanks, and in allusion to the Market, said, he certainly did not expect to see so large a quantity of wool exhibited as had been that day. With regard to the samples, some certainly were very good, whilst others were indifferent. Then as to price, as far as he was concerned, he feared he had gone beyond the mark, and given too much. Hitherto he had been in the habit of going round to his friends' houses, buying their wool, and then taking pot-luck with them. Sometimes a couple of ducks were provided, and at other times a bit of lamb. Now as he was in future to be deprived of this good fare at his friends' houses, he thought they should sell their wool at Chippenham at such a moderate price as to enable him and his brother dealers to provide a bit of lamb or a couple of ducks at home. (*Laughter and cheers.*)

Mr. LITTLE proposed the health of Mr. John Neeld, the Member for Chricklade, on whom Mr. Little passed a high eulogium—(Drank with 3 times 3, and the one cheer more.)

Mr. JOHN NEELD returned his cordial thanks for the honor done him. Connected as he was with that part of the county, he felt more than ordinary interest in the success of the Chippenham Wool Market; as he did not for a moment conceive that its benefits would be confined to the town or its immediate neighbourhood; but that at each succeeding Market, its operations would be more extended, and be felt throughout the whole of the northern part of the county. He was gratified to see several of his agricultural constituents present; he trusted that they had derived some advantage by their attendance, which would be the means of inducing others to be present at the next market. No body of men could excel the British agriculturists—None more honest, more loyal, or more independent. True to their King—true to their country—most true to the Established Church—the British Agriculturists were the men he wished to have the honour of representing in the House of Commons. (*Loud cheering.*)

Mr. RAY (a gentleman of the legal profession from Gloucestershire) begged to be allowed to give a toast. He had no connection, he said, with Wool, or the Wool Trade; and he believed he was unknown to all present, although he had frequently rode over the grounds of some of the company. He had seen the advertisement in which it was stated that Mr. Neeld would preside at the ordinary on the opening of the Chippenham Market; and he was so much pleased with the idea of a great and rich landlord going out of his way to mix with his tenants and other farmers, that he came from Gloucester purposely to shew his respect for him. It would be well done for country, if the noble example set by Mr. Neeld, was followed by other landlords. The toast, however, he was about to propose was the Duke of Beaufort and his fox-hounds. [The manner in which this toast was drunk, at once shewed the esteem of the company for the noble Duke, and their love of fox-hunting.]

The health of Mr. Little was drunk with three times three distinct rounds of applause; and Mr. Little, in a very appropriate speech, acknowledged the compliment.

Other toasts were drunk, and the evening was passed in the most social and convivial manner.

## PERTH WOOL FAIR.

The fears which were at one time entertained that this newly established Fair would not be sufficiently supported to be maintained as a leading market for the purchase and sale of the wool produce of the central Highlands and Counties of Scotland, must have been entirely removed by the result of the meeting on Tuesday the 12th July. On this occasion there was an improved attendance of both buyers and sellers—the former consisting of some of the leading wool staplers of York and Leicestershires, and the woolen manufacturers of Kilmarnock, Bannockburn, and the adjoining counties to the south and west; and the latter included the sheep farmers of the Perthshire Highlands, and the principal stock growers from Strathmore, Strathearn, and the adjoining districts of the neighbouring counties. The stockholders attended to the suggestions made them last year by the English buyers in bringing sufficient samples of their wool, and the average quality was highly spoken of, particularly of the Leicester. Mr. Clarke from that county acknowledging that the samples shown fully equalled any he had ever purchased in England. The result of these two markets would seem to show that the produce of the finer wools from the low country, and of the native sorts from the Highland districts, offered at this meeting, will always be sufficiently great to command a large attendance of the principal dealers; and that this channel of communication between the growers in the adjoining counties and the south country staplers will be the more resorted to, as its advantages are experienced.

The first business of the day was the determination of the Premiums offered by the Highland Society of Scotland, for the best descriptions of wool grown in the district. The fleeces were exhibited in the Council Room, and a number of competitors appeared for each class. The Judges appointed by the Deputation of the Highland Society were, Mr. Clarke, woolstapler, Leicester; Mr. Wilson, manufacturer, Bannockburn; and Mr. Gibson, from Messrs. Peace's House, Yorkshire. All these gentlemen expressed themselves in high terms of the quality of the various sorts exhibited; and the object of the Society in offering the Premiums was well answered, not only in the quality exposed, but in the extent of country from which the competitors appeared—a very considerable proportion of the largest holders being from Forfar and Kincardineshires, to the very head of Strathmore.

The premiums were adjudged as follow:

For the best seven fleeces of Combing Wool, Capt. Hunter of Auchterarder.

For the best seven fleeces of Short Wool, of the Cheviot Breed, Mr. Jn. Welsh, Glencleck, Brechin.

For the best seven fleeces of Wool, of the Black-faced Breed, Mr. John Bennet, Perth.

During the forenoon, little business was effected, as is usual on such occasions. The short supply in the manufacturers' hands, and the deficiency in this year's clip, amounting to nearly one-fourth, encouraged the holders to stand out for a considerable advance; and although the staplers offered in the first instance fully 3s a-stone above the prices of last year, the holders would not come to terms. After dinner, however, parties came to a better understanding. The finer wools were first disposed of. Pure Leicester, entire hog, of first quality, brought 42s; half hog, ditto, 37s to 40s; some inferior, the produce of crosses between the Leicester, Black-faced, and Cheviot, from 30s to 35s all per stone of 24 Imperial lbs. In the Black-faced Wool, which formed the staple of the Highland sheep farmers, some very extensive sales were made; those which regulated the prices were two of nearly 10,000 fleeces each, which were disposed of at 28s the double stone; in some cases, with a reference of 1s extra, in case the result of the Inverness market should be higher than the Perth. Some parcels of White Highland Laid Washed brought 18s the single stone. Prices of Highland Wool, on the whole, may be stated at an advance of fully 4s a double stone above those of last year.

Although at the above rates some very extensive sales were made, a number of farmers, who had long been

accustomed to sell with reference to the London market, hung back in expectation of a greater rise there, and which there is every probability will be realized. Accounts of the firm appearance of the market here were dispatched north by express that night, and as these would precede the south country dealers, there is every reason to believe the advance here will be fully maintained. The stock holders are all in great spirits, as the present prices will remunerate for the loss by the severity of the last spring. About 150 gentlemen sat down to an excellent dinner in the Salutation Hall at 3 o'clock. John Richardson, Esq. of Pitfour, was in the chair. The Lord Provost, Mr. Watson of Keillour, and Bailie Keay, were occupiers. On the right of the chair there were John Hay, Esq. of Letham, John Millar, Esq. of Balumbie, Patrick Kinnear, Esq. of Lochton, Jas. Miln, Esq. of Woodhill; and on the left, Captain Hunter, Mr. Clark, woolstapler, from Leicester, &c. &c.

### IPSWICH WOOL FAIR.

On Tuesday July 19, the above fair was held in the Assembly Room, in this town. The attendance, though far from numerous, did not impede the progress of business, there being a briskness in the demand, which shewed a very great improvement over the last year. The right hon. the Earl of Stradbroke filled the chair, and was supported by R. N. Shawe, Esq.; J. Moseley, Esq.; Joshua Rodwell, Esq.; Fuller, Esq.; and W. Rodwell, Esq., of Ipswich. Among the buyers were—Messrs. J. Burch, Tuddenham; Revans, Yoxford; Churchyard, Halifax; Pymar, Norwich; Etheridge; Roberts, Yoxford; Candler; Blake, Norwich; Buck, Beccles; and others. Among the growers were—H. Edwards, Esq.; Sutton; F. Hale, Esq.; Mr. Barthropp, Mr. Collett, Mr. W. Wasp, Mr. T. Crisp, Mr. J. Codd, G. Bates, Esq., Mr. Phear, Mr. G. Sargent, Mr. J. Churchyard, Mr. Gebbett, Mr. Diggins, Mr. Dewing, and Mr. Freeman.

The noble chairman, immediately on the removal of the cloth, gave the usual loyal toasts.

The CHAIRMAN opened the business of the meeting, by referring to the cordiality which existed between both the buyers and the sellers of wool, and the improved prospects of the market. In the course of the evening the meeting would probably have an opportunity of hearing some remarks relative to the breed of sheep, and the establishment of a woollen yarn manufactory. The question would also be submitted, whether it would not be expedient, to give rewards to such shepherds as deserved them, at future meetings. As regarded the selling of his own wool, Mr. Revans had bought on other previous occasions, though not last year, and he hoped that he would become a purchaser this year. He should puff his wool a little. It was not so good as that of Mr. Arcedeckne, but still it was equal in quality to most flocks. He offered the hogget wool at 56s and the ewe at 43s per tod. (*Cheers.*)

Mr. REVANS said that it was with great satisfaction that he could advert to the active and steady state of the market. The only way to keep them in that condition was by the grower offering his material to the buyer on such terms as would induce him to buy. If offered at high prices, it created an undue depression. That, however would not be the case there to-day and he congratulated the meeting upon it. As regarded the offer of the noble chairman, he was quite ready to admit the high quality of his flock. He considered the price which he had put upon his hoggets too high. He should be happy to take his wool at 42s for the flock, and 55s for the hogget.

The CHAIRMAN observed, that after the remarks made by Mr. Revans, and to promote the sale of all

other gentlemen in the room, he would accept his offer.

Toast, "Prosperity to the Suffolk Wool Fair."

J. MOSELEY, Esq., said that Mr. Revans, having very frequently purchased the wool he had for sale, he should offer it him again this year. It had been observed that Mr. Arcedeckne's wool was said to be the best, but, as it was said, that after dinner a man's courage rose, and in proportion his modesty declined, he would not say much about that in reference to his own. He offered the flock at 45s per tod, and the hogget at 56s per tod.

Mr. REVANS observed, that he had hoped there would have been no obstacles to the progress of business. He thought that Mr. Moseley's wool was very good, but not so good as to fairly demand the price he had put on it. There was only a single instance at the Thetford wool fair, that of Mr. Coke's where 45s was obtained for flock wool. That wool was considered to be the best in the county of Norfolk, yet it was considered that that price was three shillings per tod more than ought to have been given.

Mr. MOSELEY said, that as it regarded Mr. Coke's flock, he (Mr. Moseley) had lived twenty-three years in Norfolk, and he therefore knew what the quality of that flock was. He had offered a wager of fifty guineas that his own was as good. He never had considered that Mr. Coke's wool was the best in Norfolk. There were other wools besides those of that gentleman which sold for 45s.

After some conversation, Mr. MOSELEY said, that he thought it would make Mr. Revans a better customer to him, if he lost his wools for a year. (*A laugh.*)

Mr. REVANS hoped in that case Mr. Moseley would keep it.

Mr. MOSELEY again observed that there could only be a difference of one shilling per tod between them, and perhaps Mr. Revans would consider the proposition.

A conversation here took place on the relative superiority of different breeds of sheep, as connected with the produce of wool.

Mr. REVANS thought the pure Sussex as good as the cross by the Hampshire.

Mr. MOSELEY enquired if Mr. Revans did not recommend the cross.

Mr. REVANS observed that he thought the cross did not add to the value of the fleece.

Mr. MOSELEY said that he could obtain more money from the cross.

Mr. REVANS observed that that related to the buyers. He considered that the pure Sussex was as good as the cross with the Hampshire.

Mr. MOSELEY did not think so. He thought the quantity of chalk in the soil of Sussex got into the fleece of the animal, and rendered it hard. The soil of Norfolk being softer, so were the fleeces of the flocks, and they would therefore obtain better prices. In answer to other questions put by Mr. Moseley to Mr. Revans, that gentleman observed that he had no particular knowledge of the Sussex breed—he only spoke relatively, as it were between the Sussex and the Hampshire cross.

R. N. SHAWE, Esq. said that he should offer his wool to Mr. J. Burch, (Tuddenham.) As his friend Mr. Moseley did not puff his goods, why he should. His flock had been Norfolk, and now it was part half-bred and South-down. Part of his flock had come from Mr. Arcedeckne, though he must say that he wished that he had stuck to the Norfolk. He should offer to Mr. Burch at 42s for the flock, and

52s for hoggett. The hoggetts were Down and Norfolk.

Mr. Burch observed, that as Mr. Shawe had puffed his wool, he should add another puff, and puff all the Norfolk away. He accepted Mr. Shawe's offer, but hoped that he would do without the Norfolk on future occasions.

Toast, "The Members for the County."

The CHAIRMAN said, that there was a gentleman in the company, who as he was not generally known to this part of the country, he should be glad to introduce to their notice, for many reasons. If he had not sold his wool, or should wish to offer it, the present was the time to do business. The gentleman to whom he alluded was Mr. Amos, of Rickenhall, he knew that his flocks were of the first character.

Mr. AMOS said, that he felt great pleasure in attending the meeting, not only on account of business, but because he found friends both on the right and left. He attended the fair at Thetford but did not sell; his wool was therefore to dispose of, and he would offer it to Mr. Pymar. He would offer it that gentleman at 56s for hoggetts, and 45s for flock. He well knew the quality of his wool, and he trusted that there would therefore, be no difference between them as to price. There was an advantage between the prices of that day and those of Thetford Fair. If, however, he had intended to have taken that advantage to himself, he should have asked a higher one. (*A laugh.*)

Mr. PYMAR said, that he would give 44s and 56s.

Mr. AMOS observed, that Mr. Pymar had on past occasions, testified that his wool was as good as any in Norfolk. He had introduced Mr. Pymar as an independent buyer, and he had bought his wool last year and paid for it, and he hoped he would become a purchaser this year also. He trusted also that he would give him the price obtained by Mr. Coke at Thetford, for his flock was quite as good. He begged to inform the meeting, that he had a number of famous tupps to let, and he should be happy of having an opportunity of showing his sheep. He did not expect to obtain a premium for them, but he meant that he should be glad to offer them to the notice of any gentleman.

Mr. PYMAR accepted Mr. Amos's price of 45s for flock, and 56s for hoggetts.

Mr. MOSELEY said, now that Mr. Amos had obtained his price, he thought that he was at liberty to ask the decision of Mr. Revans.

Mr. REVANS declined.

Mr. MOSELEY offered his wool at 56s for hoggetts, and 45s for flock.

Mr. REVANS still declined.

Toast—"The Bishop and Clergy of the Diocese."

JOSHUA RODWELL, Esq., observed that in offering wool for sale that day, they were doing so under the advantage of knowing the prices which had been obtained at Thetford Fair. They had held that if this meeting were appointed to take place after the fair at Thetford, that it would be of great advantage in facilitating the course of business. He thought that it had been found so. He would offer his wool to Mr. J. Burch; that gentleman had seen it, and he knew it to be clean. He would offer it at 44s for flock, and 55s for hogget. He would not puff his wool.

Mr. BURCH said that he was obliged to Mr. Rodwell for advertising to the prices at Thetford. He thought that there they were 42s for flock, and 54s for hoggetts. Mr. Rodwell had said that he had not puffed his wool—(*Mr. Rodwell: Yes*)—then a puff was necessary—to puff the sand out of it. He thought that if gentlemen would get their wool washed twice, they would find a considerable advantage accrue to

them. The county of Suffolk was evidently improving in the quality of its wool. He had collected upwards of 23,000 fleeces this year, and he thought that they were better than he had seen them before. He thought that the Suffolk wool was as good as the Norfolk. As regarded the breed of sheep, he surmised that the Hampshire cross was perhaps better than any other, but still he did not think that it exceeded the pure Sussex. If Mr. Rodwell would come to the level of the times, he should have no objection to treat with him. (*A laugh.*) The buyers were ready to meet the sellers in a spirit of justice. He was a buyer at Norfolk, and he should be glad to purchase at Ipswich also.

Mr. MOSELEY observed in reference to the sand getting into the fleece, that he had seen 3 lbs. weight of sand beaten out of fleeces, on the hurdle. He had endeavoured to discern how it was that the sand got so deeply into the wool, and he thought it must be by the animal rubbing itself against the sides of sand pits, and the sand crumbling into its fleece. He thought that although there was half a pound allowed in the weight of the tod in Norfolk, that the advantage was destroyed by the buyer getting that weight in sand, and not wool. Respecting the double washing of the fleece, he should be glad to know from any gentleman the proper time that it could be done with advantage. He had tried the plan at various times, but he did not know if he had done it at the best possible juncture.

Mr. AMOS, in reference to the mode of weighing in Norfolk, observed that the clean tod was weighed, and then an allowance was made of half a pound.

Mr. BURCH said, that Mr. Amos was quite correct; for every tod, the weight of half a pound was given to the buyer.

Toast—Prosperity to Agriculture.

The CHAIRMAN observed that if an end had been made to the bargains, he should be glad to hear Mr. Chapman offer Sir W. Middleton's wool, if he had any to dispose of.

Mr. CHAPMAN (Steward to Sir W. Middleton) said, that he would offer at 44s per tod for flock, and 56s for hoggetts, and he hoped to obtain that price, for it was a fair one. Sir W. Middleton had written to him desiring him to sell at a fair price, else he (Mr. Chapman) should have stated a higher sum. (*Much laughter.*)

Mr. BURCH said, that he had seen the wool, and the flock of Sir W. Middleton was, he was glad to say, much improved. As the noble chairman had set the meeting a good example, he hoped that Mr. Chapman would follow it, and take 55s for the hogget, and 43s for the flock.

Mr. CHAPMAN: I cannot take it.

Mr. BURCH said, that Mr. Coke's flock was considered the best in England, and that fetched 43s and 56s. He considered Mr. Chapman's flock improved, and as he had shown a disposition to do what was fair, and enter into the spirit of the meeting, (*A laugh.*) he would give 43s for the flock, and 56s for the hogget.

Mr. CHAPMAN said, if Mr. Burch would give the price for the hogget, that he should have the flock at his own price.—The bargain was not concluded.

Mr. REVANS said that he would make Mr. Moseley an offer for his wool which he thought he could not refuse. He would give 43s for the flock and 56s for the hogget, but that price was purely to promote the good spirit of the meeting.

Mr. MOSELEY said, that he could not go below 44s and 56s.

Mr. REVANS objected. In offering 43s per tod for

the flock, he did so in order to promote the disposition of the day.

Mr. MOSELEY still refused.

Mr. REVANS said that the price was still 1s per tod too high.

The CHAIRMAN proposed the health of Mr. Revans, and the other buyers in the room.

Mr. BURCH, addressing Mr. Chapman, said, that if he would make him the same allowance as others on the weight of the wool, he would take the wool he had to sell.

Mr. CHAPMAN said, that he would allow Mr. Burch half-a-pound on each tod, at 4s for flock and 5s for hogget.

Mr. REVANS briefly returned thanks for the honour of proposing his health. He had always endeavoured to promote the interest of the Meeting.

The CHAIRMAN said that Mr. Blake of Norwich, who was present, would address the meeting relative to the Norwich Yarn Company.

Mr. BLAKE then rose and observed that the Norwich Yarn Company now employed 700 hands in the manufacture of yarn, at good wages, and that such was the prosperity of the trade that it was their intention to enlarge their establishment. The existence of a market for the purchase of wool was of the greatest importance to the wool growers—a market that would take off the wool from the hands of the farmer without the intervention of the agent. There was another important consideration in the establishment of a new manufactory of this kind—that it would employ the surplus labour. How far it may be considered of advantage to establish a manufactory of this kind in Ipswich it was not for him to speak; the county of Suffolk was once famous for the spinning and culture of hemp, and as far as his own opinion went, he thought it would be found more profitable to spin hemp and flax than worsted. He hoped that attention would be turned to the spinning of hemp and not worsted, as it was a legitimate employment of Suffolk. Norfolk was the consumer of Woollen Yarn, and it would be of great advantage to the growers of wool, that they should have a market for their produce. He felt proud for the introduction he had received into the county of Suffolk, and he should feel happy to shew what they were doing in Norwich, to any gentleman who paid a visit to that city. At present the company had only two looms at work, but their business was increasing so rapidly that they were obtaining more power with all possible expedition. The manufacture was important to this part of the country, as it would be the means of employing the population. He was glad to say that in the North the people were all employed. If a manufactory similar to the Norwich Yarn Company were established in Ipswich, he should be glad to render it any assistance that was in his power.

Mr. MOSELEY said, in reference to the manufacture of hemp in the county of Suffolk, that it did prevail to a considerable extent, but the Russian hemp being thought of better quality, the duty had shut out Suffolk from the trade. That manufactories would permanently benefit the condition of the poor he could not subscribe to. True it was that they found employment in the manufacturing districts, but when from any cause the prosperity declined, they came back and became a burden to their parishes. This had been the case with many towns in Suffolk, where manufactories had once been established and had now left them, and he quoted Hadleigh and Glemsford as examples. Manufactories were certainly increased, but if produce got higher in price, what would be the consequence? As the establishment of Joint Stock Banks extended themselves, he thought that prices

would rise, and if so, they could not compete with foreigners.—Mr Moseley enquired what description of wool was preferable to the purpose of yarn spinning?

Mr. BLAKE said the half-bred down and Leicester hogget—but they could use all descriptions of wool which would comb well.

W. RODWELL, Esq., observed, that with regard to what had been said relative to the incumbrance of parishes, after a species of manufacture had declined in the town or neighbourhood, that he thought the evil had arisen under the bad system of the old law of settlement. Under the new regulations he thought it never could occur. He would just mention in passing, though not in reference to any remark that fell from Mr. Moseley, that he knew of no man who could complain of any banker in this part of the country not being liberal in his business. As to the establishment of a Yarn Company in Ipswich, he hoped that he should not be thought inopportune if he offered a new company of that description to the notice of the meeting, to be established in that town. Although that species of manufacture was flourishing to a great extent in Norwich, yet he thought if a manufactory of that nature took root in Ipswich, it would prosper beyond any in that part of the county. There were various advantages possessed by Ipswich which Norwich did not possess. The former town possessed a facility of navigation to the sea which the other did not. As regarded the present capability of Norwich to consume the wool of the county, he would observe that if railroads were established, Ipswich would be able to supply that city with yarn. If his yarn was not too long he would state some particulars respecting the proposed company. Mr. Rodwell then went on to observe, that it was intended the company should be established in shares of 100l each. Its objects were to produce a home market for wool, and a safe and profitable investment of capital. There were at present a great number of hands employed in Ipswich in the manufacture of stays, but such was the lowness of remuneration, that they could not earn more than four shillings per week each. The establishment of the Ipswich Yarn Company would create a large market for labour in the town, and absorb superabundant labour. He thought that the remark made with reference to those places in the county which had once been the seat of manufactures, did not exactly apply. Hadleigh, he knew from his own knowledge, possessed larger eleemosynary endowments than any other place in the county, and that in order to take advantage of the funds arising from them, a great number of false settlements were made by the paupers. That was under the old system. He could say that the expenses of maintaining the poor in that parish, though not an incorporated one, was reduced in the ratio of from 18,000l to below 12,000l. The rates had fallen from 14s on the acre of land, to 7s, and were in progress of reduction beyond that. In a short time it might be hoped that the produce of the charities would alone be sufficient to support the poor, without a charge upon the land. With respect to Lavenham he could say, and he hoped he should be contradicted if not correct in his statement, that the land, from a state bordering on no value whatever, was now of very considerable value, and was selling high. He believed that the present system of jurisprudence would remove the entire evils of the poor laws, and prevent their recurrence.

Mr. MOSELEY observed, that there were many circumstances to be taken into consideration relative to the amount of relief obtained through the new Poor Laws, and one was the present low price of corn. There were also many expenses paid out of the old



rate which were rejected in the new, though still forming a portion of the parochial charges.

Mr. RODWELL observed, that it was not certainly for him to enter into a discussion on the matter. Respecting the portion not allowed, as mentioned by Mr. Moseley, the amount could not belong to the poor rate.

R. N. SHAWE, Esq., gave the health of the chairman, the Earl of Stradbroke. It was not necessary that he should say anything in favour of their noble president. He had long been known to them, and was the staunch friend of agriculture. The toast was drank with three times three, and one cheer more.

The Earl of STRADBROKE returned thanks. He observed, that he was at all times ready to render his assistance in promoting the general good of the country. Nothing afforded him greater satisfaction than being employed for the advantage of these around him. In return, he begged to drink the health of all present.

R. N. SHAWE, Esq., said, that as Mr. J. Rodwell was the only person who he believed had not sold his wool, he asked, and he wished to know if it were not possible to bring him and Mr. Burch together in their bargain.

Mr. BURCH said, that it was no fault of his. If Mr. J. Rodwell would set his wool at times' price, he would be glad to meet him.

Mr. J. RODWELL said, that his flock was very good. Mr. BURCH said, that it might be better; the wool was weak.

Mr. J. RODWELL asked what price Mr. Burch offered?

Mr. BURCH said, that the times' price was 40s a tod for the ewes, but to promote the harmony of the meeting, he would give 41s, and he would not take the allowance of  $\frac{1}{2}$ -lb per tod.

Mr. RODWELL.—Can't you give another shilling?

Mr. BURCH.—Why the chairman sold at 42s, and his was very clean. Your's is not dirty, but I hope it will be better next year.

Mr. MOSELEY observed, that having talked about sand getting into the wool, he feared that he had prejudiced the sale of Mr. Rodwell's wool. He should be happy if he could go between him and Mr. Burch, and adjust the difference.

We understood that the bargain was eventually concluded between Mr. Rodwell and Mr. Burch.

The question was not put with regard to the convenience of the time of meeting, but from the activity which appeared to pervade the fair, it was supposed, that being held a week after the Thetford Wool Fair was in entire accordance with the wishes both of buyers and sellers.

The chairman after the last toast, immediately left the chair, and the meeting separated.

## THETFORD WOOL FAIR,

FRIDAY, JULY 15,

Was attended by a large body of the gentlemen and agriculturists of this and the adjoining counties. The veteran Founder and President of the Fair, Mr. COKE, paid his never failing visit, and appeared in excellent health and spirits. A large marquee was erected on the paddock of Mr. Gill, where a table was spread for 250 persons. Mr. Coke presided, and was supported by the High Sheriff, (A. Hammond, Esq.) Sir Wm. Folkes, M. P., Sir C. M. Clarke, E. R. Pratt, Esq., H. S. Part-ridge, Esq., Wyrley Birch, Esq., and Captain Fitzroy, and amongst those present were Messrs. Abbott, Blyth, Beck, Blomfield, Cooper, Cobon,

Culley, Ellman (Sussex), Freeman, Garwood, Hudson, Hastings, Kendle, Layton, Milnes, Overman, Reeve, Read, Swan, Adams, Bryant, Bidwell, Cooper, Chambers, Denton, Dobito, Edwards, Fyson, Garnham, Kersey, King, Lugar, Lanchester, Muskett, Phillips, Payne, Reed, Stedman, Simpson, Tubbs, Wigson, Webb, and other principal flock-masters of Norfolk, Suffolk, and Cambridgeshire; and as buyers, Messrs. Waller, Fison, Gardiner, Baldry (Halifax), Martin, (Bradford), Moyse, Mumford, Head, Revans, Sheppard, Pymar, Burch, Scott, Drage, Jeffrey, Tetley, Sherringham, Churchyard, Turner, and Blake, and Lord for the Norwich Yarn Company.

After the usual toasts were given,

The CHAIRMAN expressed his satisfaction at seeing so numerous and respectable a meeting, exceeding any previous one since the establishment of the fair. He would now offer his wool to Mr. Waller, who had so frequently bought it. From the attention which he had paid to his flock, he flattered himself that for uniformity of staple and goodness of quality it was equal to any in the county, and he was inclined to think that he was entitled to the best prices. He was sorry still to see so many inferior flocks in the county of Norfolk; he believed that the improvement of which many were capable would be sufficient to pay the rent of the owner. With respect to his own flock he believed that the Hampshire cross had put a good deal of money into his pocket, and if Mr. Ellman would try it, he thought he would be of his opinion. He should ask what some might think a high price for his wool; for the Hogget he should ask no more than last year, but for the Ewe he should ask considerably more. He did not think the pure Down so valuable as the Hampshire cross, and should therefore ask 3s more than he thought the Southdown was likely to sell for. He should offer his Hogget wool to Mr. Waller at 56s, and his Ewe and Wether at 45s.

Mr. WALLER said undoubtedly Mr. Coke had laid 3s more on his Ewe wool than he could have expected; but the manner in which it was taken care of, and the cross of the breed, made it far better than the clothing wools of the pure Down. Clothing wools were not so much in demand as this on account of the great quantity of combing wool that it would yield. Mr. Coke was at least 3s out of the way as to the Ewe wool, but as he had kept the price of the Hogget very steady, and as he could get more combing wool out of it, though not of equal fineness, he would accede to his terms.

The CHAIRMAN then gave the health of a gentleman of Thetford whom every one respected—his worthy friend Mr. Fison.

Mr. FISON returned thanks, and congratulated the company on the numerous attendance and the auspicious circumstances under which they met, especially considering that these were the gloomy days of agricultural distress. They must at least be good days for the wool trade to produce so many cheerful faces. The disposition of the buyers to do business must be met by a corresponding spirit in the sellers. In the state of trade there was every congratulation; but it might be clouded by an advance for the raw material. He was convinced that the prosperity of our manufactures depended upon a reasonable price being maintained for the raw material. Last spring the price rose too high and the consequence was that it went back immediately; there were so many other materials which bore on the price of wool that it was

not allowed to get above a certain point. It had since about recovered the price which it then lost, but if they tried to get it up higher, the trade would in his opinion go back as it did before.

Mr. COKE said Mr. Fison had spoken exactly his sentiments; he believed that trade was never in a more wholesome state; but that by asking out of the way prices they would do injury, and would produce a bad effect upon the fair, now one of the most thriving and respectable in the kingdom. He then gave "the Bishop of Norwich."

Mr. BRYANT said he thought Mr. Coke was in error as to the value of Southdown wool; he did not think he had asked more than Southdown price.

Mr. ELLMAN said that from the best information he could gain he believed that 20d per lb was about the price in Sussex, taking all the wool together, but it was not the practice there to shear the lambs.

Mr. MUSKETT rose to offer the Duke of Norfolk's wool, amounting altogether to nearly 2000 fleeces. The fat sheep had been fed in the yard, some of them tied up in stalls, which gave a superiority to the wool over those which were fed on the turnips. He could not give way to Mr. Coke's opinion as to the superiority of the Hampshire cross. Though he admitted that that gentleman's flock was brought to great perfection, he must still think the pure Down superior. He begged to offer the Duke of Norfolk's wool to Mr. Fison, the Hog wool at 56s, the Ewe and Fat Sheep at 45s.

Mr. Fison said there were two points in the Duke of Norfolk's wool which ought to be mentioned. There were upwards of 16 score of the fat sheep, which from the length of staple, owing to their being housed, were of rather more value; and the flock had been twice washed, a plan which he had known to be pursued with great success in several cases, and he had no doubt if generally adopted would amply remunerate the growers for the additional trouble. The first washing appeared to give a kind of impetus to the growth of the wool, and to produce a superior quality. He thought the price asked was too much, but wishing to meet the growers in a liberal spirit he would give 56s for the Hog wool, and 44s for the Ewe and fat sheep.

Mr. COKE asked for information as to washing the sheep twice, a practice which he had never heard of before.

Mr. MUSKETT said the fact was that the sheep were so badly washed in his absence (the shepherds having got drunk) that he made them wash the sheep over again two days after.

Mr. COKE said that no doubt the housing of the sheep gave the fleece an additional value; in the countries where fine wool was produced, they were all housed at night; but though the Duke of Norfolk might have conveniences for this purpose, farmers in general had not.

Mr. MUSKETT said he was not inclined to abate from his price. Mr. Head had shown a sample of the wool to dealers in London, who considered it so superior that they would not believe it to be Southdown.

Mr. Fison said he would give 45s for the fat sheep and 44s for the ewe; Mr. Muskett accepted it and then offered his own wool (part of it half-Leicester) at 54s and 42s. It was eventually taken by Mr. Head at that price.

Sir C. CLARKE offered his small quantity of half-Leicester Hog wool, about six score fleeces, very good and clean, to Mr. Waller at 56s. With re-

spect to what had been stated as to the effect of housing sheep, it stood to reason that any animal which was kept quiet and well-fed should produce a larger quantity of wool or hair, than those which were subject to the wear and tear of searching for their food.

Mr. WALLER accepted Sir C. Clarke's wool, and also Captain Fitzroy's at the same price.

Business now proceeded briskly, and the following sales were made in the room:—

	Hoggets.	Ewe.
Lord Berners's, (Hants cross) to Mr. Pymmer .....	56s	44s
Sir W. Folkes's, to Mr. Sherringham ....	56s	42s
Mr. Pratt, to Mr. Waller .....	56s	45s
Mr. Cully, (half Leicester) to Mr. Waller ..	56s	—
Mr. Blyth, to Mr. Baldry .....	56s	45s
Mr. Gill Steadman, to Mr. Head .....	56s	44s
Mr. Reeve, Buckenham, to Mr. Gardiner ..	56s	43s
Mr. Wrightup, Ashill, to ditto .....	56s	44s
Mr. Cook, Livermere .....	56s	44s
Mr. Bryant, Exning .....	54s	44s
Mr. S. K. Gayford, to Mr. Culham .....	54s	43s
Mr. Thompson, Mundford .....	56s	42s
Mr. Rodwell, Livermere .....	53s	42s 6d
Mr. Shillito, to Mr. Fison .....	54s	43s
Mr. Flowers, to Mr. Pyman .....	54s	42s
Mr. Swann, Hockham, to Mr. Culham ..	—	43s
Mr. Stephen Head, to Mr. Culham .....	—	43s
Col. Ray, to Mr. Turner .....	(Net) 54s	42s
Col Rushbrooke, to ditto .....	ditto	—
Mr. Sparke, Pakenham .....	—	44s

Mr. Cooper (Roundham) offered his wool to Mr. Culham at 56s and 43s.

Mr. Culham bid 54s and 42s. Not taken.

Mr. Abbott offered his at 58s and 46s; but it was not taken. (Mr. Coke's tenants in general did not offer.)

Mr. G. Gayford asked 56s and 43s of Mr. Fison and was offered 54s and 42s.

The CHAIRMAN proposed to drink "Prosperity to the Norfolk and Norwich Yarn Company."

Mr. DODSHON BLAKE returned thanks, and observed that last year they had the pleasure of making a dress of Mr. Coke's wool for Lady Ann Coke: he now begged to request her Ladyship's acceptance of a shawl, which he trusted would show that Norwich was not behind other places in ingenuity. He was happy to say that the business of the Yarn Company had greatly increased. Last year they were employing 2000 spindles; they had now increased to 5000; their consumption of wool had increased from 200 to 500 tods per week, and if the arrangements which were now contemplated should be carried into effect, he hoped the present amount of business would be doubled next year.

Mr. COKE said he was sure that Lady Anne would be most gratified in accepting the shawl. The shawl was then exhibited to the company. It was splendidly flowered on a black ground, and appeared to be of beautiful texture, made by Messrs. Shickle, Towler, and Campin.

Sir C. CLARKE proposed the health of Lady Anne Coke, when the rule not to cheer, which had been laid down at the beginning of the afternoon by the chairman, was broken through with three times three, and three more.

Mr. COKE returned thanks for the compliment paid to one who had contributed very greatly to his happiness.

Mr. WALKER afterwards gave the health of the Heir of Holkham. Mr. W. exhibited an excellent piece of Norfolk manufacture, called "Norfolk Merino" made by Messrs. Willett, from Southdown

wool grown in this county and manufactured at Norwich.

After expressing his gratification at the quantity of business done, which was greater than he had ever known, Mr. Coke retired. A great many other sales were effected.

**DEVIZES WOOL MARKET.**—The first of our wool markets was as might have been expected from the number of large flock-masters and dealers by whom we are surrounded, was remarkably well attended. Upwards of 200 bags of wool, by far the greater part samples, were exhibited for sale, and by half past 12 o'clock nearly two-thirds of it had changed hands. The large room at Mr. Hazeland's, commodious as it was thought it would be for the purpose, was crowded, and some inconvenience was experienced in consequence. The prices varied but little from those of late fairs.—Ewe wool from 42s to 44s; mixed flocks, from 44s to 49s; tegs from 47s to 51s.

Observations of Mr. Ellman and Mr. Benett at the dinner.

Mr. THOS. ELLMAN wished to remark upon the quality of the sheep exhibited this year, which was superior to those exhibited last, although the numbers were not so great. He could not account for the deficiency, unless it arose from fear on the part of those who have been in the habit of competing at the show in former years. He urged on the Wiltshire farmers to competition the next year, as that alone would give a stimulus to improvement; he also recommended the breeders of Southdown sheep to persevere in growing *fine* fleeces of wool, and not altogether to lose quality for quantity. The preference to quantity, both in meat as well as wool, was already too apparent, either for the benefit of the grower or the consumer, inasmuch as a less valuable commodity was grown with additional expense. The late improvements in machinery increased the value of all fine wool grown in this country. A short time since, the whole of the Southdown wool was used for clothing purposes; now the greater part was *combed*, and used to more advantage. He would state that the finest wool (provided of sufficient length to comb), was worth the most money, because that description would supersede the use of any other. Indeed the Southdown wool of the finest quality could now be used in making goods more valuable than could be made from any longer and coarser description of wool. The reason was this, that the longer and coarser wool could not be so nicely united to make a fine thread as was the case with the finer description, which latter sort was capable of producing the finest thread of the greatest length. So much for the skill of the manufacturers, to whom we are ever indebted for their enterprise. Another reason which induced him to pay attention to the growth of fine wool was, that the better the quality of wool, the better the flesh of the animal; and indeed a fine close coat was a better protection against the inclemency of the weather than one of a looser and coarser sort, although the latter be somewhat heavier. Mr. Ellman also noticed the subject of shearing the sheep, as closely connected with the former question. He observed that dispatch and neatness of work were highly desirable.—It frequently occurred that a shearer, from want of practice, was either too tedious to satisfy himself, or too bad when his performance was hurried, to give satisfaction to his employer; therefore a man might be able to shear a sheep tolerably well when too much time was allowed for either his or his employer's benefit, but not be able to make himself generally useful. In Sussex, the time allowed to every man for shearing of one sheep, was half an hour, and the number shorn was six sheep; at all

events, two hours appeared to him quite time enough to be allowed for shearing of three sheep. If the Wiltshire sheep-shearers were not so expert as the Sussex men then more time might be given to them—they would do well to run the race a little faster—in fact, they required better training. Mr. E. again referred to the subject of wool, and highly recommended the breeders of Southdown sheep in Wiltshire to pay equal attention to the quality of the wool and to the quality of the flesh, being persuaded that in the long run this course would best answer their purpose. Mr. E. apologised for having detained the company so long, again thanked them for the honour conferred upon him, and begged to drink all their good healths.

Mr. BENETT said that Mr. Ellman had been playing into his hand remarkably well, for he was one of the very few persons in the country who had any merinos, and he had no doubt after what had been said, he should receive a great many applications. Mr. Legge, an excellent judge in these matters, had bought his wool for the last two years; and it was but a fortnight ago, that he strongly recommended him (Mr. Benett) never to give up his fine wool; it had been lately discovered, that any number of fine threads might be united and twisted together like a rope. He knew that Lord Western's lambs were purchased for 4 and 5 guineas each to be sent abroad.

**ISLESLEY WOOL FAIR.**—PRIZES APPOINTED FOR NEXT YEAR.—At the Islesley wool fair Mr. Ireland, (a wool buyer,) said as long as he could get remunerating prices as a manufacturer, he should be with the growers; and as some inducement to them, he would give for competition at the annual fair next year, a five-guinea cup to the farmer who shall produce not less than 100 of the finest and cleanest Southdown ewe fleeces, appropriate to manufacturing purposes, the growth of ewes shorn on his farm. Mr. Bailey of Calne, in proposing the health of the Farmers of Berkshire, said, as a farther inducement, he would give a silver cup, value 10 guineas, to the Berkshire farmer who shall produce at the next Islesley wool fair, the best and cleanest Southdown teg wool (not less than 100 fleeces) of his own growth, and the entire of such growth to be brought in the bulk. The lambs to have been bred in the county of Berks, and to have been in the possession of the claimants six months before the fair day, of which satisfactory proof must be given to the judges.—A subscription cup, value 20 guineas, will also be presented to the largest purchaser of wool at the fair, on the first Wednesday in July,—and a second prize of 10 guineas to be given to the person purchasing the second largest quantity at the same fair.

**BEDFORD ANNUAL WOOL FAIR** took place on Wednesday, and a large party dined at the Swan Inn, F. Pym, Esq. in the chair. About 130 sat down to dinner, amongst whom were Mr. Crawley, T. C. and W. Higgins, Esqrs. and the leading agriculturists of the county. There were more samples shown and more business done at good prices than has been known at Bedford for many years. The prices appeared to be from 45s to 48s.

**NORTHAMPTON WOOL FAIR.**—The following is an account of the sales which were effected:—

Owner.	Buyer.	Flees.	Ewes.	Tegs.	Price.
W. B. Potterton	Osborne	368	91	277	46s.
R. Rogers, Cooknoe	Bunting	461*	204	269	41s.
N. Potterton	Do.	450	more than half hog		41s.
Hillyard	Gurney	200	120	80	42s.
Tunnell	Bunting	363	102	261	41s.
R. Heygate	Peach	299	204	82	41s.

\* Mr. Rogers' Sheep were crossed by the Down.

Several other lots were offered but were not disposed of.

The ANNUAL LEICESTER WOOL FAIR has gone off well. Buyers and sellers were numerous,

and much business was done. The quantity of wool was, lots, 54; fleeces, 6515; of which there were sold 6048. The average price was 43s, half and half. The silver cup presented to the largest buyer was carried by a Mr. Jacques, who bought 465 tod.

At CHURCH STRETTON the quantity of Wool was less than usual, and bought up at an advance of 2d per lb beyond last year's prices. Longmynd wool 18d to 20d; fine Southdown 21d to 22d. All the large lots usually brought to this fair, were, (as we are informed by a respectable correspondent) bought up a few days before.

PETERBOROUGH.—The second annual meeting for the sale of wool was held on the 12th, but the buyers are not disposed to encourage the establishment of an *open market* for this article; therefore but a few bargains were made. The prices varied from 41s to 42s per tod, according to the proportion of hog and wether fleeces.

BUCKINGHAM WOOL FAIR.—The quantity pitched was not near so large as on previous years. Prices averaged from 44s to 48s per tod; some of the best tegs fetched 51s.

AYLESBURY WOOL FAIR.—Quantity brought to the fair—25,328 fleeces; sold, 22,000 do. Prices from 40s to 51s per tod. The cup was awarded to Mr. Payne, of Thane, who purchased 11,000 fleeces.

SHREWSBURY.—Wool: very little was brought either to the corn market or to Howard-street. Prices varied from 17d to 19d per lb; some lots 20d. Lambs, wool, 14d to 15½d per lb. All was sold.

KENMARE.—A few parcels of wool were brought forward, which were mostly bought for country purposes; laid, 10s to 12s per 22lbs; scoured, about 19s; English wool, 20s per do. The 'clip' is, we are sorry to hear from all hands, to be very deficient this season. Not to reckon the damage sustained by the loss of so many of the sheep, in the bygone winter and spring, the quantity will be "fleece for fleece" about a fourth or fifth short, and also of an inferior quality, owing to the leanness of the cattle.

DUNSE.—In the Wool Market a good deal of business was done, there being a number of buyers in attendance, and prices for each kind were from 1s to 2s 6d above those of last year. Bred wool hog, entire, sold at from 43s to 44s; ewe from 32s to 33s; grey-faced hog from 32s to 33s. Only one parcel of laid Cheviot that we could learn was disposed of, the price of which was 24s; but from 24s to 25s was offered for this description, Black-faced wool sold at 14s 6d per stone.

BERLIN, June 28th.—Our wool-markets are now drawing to a close one after another. The general result to be deduced from the collected reports is, that as yet, no diminution of buyers from England is to be observed, the same number of customers has been counted at Breslau, at Stettin, and at this place; nor have the prices of the better sorts been lower; nay, in some cases, the extra fine wools have fetched higher prices than in 1835. Indeed, it is rather doubtful whether England will be a gainer by taking less of our raw wools, even if, by the increased production of her colonies, she should in future be able to dispense with us. For, let me ask you, what would be the immediate consequence? Germany, instead of selling her wools, would soon compete with you in selling her *woollen manufactures*.

NEW BRANDENBURG.—At the fair held here on the 16th, 17th, and 18th June there were 4,400 cwts. of wool, all which were sold on the first day, excepting a few parcels, and these met with purchasers the day following. The earlier washed wools

left much to be desired, but the later were better, and by far the greater part might be called superior in that particular. There was a general complaint that the wool was badly shorn. The traffic was brisk, and handsome prices have been realized, mostly 1 to 1½ dollars higher than last year. Some individual growers got half a dollar advance only, but others got two dollars and upwards. Of the quantity sold, more than three-fourths has fallen into the hands of foreign speculators: those from England, Hamburg, Hanover, and Sweden, were the greatest buyers. Generally speaking the demand was brisk, and the buyers were numerous, and they, as well as the growers, have left our fair satisfied.

GOPPINGEN, June 30th.—In the course of yesterday and to-day every thing remaining has been cleared off except a few parcels for which too high prices were asked. Wools at 130 to 135 florins, and lower sorts at 115 to 128 florins, as well as good bastard-wools at 100 to 110 florins, went off very smartly, and of those at 80 to 98 florins, the quantity was hardly equal to the demand. Good country-wools fetched 50 to 60 florins. The total quantity brought to the fair exceeded 4000 cwt.

HEILBRONN, July 2.—The supplies to this wool-fair are extensive. With the exception of a few parcels of fine wools every thing is sold at very good prices.

July 4.—There is yet unsold a little wool, the prices of which were fixed too high. It is to be regretted that larger quantities have not been sent, as many buyers have been able to supply themselves only partially, or even to go away without purchasing; whence, also, it has followed that prices here have been some per cents higher than in Kirchein and Goppingen.

PESTH, June 12.—In consequence of the had weather, the clips in Hungary, as in other countries, have been retarded, and it therefore cannot yet be accurately determined what proportion the produce will bear to that of last year. It would appear, however, that in consequence of the deficiency of fodder the quantity will be by no means augmented.

The buyers were very numerous, but their operations were checked at first, as well by the bad quality of many of the wools brought hither, as by the extravagant demands of the farmers. After a while the two parties came to an approximation, and clean wool fetched an advance of 10 florins the cwt higher than last year; wools not so well washed, on the other hand, were sold at the prices of 1835. In this way there will have been above 30,000 cwt disposed of. What is left consists chiefly of heavy, sandy wools, the owners of which are too proud to accept for their bad article, offers which in our opinion are not bad, and therefore hold out for the smaller fair which takes place at the end of June, when they expect higher prices.

HANOVER, July 8.—1630 cwts. of wool were brought to this fair which ended yesterday, and 1625 cwts. were sold. The demand was beyond comparison greater than last year, and the number of buyers was so large that two-thirds of the entire quantity were sold on the first day, at prices which reached two to six dollars per cwt. higher than last year. Fine wools 80 to 105 dollars; middle-fine 60 to 70 dollars; middle country wool 40 to 52 dollars; ordinary wools from the Weser, the Alle, and the

Leine 29 to 32 dollars per cwt. of 117½ lbs. Cologne weight. The total amount of wool sold is 80,000 to 90,000 dollars.

CASSEL, June 29.—The quantity brought to this fair is less than last year's supply, but sales have gone off with spirit from the very first opening, and at high prices. The finer and mid-fine wools have fetched on the average 10 dollars the cwt. more than last year. The lower country-wools have also advanced in price, though they have not been so much sought after. The buyers were very numerous.

## HOPS.

TO THE EDITOR OF THE NORWICH MERCURY.

Dear Sir,—When last I had the pleasure of seeing you here I think I intimated to you my intention of again visiting the hop districts of Kent, in order to ascertain the relative state of those gardens with my own, as to their forwardness, strength of bine, colour of foliage, and general health. I have just returned from a very delightful and most satisfactory journey; but before I proceed further I must thank you for the very flattering manner in which you took notice of my hop-growing speculation in your paper of the 18th ult.

The great interest you have shewn from the very commencement of my new undertaking, I beg you will accept as my apology in again troubling you for a space in your paper, to lay before the spirited and intelligent agriculturists of this county the result of my late investigation, which is shortly—

That I visited and walked into many thousand acres of hop grounds in the best parts of Kent, and that I did not see 50 acres of hops in the whole extent, of such strength of bine, such size and colour of foliage, or of such general power and health, as the two acres now growing at Honingham; and this I assert, leaving the age of all the gardens out of the calculation. The two acres on this estate are now only fifteen months old, one of which was planted with cuttings that had travelled 150 miles in a drying East wind, the other with badly-reared plants—while the thousands of acres I visited in Kent, and many of those belonging to the largest and best cultivators in that county, were all of them, old established grounds. Should the truth of this assertion be doubted, the hop garden at Honingham is not locked up in an iron safe, nor are those of Kent quite out of reach. I have said before, and I repeat it, that I court enquiry upon this subject, and shall be happy to see at any time practically-experienced persons, or novices wishing to commence this interesting and beautiful cultivation. I may now be asked how has this rapid and powerful growth been obtained? I reply—first, by superiority of soil; secondly, by deeply trenching the whole land to be planted; and thirdly, by a very different mode of planting and general management of the plant afterwards than that which is now adopted in any of the hop counties, the principles of which I will readily communicate to any person, and which I think in no small degree have tended to the production of the enormous and unexampled power I have obtained in the infant growth of fifteen months! We are all aware that so uncertain is the hop crop, that until the produce is in the bag it is not safe. Indeed, while I am writing, a violent S.W. wind is doing infinite mischief, but to this, and even greater miseries, we are

no more liable than the growers of Kent and other hop districts; nor as yet does it appear that our eastern exposure has presented any impediment whatever to the introduction of the hop plant into this county, which has now passed one of the most to be dreaded and most dangerous stages of cultivation, when the aphid frequently destroys all prospect of a full crop. At present there is not a destructive insect of any kind to be found upon the foliage of the plant, and up to this date a fairer promise was never seen than the little garden in this parish now presents; but whatever be the result of the year's work, you may rely on a correct and true statement of the weight and quality of the crop, which I shall again have to thank you for inserting in your valuable columns. In the interim,

I remain, dear Sir, your's, very truly,  
RICHD. CRAWSHAY.

Honingham Hall, July 19, 1836.

P. S.—I have great pleasure in saying, that the young plantation of eight acres here; Mr. Tompson's, of Witchingham; Mr. Toll's, of Keswick; and Mr. Ward's, of Dereham, are all doing remarkably well, notwithstanding the great check given to many of the hills by the early ravages of the wire-worm.

## TRIFOLIUM INCARNATUM.

TO THE EDITOR.—Having experienced the value of the Trifolium, and understanding that some persons have been disappointed in obtaining a plant this year, which I cannot help thinking must have arisen generally from mismanagement, I take the liberty of offering a few observations upon its cultivation. In September, 1834, I sowed three small pieces of light land: one piece I mowed green for horses, and certainly never had the same quantity per acre of either tares or lucerne; all stock are fond of it, and thrive astonishingly upon it—another piece was mown for stover and made the best of hay—the third piece stood for seed, and produced about twelve bushels per acre.

In September, 1835, I sowed two pieces of wheat stubble where the clover layer had entirely failed before the wheat crop, and a piece of barley stubble which had tired of clover, and succeeded in obtaining a good plant upon each. Many of our clover layers this year proved a failure. My mode of cultivation was, first to use Finlayson's harrow to raise a mould, then level it with small harrows twice over, and finish with a heavy two-horse roller, as the land cannot be made too solid. Two other pieces, having hog-grass upon them, I was induced, unwillingly, to plough before sowing; in both instances the Trifolium entirely failed.

I can further testify that several of my neighbours who sowed the Trifolium were completely successful, and where, by way of experiment, the land was ploughed, they were equally disappointed.

I therefore feel justified in concluding that, by raising a mould without ploughing, and by sowing the Trifolium in August or September, a good plant of the best food that can be given to stock may be obtained without risk.

A CONSTANT READER.

Tending Hundred, July 22, 1836.

P. S. I would recommend a peck and a quarter of seed per acre.

## AGRICULTURAL REPORTS.

## BIRMINGHAM, 7th MONTH, 7th, 1836.

Since our last we have experienced a succession of fine showers, and although much more rain was wanted, yet the quantity that has fallen proved quite sufficient favourably to affect the growing Wheat, and upon the whole we think there is at present a prospect of a good yield in proportion to the straw, but it will be seen from the annexed extracts from letters of our correspondents, which are confirmed by verbal communications with our farmers, that there is a general belief the crop will not prove an average one except on the best and well cultivated farms, and if it be true, as commonly stated, that the breadth planted is much below an average, it is highly probable this year's crop will be unequal to the consumption. The Ports for one district in France having been opened for the admission of Foreign Corn, this circumstance, together with orders from England, has considerably affected the prices in the shipping ports of the Baltic, notwithstanding the stocks in most of them are very heavy, and the supplies from Poland into the Black Sea expected to be large this Summer. The late account of crops in Italy notice their improved appearance, and prices were receding in consequence. Sales of Irish Red Old Wheat have been effected at 5s 3d to 5s 10d per 60lbs. at Gloucester during the last month, which is about its present value. English is now worth 6s 4d to 6s 8d for Red, and 6s 8d to 7s for 62lbs. at Birmingham for White Wheat.

The late rains will prove most serviceable for the Barley, which crop had previously an unpromising aspect, and but for this timely supply of moisture, would have been a failure. It is still suffering for want of wet, particularly on the light soils, and there is reason to suppose it will yet fall far below an average produce. Last year's crop, though very large, seems almost entirely cleared off, and we anticipate a scarcity for feeding purposes when the season commences, and many are of opinion that Malting will open high compared with many previous years. It is now worth 36s to 39s per imperial quarter, and Grinding 31s to 33s per 392lbs. at Birmingham.

The early sown Oats took well, and though short in the Straw the head is good. There has been a more liberal supply into Gloucester lately, but as the stocks on hand are still light, we do not expect them to give way much in price. Light sell slowly at 22s 6d to 23s 6d; Heavy, 23s 6d to 24s. Welsh Black, 23s 6d per 312lb. at Gloucester.

Beans, although short in the stalk, are on the good lands generally pretty well podded, but cannot be a productive crop without more rain. They are in fair demand at 17s per 196lbs. or 45s 4d per quarter here. The expected liberation of Foreign will probably prevent any further advance for the present.

The early Peas will be a good crop, and the late ones are promising. There are none now offering on our market.

We have considerable enquiry for coarse Flour, and good qualities are saleable at 22s per 280lbs. at Gloucester.

We remain respectfully,  
JOSEPH and CHARLES STURGE.

CORNWALL, LOOE, July 2.—In compliance with your request, I beg to say, our corn crops, (particularly

wheat) have risen thin. One field which I have inspected, seems much affected with the honey speck. I will not take upon myself, as yet, to say it prevails generally, though my present impression is, that it does so more or less. Of Barley we have no more left than will suffice for local consumption. Under the most favourable circumstances, it is not likely harvest will become general before the middle of August.

BUDE, July 2.—In reply to your inquiries, the wheat in this district has generally looked well during the winter, although it has risen thin. Should the yield be good, it is sufficiently thick to produce about an average crop. If the season be unfavourable for the kerning, it must be considerably short. In the best land and climate it is generally in bloom and will not be very late; but in the great proportion of this district it will be very late. The spring crops suffered very much at first from drought; it has improved, and is fast improving daily. I rather question whether we may not have a fair crop. Potatoes have generally grown well this season. A very large tillage of turnips is prepared. Grass is very short, and has been through the spring.

BARNSTAPLE, July 1.—This part suffered much by the long drought, but since the rain, every vegetable matter has improved in a very considerable degree; yet, when this is acknowledged, wheat in almost every situation will be extremely thin. This complaint also applies to barley and oats, except such as was early sown, which is now looking well; and as the weather is at last become hot, the kerning may be good, as most of our early sown wheats are getting into blossom. The shares of clover and eiver are lighter in every situation than we have known for many years. A great number of fields of this sort are to be found with not a cart load of hay per acre. Meadow grass, though deficient, will be a better share, but it will come very late to cutting, as the farmers in general were obliged to stock such land with cattle until a late period, as they had no other food for them to eat for many weeks of the late protracted and severe spring.

SOUTH WALES, NARBETH, July 4.—In compliance with the request in your favour of the 30th ult. I beg to inform you that the growing crops of wheat, barley, and oats in our neighbourhood are in a thriving condition, and we expect a full average crop of each, provided we have favourable weather from this out. Our harvest will be later than usual. In the month of May we expected there would be a complete failure; since which we have had sufficient rain, and the change appears almost miraculous. This is the general opinion amongst all the farmers we have conversed with on the subject.

HAVERFORDWEST, July 2.—Agreeably to your request, I beg to say, that from all the inquiries I have made of the farmers respecting the growing crops, I find Wheat is likely to be a thin crop. Barley and Oats promising well.

FOREST OF DEAN, July 2.—The Wheat crops are generally very thin and light, and I think will be one-fifth below an average. Barley is very irregular. Beans have greatly improved, and on the whole look well, though short in the straw.

WHITMINSTER, GLOUCESTERSHIRE, July 2.—The wheat is generally thin upon the ground, except on the strong and best cultivated land. There are some fields of good barley, but the greatest part is irregular, and cannot prove a good sample. Beans mostly look well, and probably will be a fair crop.

DURSLEY, 7th month, 5th.—The crops in general look well. Wheat, barley, and beans, with few exceptions, promise a fair crop, though in some situations it will be short in the straw.

COTSWOLD, July 5.—The wheat crops are irregular in some situations. There is a prospect of a fair

crop, but to a great extent they are thin, and on the whole, the crops cannot be nearly so good as last year. Barley also appears likely to prove a very variable crop. Some fields good—others thin and light in straw. Beans generally look well, and a fair crop of this grain may be expected. The oats grown in this quarter are likely to prove a light crop.

BEWDLEY, 7th month, 5th.—Agreeably to your request, we now give you the best information we can get respecting the crops in this neighbourhood. The wheat, by every farmer we have spoken to, is said to be thin on the ground, and many say they have not had so poor a prospect for many years. We are satisfied it will be deficient in straw, but the yield may be productive. The barley is generally looking well, but on light soils, except where there was a good crop of turnips, will certainly be less than the last two years. But several parties, who do not farm very light soils, say it will be their best crop. So little of any other grain grown near, we do not notice them.

WORCESTER, July 2.—In this neighbourhood, particularly on the Herefordshire side of the county, much less rain has fallen than in most parts of the kingdom, consequently, all kinds of sprung corn are suffering for want of wet; and unless rain comes very shortly, barley on the ryelands will not be half an average crop; but in some of the well farmed heavy soils, it is still promising and very healthy. Beans, except winter ones will be deficient. Peas, to all appearances, will prove generally a good and abundant crop. Oats will be generally short in the straw, but unless when late sown, are heading well. The present dry weather is in favour of wheat, but it is so thin on the ground that it cannot turn out an average produce, and in some of the shallow soils rain would improve it. The drops of grass mostly very short, but are being secured in fine condition.

NEAR STROUD, July 2.—Wheat is greatly improved, but will be thin, except on the best lands. Barley is quite irregular, and cannot prove equal to last year either in quantity or quality. Beans generally look well, and promise a fair crop, though short in straw.

CLEOBURY, SALOP, July 6.—I am sorry to say I have a worse opinion of the crops generally than when I last saw you. The grass comes down exceedingly light, and I am afraid it will be found so with all other crops, when cut. My opinion still is, that wheat is decidedly the best crop—I should say nearly an average. Oats and peas the next in quantity of holm and straw. Barley, beans, and all other crops very light, and our barley that I was speaking well of is fallen off, and does not seem to ear out kindly at all, I conclude for want of rain.

BARNSTAPLE.—This part suffered much by the long drought, but since the rain, every vegetable matter has improved in a very considerable degree; yet, when this is acknowledged, wheat in almost every situation will be extremely thin. This complaint also applies to barley and oats, except such as was early sown, which is now looking well; and as the weather is at last become hot, the kerning may be good, as most of our early sown wheats are getting into blossom. The shares of clover and civer are lighter in every situation than we have known for many years. A great number of fields of this sort are to be found with not a cart load of hay per acre. Meadow grass, though deficient, will be a better share, but it will come very late to cutting, as the farmers in general were obliged to stock such land with cattle until a late period, having had no other food for them to eat for many weeks of the late protracted and severe spring.

SOMERSETSHIRE and WEST of DORSET, 7th month, 3d.—There is certainly a great improvement in the appearance of the growing wheat, which is acknowledged on all hands, and the deficiency, according to present appearance, will be much less than was expected in the spring; but still, taking into consideration a less quantity having been sown, it will be very considerable. On good land I should say the crop will be an average one. The report of the bean crop is,

that it is short, but well podded. On good land there is a prospect of an excellent crop of this article, and I think more than a usual quantity has been sown. Oats do not promise well. There are very good accounts of barley; as on good land the dry weather will not affect it, but on poor land there may be a short crop should there be no rain for some time. Flax is various; but on the whole very deficient to the produce of the past year.

SHREWSBURY and SALOP, 7th Month 4th.—The wheat round here, and in the adjoining counties of Flint, Denbigh, Montgomeryshire, is much improved in appearance these last six weeks. On good soils an average crop is expected; but on cold land not more than two-thirds, even should the weather prove favourable. Good wheat sold last market day at 8s to 8s 3d per 75 lbs, with a fair supply. Barley is likely to be good; the oats generally very middling, and hay very deficient; not half the usual quantity.

GLOUCESTER, 7th month, 6th.—After considerable observation and many inquiries, I am led to conclude that the wheat crops on strong and highly cultivated lands will be likely to prove an average crop, if the present very fine weather should continue; while on thin, weak, and cold wet lands, it will be very deficient of last year's, probably to the extent of  $\frac{1}{2}$  and  $\frac{1}{3}$ , while it is allowed that the breadth of land, under what, is much less than in the two or three last years. Barley appears likely to be a very variable crop. On some lands it is good—on others, to a great extent, middling, or very bad. There will, probably, be a great difference in the samples next year. Beans appear likely to produce a good crop, though rather short in straw. The blossom has been remarkably fine. The few pease planted are likely also to yield a crop. Oats are but little cultivated; the appearance very variable; on the whole there will not be a good crop.

#### BEDFORDSHIRE.

We have now arrived at that period of the year when every thing relating to agriculture, possesses the highest interest; not merely to the husbandman, but to all who wish well to the country at large. For whatever nostrums may prevail among political economists, as to whether this or that soil should be cultivated, the expense is now incurred, the seed is sown, the cultivation has been bestowed, and therefore whatever the earth produces, must be so much real value created, and in which the consumer has scarcely a less interest than they who have been the immediate instruments employed. Holding such sentiments then, we have much pleasure in reporting every circumstance which can be favourable to the general weal, and we have not a moment's hesitation in saying that during the last month the crops generally made very great progress, and have improved much more than appeared at all probable at the end of the previous month; and from the atmosphere being for the last two or three weeks rather unusually hot, the harvest will not be so backward as was previously expected; indeed, should the present hot weather continue, in the forward districts of the county, we should not be surprised if wheat were cut before the termination of the present month, while the general harvest will probably commence in about four weeks from the present date. The wheat crop, after all the improvement it has made will still be deficient, and much lighter than the three last years, and unless it should yield unusually well from the flail must be below the average of years. As to the barley, we cannot speak with so much confidence; our own opinion is that there is pretty nearly an average bulk, and certainly more acres sown than usual, which is the exact reverse of wheat. The early sown barley, upon the strong soils, and the better descriptions of convertible land, is very fine,

while the late sown clay barley is bad enough, and on the southern side of the county the season has been too dry throughout, to secure a heavy crop. Peas bid fair to be an unusually good crop; and the beans, where they were early set, and under good cultivation, there is nothing amiss; but the later crops will be short in the straw, and mean altogether. The oats promise well as far as they are cultivated here, which, however is but on a very limited scale. The pastures are drying up very fast, and unless rain should come shortly, the drought will soon be severely felt. For the same reasons the turnips progress but very slowly, upon all but the very best turnip soils. All those sown previous to the 12th of June, except a few very early fields, have been dreadfully worried by the fly, some of which have been re-sown, and other fields look most unsightly. The hay is a very light crop, clover in particular, but nearly all will be well got up, so that the quality will be unusually good. The price of wheat has again retrograded and, it seems that low prices must still be the order of the day. Wool however, is an exception to the general rule, and is selling pretty freely at good prices. Best Leicester tegs make 50s; ewe from 40s to 42s per tod. Average clips about 4s to 45s. These are prices not to be complained of, and if the price of corn was at all upon the same scale, things would go on better. Labourers are pretty generally employed, more particularly adjacent to the new rail roads, which take up an immense number of hands, while the improved system of poor laws have acted most beneficially upon the whole prodigal part of our population, so that rates are somewhat reduced, and at the same time, deserving labourers obtain better wages. The comfort of the farm labourers, however, will never be fairly attended to, while they are deprived of a wholesome untaxed beverage in the farm house and in their own dwellings, by which means the great bulk of them are now driven to the tempting demoralising beer-houses. Surely, when the two committees on the state of agriculture shall have made their report, parliament can no longer continue a cent per cent tax, at any rate, upon the poor labourer while he sows, and mows, and thrashes out the raw material on which the tax is laid, or upon the grower of that barley, when it is turned to the most profitable account of feeding the stock of the farm. Your reporter holds the tax on barley in any form to be an impolitic and an unjust tax, but as it bears upon the parties just alluded to, we denounce it as a decided cruelty to the labourer, and a direct violation of the Levitical Law which declares, "Thou shalt not muzzle the ox that treadeth out the corn."—*July 8.*

#### BERKS.

A considerable part of the month of June was cloudy, cold, and unkind, and on several mornings there was a white frost, and also several thunder storms and showers of rain, but during the last week it was clear, hot, dry, and seasonable weather. The haymaking was much delayed at first, but it is now getting on very fast, and in a few days more it will be nearly all done in this county. Some of the ray-grass, hop-clover, and early-cut sainfoin received considerable damage from the showers, but all that has been cut within the last ten days have made most beautiful hay. The quantity of hay throughout the hilly parts of this county is, we think, far less than usual, and scarcely any sorts of grass but young sainfoin that has produced an average crop, but on the low lands the meadow grass has much improved, and the clover turns out better than we expected. Most of the turnip land is now sown, and numbers of acres the second time, but still there is at present

but a poor prospect of a crop; the early-sown turnips came up and looked well for a time, but the cold nights retarded their growth, and the fly being very numerous there was not one acre in fifty that escaped the ravages of this voracious but diminutive insect. A large number of acres were again sown during the showery weather, and they quickly came up and looked uncommonly well, and some few acres on good soils are grown out of danger, but the weather having again set in dry, and the fly being uncommonly numerous, we are fearful that most of them will be devoured, and the farmer again disappointed. The turnip ground, has, altogether, worked well, and if it was not for the depredations of this insect, there is every prospect of a good crop. The winter vetches of late have much improved, and sheep keep at the present time is tolerably plentiful, but sheep have done worse than usual at the vetches, and the shepherds ascribe it to their being blighted and unwholesome. If the weather continues hot and dry, there will be scarcely any second crop of clover, and in some fields it is now drying up and getting less, but the spring vetches and rape are going on well, and seem likely to afford an abundance of keep. The crop of beans is likely to be a good one, and almost everywhere they seem to be podded well. The peas crop also promised very favourably until within a few days, being stout in the straw, broad in the leaf, and long in the pod, but they now begin to droop down, and on inspection it is discovered that every drooping head is filled with the green dolphin, and all but the early sorts will be most seriously damaged or entirely destroyed, except there should be a heavy thunder storm to beat down those insects and destroy them. It is really wonderful how such a number of insects can be produced in so short a time, and the rapidity with which they grow, and the short time they take to suck all the juice out of the plant is truly surprising. A good history of the habits, transformations, and propagation of the turnip fly, the green dolphin, the black, the wireworm, the black maggot, the sheep fly, the hopper, the bacon bug, and many other insects so injurious to the farmer, would be a most excellent publication, and in some instances would most likely afford him such knowledge as might enable him in some measure to check their propagation, and prevent their ravages. Oats are by no means likely to be a great crop, and barley on the light soils has been so much injured by the wireworm, and is so thin on the ground, that on such soils there is scarcely half a crop; on the deep strong heavy land it is looking better, but even there it is backward, and comes into ear very uneven. During the early part of the month of June the wheat got on most sadly, and came out in ear at different times, and grew to different heights, and altogether had a most deplorable appearance, but the moderate showers and the recent warm weather has unexpectedly drawn it out to a greater length in the straw, and somewhat improved its appearance, and it is now in a more forward state than we ever at one time expected, and if the weather continues hot and dry the harvest will certainly be a week or ten days earlier than we anticipated, and some of it will be probably ready for the sickle in about five weeks; at the present time nothing can be said of the produce as all must depend on the yield, but we seem certain that the crop cannot be a very productive one, as there is not bulk enough of straw for that purpose, it is expected that the sample will be a very uneven one, for about a third of the wheat in most of the fields is very small in the straw, and not more than about two feet high, while the rest of it is from that to four and a half high, and this uneven state of the wheat is pretty



general throughout this country, and as most of these underling ears are some days later in blooming, they will probably never arrive at perfection, but produce shrivelled grains that will be only fit for the chickens; such small ears being also tied up in the middle of the sheaf will not be dried by the sun, and will separate bad from the straw, and cause a deal of trouble to the thrasher. The appearance of the crops of corn looks much more favourable when riding and walking along roads and headlands than it does on a more minute and close examination, and we believe that many of the farmers are this year deceived, and think their wheat is far better than it will prove to be when it comes to be cut; but, nevertheless, we acknowledge an improvement has taken place of late, and we are in great hopes that the crop will be good enough to supply the consumption, and keep the average low enough to exclude all foreign, and prevent the money from being sent out of the country. The clip of wool is in most places deficient, and in the parts of the country where they usually had turnips, but were obliged to winter the sheep without, there will be full one-tenth short of weight this season on the very same sort and description of stock, and where the wool has peeled off the loss will be still greater. Oak bark is uncommonly good in quality, but it has not been so low in price for these 40 years; it is selling at 12l per load of 45 cwts. Pigs are selling rather higher in price, horses and cows at about the same; sheep, owing to the short quantity of hay and middling prospect of turnips, are not worth quite so much money.—July 4.

We have just been informed that the yellow fly, which produced the black maggot that eat all the turnips last season, has made its appearance in some places of this county, but we do not at present feel much alarm at this circumstance, for it appears that the eggs of this insect are deposited on the leaf of the turnip in the open fields without any protection, and our opinion is, that the least fall of rain, or even fog or dew, or rough winds or cold, will destroy the eggs, and make them abortive; and it is probable that this fly, nearly unobserved, has always made its appearance, but that it is only perhaps one season in 20 or 30 that our variable climate will permit the eggs to come to perfection; last year there was no wind, rain, or dew, just at the time as the fly was about busy depositing its eggs, but we do not apprehend much danger while we have such storms of rain and thunder as we had during the whole of last night.—July 6.

#### NORTH DEVON.

The rain at the commencement of the past month, and the copious showers since, have improved the crops beyond the expectation formed at the period of our last report, though, at present, the appearance is very different from that witnessed for several years past. Wheat now looks healthy in every situation, yet (with few exceptions) is extremely thin; the early sown on good land is mostly in blossom, some part in a more forward state, and as the weather is hot and dry the kerning is expected will be good. The wheats on clay soils and moorlands have been checked by the cold and frosty nights, which prevailed during the greater part of the month, and are now only breaking into ear; these also suffered much by the wireworm and ungenial weather in May, on many parts it is not calculated the produce will be more than five to seven bushels per acre. At the time the wheat broke into ear, it was not above half the height usual when this operation of nature takes place, which induced many to think it would be defective; this, however, is not now likely, as it looks well in every respect, except its thinness in the ground. The early sown barley (of which there is not much) has continued to look well, and is now mostly in ear; the remainder is of very unequal

growth, and consequently cannot produce an even and good sample; in fact our spring tillage was so late, that a considerable portion of the grain then sown, is not now sufficiently high to cover the ground; the early sown oats on good land look healthy and promising, but those on coarse moorlands (which is the greater portion) is thin and short, though the late rain has given them a more healthy appearance, yet the general state of the crops, leaves no reason to think the harvest will be so early as last year, by three weeks at least. Our markets are become dull for every sort of grain, as the farmers in whose hands it lies, are not disposed to give way in price. Wheat is offered freely, but at prices too high, unless for home consumption; barley is scarce, with an advancing price; oats are not plenty in the hands of the growers, and therefore they obtain high rates for the small lots sold. The cutting of clover commenced about a fortnight since, and a considerable portion is housed in good condition; the shares are much lighter than for many years past, a number of fields not having produced above a cart load of hay per acre, in some fields the quantity is less; in the meadow grass there is not so much to complain of, as it has improved since the rain beyond the most sanguine expectation, but it will be late before a considerable portion is fit to cut. Complaints are again made of numerous failures in the potatoe crop, in many places they have been planted a second time. The early sowing of turnips proceeded favourably, and such are now in their natural leaves, looking strong and healthy, though in many situations where the seed has been recently sown, the fly is proving very destructive. We are likely to suffer the entire want of grass on our hilly and thin lands during the summer, as they are now so much burnt, that a long continuance of rain will be necessary to produce any vegetable matter on them; should the turnip crop fail, most of the farmers will be more deficient of fodder the ensuing winter, than for many years past. Good-conditioned fat bullocks are scarce, and are worth 10s to 10s 6d per score; those grass-fed may be purchased at 9s 6d, but few of this sort are sufficiently fat for the butchers; fat sheep are from 5½d to 5½d per lb; lambs are worth 6d, and calves 15d per lb; fat pigs, 7s 3d per score. The clip of wools in general reported to be good.—July 12.

#### LINCOLNSHIRE.

At the close of the last month some fine showers fell in various parts highly beneficial to the turnip plants, after which ten days of extreme heat prevailed, and never in so short a period has the pasture land been so completely burned up. The wheat which came bold into ear, had proceeded towards ripening at a most rapid pace, and seemed likely to regain its lost time and be ready to cut much earlier than expected with an improved appearance of an average crop. Barley progressed in an equal degree. Oats, which are short and stunted in growth, throw out very little corn in the bell, and cannot be improved by any change of weather. Beans are still a doubtful crop, the weather having changed on St. Swtwin's day to rain, which with little intermission has fallen ever since and seems likely to continue. This will entirely alter the whole state of our prospects. The grass land having got well saturated has already much improved. The clovers will yield an abundant second crop, and the meadows an excellent latter mow. The hay in many parts is laying in the swathe, and some of the clover not carried; these will receive damage; and the harvest retarded, for so long as the corn is kept moist at the root it ripens slowly. Turnips are an universal good crop, except in a few instances where the black caterpillar (which has not appeared for near thirty years) has attacked them; on the whole we have a much improved prospect of Winter food, particularly for sheep. Since the change of weather the meat markets have improved in price, and the beasts which must have

been sold half fat will be held longer on the land, and consequently reduce the present supply. Fat sheep are plentiful, and will fill the markets for some time.

Wool is rather improving, both in price and briskness of sale; our clips in bulk are selling from 38s to 42s per tod of 28 pounds. The wheat trade has been drowsy during the hot weather; but it will receive a new impulse from the present change, and may be expected dearer if wet should continue. The present price now rules at about 50s per qr. for red, say eighteen stone the sack of 4 bushels, at 14 lbs. per stone. Oats a shilling per stone, and Beans about 40s per qr.—July 23.

#### EAST RIDING OF YORKSHIRE.

Hay-making has become general in the East Riding, and a great quantity now lies exposed to the alternating weather. The crop of grass varies exceedingly in quality and bulk; in some rich soils it is fine and abundant, in others of an opposite kind it is rather thin and light. Should we be visited with a recurrence of dry weather, much fine hay will be secured before the end of the present week. From the total absence of moisture during the month of May, the ground had become parched to aridity, and a very great deficiency in the crop of grass was anticipated, but the season has undergone a complete revolution; the plentiful rains, and a succession of warm weather, during the month of June, has been as beneficial to the crops as the most sanguine wishes of the farmers could have imagined. Never do we recollect so rapid an improvement in meadows, pastures, spring corn, &c. Barley and oats are much improved by the late rains. Beans have suffered much from the cold and unseasonable weather during the spring quarter, and are not looking well. The wheats have assumed a more promising appearance, but are thin in some places, and though still a fortnight in arrear, compared with the state of the growth of the corresponding period of the last year, yet if a few more genial showers fall, and the average temperature be warm and seasonable, the crops, which still continue backward, would advance with rapid strides, and the harvest be more early and abundant than could have been anticipated from the previous aspect of the fields. As great gain or loss depends upon successful hay-making, or the contrary, the following meteorological remarks may be useful. I would recommend farmers to remember the old proverb, "Make hay while the sun shines." If the wind should settle three or four days in the north, dry weather is an invariable concomitant, and hay may therefore be made and carried in good condition. The first quarter of the moon occurs on the 21st, and will cause rain, and probably thunder. From the 23d to the 25th, there are symptoms of thunder and hail. Towards the 26th, the wind will veer to the south. I expect a deal of moisture in the air, and several days of rain, from the 27th to the end of the month. There are several important aspects, which are *apertio portarum* to rain towards the conclusion of the month. The usual temperature of the air will be warm, even during rainy days. If it be deemed of more consequence to secure goodness of quality than to wait for increase of bulk, I would recommend farmers to attend to these hints, as it remains with agriculturists to determine whether bulk of crop spoiled, or seriously injured, can be placed in competition with even two-thirds of a full average, cut, made, and carried in perfect condition.—*Howden, July 12.*

#### NORTHUMBERLAND.

The weather since our last report has been very changeable, and unfavourable for the crops until about the middle of last month, since then we have had frequent rains and fine warm weather, which has made a great change in the appearance of the crops. The wheat crops is considered below an average onc. Oats and barley will be a full average crop. Beans and peas very promising. Turnips are looking well, and a considerable breadth are good. The new grass is a very light crop, and a good deal has been got well into pike; the old grass meadows are now growing pretty well, and if let stand a little longer may be a tolerable fair crop. Our corn markets are rather on the decline from the present prospect, as we do not consider it likely to be a late harvest from appearance, as the wheat was shot out of the ear as soon as usual, but all depends on the weather to come hereafter. The great lamb fair which was held at Yetholm on the 5th inst. was numerously attended by both buyers and sellers; the market was scarcely so brisk as expected, although high prices were obtained for some of the best lots; bred lambs were sold from 18s to 23s 6d a head, half-bred from 16s to 23s, and Cheviots from 12s to 15s a-head. The wool trade is hardly so brisk as was anticipated, very few parcels being sold that day; since then there has been a good deal of business done, and the prices nearly about last year's; the best samples, all hogs, from 1s 9d to 1s 10d per lb; half ewe, and half hog, 1s 6d to 1s 7d per lb.—*July 14.*

#### MONMOUTHSHIRE.

There perhaps never was a season when it was easier to distinguish between the good and bad farmer, by the state of his crops than the present. On highly cultivated farms, and on good land, the wheat crops have improved far more than could have been supposed possible from their backward appearance and the cold ungenial weather we had early in the spring. In general, however, the plant is thin and the straw short. Barley is also much improved, and looks on the whole, better than the wheat. Oats are in many places good, but the seed did not all germinate together, and consequently the ripening will not take place at the same time. Potatoes have partially failed, particularly on cold soils. Turnips are coming up well, and the mangel wurzel is forward and strong. We were particularly struck with the fine appearance both of this root and the turnips on Sir Charles Morgan's farm, near Newport, which is indeed, in every respect, one well deserving the attention of the agriculturists. The hay crops are better than could have been expected. On the low lands there is not much reason to complain, but dry soils afford little worth mowing.

#### GLAMORGAN.

In the rich vale lands the wheat crops wear a more promising appearance than the farmer had reason to expect in the early part of the season. Barley looks well, and we have seen some fine fields of beans. Taking the harvest throughout, however, there seems to be no hope at present of its amounting to an average crop. On the hilly farms the produce will be scanty, and there is a less breadth of wheat sown than we ever remember. The price has been high in this county, and, unless checked by an importation from Ireland, will continue so. The great activity prevailing among the works has contributed to keep up the price. The crops of hay about Cardiff, and in good situations, are not deficient; but upon the

higher lauds the grass is still uncut and very short. We may anticipate a high price next winter.

#### HADDINGTON.

Our weather continued very dry until the middle of June, when dropping showers came to the relief of our crops, which had begun to wear a stunted appearance, and would have infallibly proved a very thin one at harvest. I am happy to say they now promise a fair bulk, and with fine weather would expect a full average crop of spring corn. I think I mentioned in my last, fallow wheats were universally thin, that after green crop partakes now of the like complaint, the long drought having prevented them tillering out; they are, however, represented to be uncommonly well filled. For the last four days they have been exposed to a very high and cold wind, which has broken them a good deal down, and, where much exposed to its fury, many of the cups rendered empty. The demand on Friday was in consequence a good deal better, and price up 1s 6d per quarter upon the average. Beans have likewise been a good deal injured, from the blossom being forced off. Oats and Barley, I would say, present the most abundant crop in this quarter. The foregoing observations apply to lands of good quality: upon the poor and late soils the complaints of a defective crop are very general. The cold high winds have had a prejudicial effect upon the potatoe and turnip crops; the former still partakes of a good deal of the few past seasons, being blanky in the drills and not of vigorous growth; the latter I would hope to improve much, if to-day's rain be followed by heat, from their being late in braiding it will require very genial weather to bring them to an average crop. Hay is a miserable crop, and in a great many instances the farmers have not thought it worth the expense of harvesting, but have put on cattle to eat it upon the ground. From the rains having come on earlier in the west of Edinburgh than here, the crops have made a more remarkable improvement, and my informant there thinks every one will be a full average. Wheat, though thin upon the ground, possesses a very large square head, which will give quantity but not quality. The getting in of the hay has been a good deal interrupted by the rain. Prices of all kinds of corn have receded since my last—beans 2s, oats 4s, wheat 3s to 4s, beans and peas 2s to 3s. I think harvest cannot be nearer than a month, and with the short stock of spring corn in the farmers' hands, coupled with a scarcity of green food, there is every chance of prices regaining their position.—July 18.

#### PERTH.

The wheats here are very thinly planted, and promise nothing like an average return, except in some favoured situations; they are now pretty generally out of bloom. Barley seems a fair average in most places. Oats have a splendid appearance, and look better than I have seen them do for many years. Peas and beans are a good deal stunted, and look very indifferently. Hay is reckoned below an average, and potatoes (a crop which has much more influence on the corn trade than people imagine) has failed much, numerous fields having been ploughed up and re-planted or sown with turnips: this last article, owing to the late rains is coming on favourably, but a great deal yet depends upon the weather. To-day we have high cold winds with an appearance of more rain. Our spring grain is almost quite exhausted, in fact, it may be said we have nothing but wheat; the stocks in the rich farmers' hands pretty large, owing greatly to its unsaleable quality, having been in many instances sprouted. It is only a month ago since we were informed that your wheat crops were generally very thin on the ground over all England; now no new plants could have come up since, and I suspect you will

find when the blades fall off towards the ripening season it will be found much lighter than was imagined, at least I am certain it will be the case here. Our harvest will, I think, be eight or ten days later than last year with good weather; much less wheat was planted here last season than formerly, and from different reports I learn it was the same with you.—July 15.

#### EAST LOTHIAN.

The weather this month was generally dry and mild, at the same time frequently cold, and there has been less sunshine than usual at this season. Showers were frequent, but these being most slight, their effects were soon dissipated by the high winds which generally followed. On the 11th and 24th, however, rain fell in considerable quantities, which were of great benefit to the different crops. The sowing of turnips is completed; early sown fields of the Swedish variety on light soils, are singled out and look well, but on those of an adhesive nature, a regular braird has only been obtained since the late rains occurred. Feeding paying so well last year, has induced an extended cultivation of this esculent. Potatoes are much better than for the two preceding years, still, blanks are not unfrequent, from the sets having rotted in the ground, and in several instances there is a good deal of curl. Here, it may be stated, that where the feeding of cattle is the object for cultivating this root, a variety called Cups may be planted year after year without detriment, a respectable farmer having done so for above twenty years. Hay harvest has commenced, and, as anticipated, is a very poor crop, perhaps not equal to one-half that of last year; the late rains will prove advantageous to the after-math. The weather has favoured the working of the fallows, an operation in some instances behind, several fields having only got the winter furrow. Winter wheat came into ear about the same time as last year, has seldom been so deficient in bulk, and though on damp soils, after green crops, it may turn out productive, yet, taking this grain in general, even with favourable weather, it does not promise to be an average; Spring sown wheat got stunted by the drought, and the rains were too late for rendering it a full crop. Barley and oats, upon the whole, promise to be fair crops—the former where early sown is already in ear, and of course may be expected to yield grain containing abundance of saccharine matter, a circumstance of vast importance to brewers and distillers; several fields of oats, chiefly of the potatoe variety, are partially tulip-rooted, which must lessen their productiveness. Beans and peas are not amiss except where early sown on thin wet soils. Grain in early part of the month showed a tendency to advance; latterly, however, prices are looking down. At Gifford fair, on the 14th ult, lean stock met with a dull sale, caused no doubt by the bare state of the pastures.—June 30.

#### FIFESHIRE.

With the exception of a few mild and warm days about the middle of the month, the weather has been cold and stormy, with frequent showers, and a good many cloudy days. For about a week, from the 13th to the 19th, the crops made rapid progress, and there was a most marked improvement in their appearance: but since the 19th there have been boisterous winds and cold nights, which have greatly checked vegetation, and in all exposed situations the fields have lost much of their freshness. The wheat is now coming into ear, and some of the earliest is in bloom. It is about eight

days later than usual, and is considerably under an average breadth and bulk of straw, and cannot be less than a third below the crop of last year in quantity. The barley is generally on ordinary, and oats upon light soils a very fine crop; but both are somewhat stunted upon clays. Pease and beans have, with few exceptions, a most miserable appearance. They are very short and thin upon clays, and it is only where the ground is light that they are at all like an ordinary crop. Potatoes have again failed less or more almost everywhere; and even those that have braided have a weak stem, and there is a poor prospect of a crop. The weather has been all that could be wished for preparing the ground for turnips, and there has been a sufficiency of moisture to ensure a fine braid of all the first sown; but in consequence of the great breadth of ground prepared, and a want of manures, the sowing is still going on, and will be for some time just as manure can be procured. The hay harvest has commenced partially, and the crop is mostly light. The pastures have suffered a good deal from the cold and high winds, particularly upon elevated situations; and should the weather not get a little milder soon, there will be a want of a second crop of cutting grass. There is almost universally a fine braid of young grasses. The grain markets have experienced little alteration for the last month, and cattle of every description are rather looking up.—June 29.

#### CANADA AGRICULTURAL REPORT.

Though the Spring sowing-time was unusually late, the crops in the neighbourhood of Montreal are generally, with the exception of a part of the Wheat, as forward now as at this time last year. The Wheat, for an average of seasons, is backward, but has a healthy appearance, and if it escapes injury from vermin and disease, we may have a good crop. The circumstances of its being backward may be favorable to it, should the Wheat-fly appear this year. There will not be much of the Wheat fully in the ear this season at the period that the fly disappeared last year, and it is only at the particular time that the ear is first shot out, that the fly can do injury. It is reported, and I believe correctly, that there is not so much Wheat sown this year as usual, owing to the backwardness of the season, and the consequent unfitness of the soil to receive the seed in time, and to its failure in so many instances last year. The farmers will have no reason to regret substituting other grain, where the soil was not in good order for Wheat in reasonable time. They will find that a good crop of Oats or Barley is better and more profitable than a crop of Wheat that is below an average. The Oats and Barley sown in May on land properly prepared, have a very good appearance. From the 1st of June, the weather has been extremely favorable for planting Potatoes, and as there need not have been any interruption to the work, it is probable they will be generally finished this week. I cannot state whether the seed has been so much subject to the dry-rot this season as it was last, but I am convinced it would be prudent for all farmers who had diseased seed last year, to have changed it for what was perfectly free from disease. I remarked that Potatoes, grown from seed partially affected with dry-rot, were subject to be diseased this year. In any case a change of seed is good. The meadows look extremely well on all lands that are moderately fertile, and the crop of hay is likely to be abundant. Pastures are considerably improved, and the produce of the dairy is abundant,

and at a moderate price. Butchers' meat is high, and will probably continue so for some time to come. This circumstance, combined with the favorable appearance of the hay crop, may be an inducement to the farmers to feed cattle for the full supply of our markets. I hope we shall not be long subject to the reproach of being unable to supply our own markets with butchers' meat, with the abundant means we have of doing so. It is a peculiar feature of this season, that the wind is inclined to continue almost constantly from the north-north-east and east—an unusual circumstance in Canada, where the prevailing winds are from the west and north-west. The temperature is also inclined to be low, but notwithstanding it does not appear to have had an unfavorable influence on vegetation. If we have had a severe winter in British America, we are by no means singular in that respect. In the British Isles, and in most other European countries, they have experienced unusually severe weather last Winter and this Spring, and perhaps the inhabitants of these countries had not the same, or so good means to protect themselves from the effects of severe weather as the people of these Provinces. Though the last harvest was not very abundant, or the produce so good as usual, we have much cause of thankfulness that there is a sufficient supply of food in the country for all our people, and those strangers who come amongst us; and that there are very few of our population who have not the means, if they exert themselves, to supply themselves with what is necessary for their reasonable wants.

#### SWAN RIVER.

#### AGRICULTURAL REPORT OF THE WESTERN AUSTRALIAN AGRICULTURAL SOCIETY.

“ In estimating the quantity of wheat the produce of the present harvest, we are induced to fix it at the lowest possible average, say, twelve bushels per acre, which will give 13,878 bushels; from this, deducting 2,000 bushels for the seed for next season, we find, computing the population at 1,200, and allowing 8 bushels per head per annum, that we have provision for nearly 450½ days. The crops are generally looking well this season, though in many instances not so heavy as on some preceding years, probably from the rains having been unusually protracted, or from the lands being in some degree exhausted by a continuation of the same crops for a series of years without aid. The sheep flocks appear not to have increased in the usual proportion to the number stated for last year, probably this may be accounted for by many proprietors having culled their flocks of the aged and coarse woolled ewes, added to which there have been several severe losses sustained on the road in driving flocks to the York district, where now nearly the whole of the sheep in the Colony are depastured, and, we are happy in our ability to state, are in healthy and fine condition. We have endeavoured this season to render our wool more worthy the London market, in being particular in the washing and packing, and from its having been clipped somewhat earlier than heretofore, we trust it will be found more free from grass seeds, &c. Horn cattle in the York district, and elsewhere, having sufficient scope, continue to do well. Cows have considerably fallen in value during the year; but working bullocks continue to obtain the usual high prices, there having been no importations, many casualties, and the young stock of that description too generally going to the butcher. Horses continue to do well, and are liable to fewer diseases than,

perhaps, in any country where they are used. We have great satisfaction in observing, that roads and bridges have latterly been taken more into the consideration of the Colonial Government than hitherto. Fears are entertained that the promulgation of the Government Regulations regarding the sale of lands, may have deterred many persons from settling among us, and that it is not generally known that large quantities of land may be purchased from the settlers in the York, Hotham, and other good districts, at about 1s. per acre. We have sincere pleasure in congratulating your Excellency and ourselves on the very friendly intercourse which has been established, and, we hope, cemented, between the settlers and the Aboriginal inhabitants. They now have the utmost confidence in us, assisting as stock-keepers, &c., and are trustworthy messengers with letters and parcels to any distance.

**GENERAL AGRICULTURAL REPORT FOR JULY.**

The progress made by all branches of vegetation, since the publication of our last month's report, has been truly astonishing. Such have been the effects upon it, of both the month's thunder showers and other genial rains, aided by an occasional dense and sunny, though not to say very parching, atmosphere, that our growing corn crops, one and all, on the well farmed soils, which those who farm them have been enabled to so far escape the pressure of the present long existing unprofitable and perplexing times, as to keep them in good heart, or that were at all worthy of being sown with them, have experienced a surprising increase, both in bulk and quality of ear, pod, straw, meal, and grain. In brief, the whole of our present month's communications, both written, and verbal, from the perusal of both metropolitan and provincial publications, as well as our own observations—it having been for some years, our practice to explore as great an extent of country as time would allow us, on the eve of corn harvests—have emboldened us to fearlessly assert, that it is our firm belief, that the present year's general growth of corn—especially wheat—as also pulse and hops, will, barring atmospheric disasters, be, in the whole, considerably greater than was expected, and superior to that of last year, though in some parts, even of the fertile county of Essex as well as some of our northern and western districts, there are said to be partial deficiencies, in most parts of it. On the Isle of Thanet, however, and several other parts of East Kent, the general crop, especially of wheat, barley, and beans, promises to be abundantly great; which, too, we have been credibly informed, is the state of the generality of them, in our other southern, eastern, western, and midland, with very little deficiency in those of our northern districts. We found, on the Isle of Thanet, considerable breadths of wheat, of those soils which had been well manured with a compost of well mixed sea-weed, farm-yard, bullock-lodge, and stable dung, the parings of banks, by-roads, sides of foot paths, road dust, ashes, &c., well strawed and eared, and from five feet six to five feet eleven inches high; indeed, we saw no deficiency on the Island—nearly the whole of which we attentively explored—except a few small pieces of sickly-looking wheat, barley, and canary seed, situate, for a short distance, close to the road side, about half way between Ramsgate and Margate.

So contradictory are accounts, relative to this year's growth of fruit—some asserting, its promise is good, others, but indifferent, that we can say but little about it, further than there appeared to be a fair growth of

apples, pears, and cherries, and that they are selling at moderate prices.

As to the grass-fattened, or, rather, *grass-finished*, sheep and beasts, these have, in the course of the month, undergone an equal degree of improvement with the corn and pulse crops, pasture herbage, seed grasses, winter tares, &c.; and every description of live farm stock is described as being generally healthy and doing well. Many of the Scots, Herefords, and Devons, and most of the Lincolnshire and Leicestershire sheep that have reached both Smithfield and Islington markets, in the course of the month, have been, the backwardness of the Spring taken into consideration, unusually prime.

The harvest, the commencement of which has been retarded, by the recent rains, has only, we believe, as yet, but very partially commenced, on rye, winter barley, and peas; but it is expected to become pretty general, on these and wheat, should the weather be fine and ripening, in a very few days. The hay harvest is said to have been productive of a good crop, of both meadow and seed hay.

The only political murmurings we have heard of, among farmers, in the course of the month, have been at the clearly manifested inability, of both our Agricultural Committees, to discuss the causes of, and point out remedies for, our long existing agricultural grievances; the only political amusements, the fate of the rapidly falling off Central Agricultural Association, and the insignificance of the squeaking trumpeter, that has usurped the appellation of *The Agriculturist!*

We regret, however, that it is our painful task to assert, that, from an appeal to the benevolent, advertised in last Monday's impression of The Mark Lane Express, that the almost entire crops of a farm, occupied by a Mr. William Stanford, of Whaddon, Wilts, consisting of 86 acres of wheat, 50 acres of barley, 57 acres of oats, 14 acres of vetches, and the same breadth of turnips, the whole estimated at £1,400, and wholly uninsured, were destroyed, by a terrific hail and thunder storm, on the 5th inst. Mr. William Stanford appears to have also lost 1,360 sheep, by rot, valued at £2,500, about four years ago.

In this month's markets and fairs, for the sale of both live and dead farm produce, prices have been, of every thing, with the exception of those of wool—which have remained about stationary—somewhat, but not very considerably, drooping.—Those for the sale of poultry and dairy produce, in London, being said to be rendered dull, by the absence of families from town.

The following is a retrospect of the prices and supplies of the different kinds of fat stock exhibited for sale, in Smithfield and Islington Cattle Markets, since the 20th of June.

SUPPLIES.					
SMITHFIELD.					
	Beasts.	Sheep & Lambs.	Calves.	Pigs.	
June 24. . .	875	9250	420	700	
— 27. . .	2450	21200	375	350	
July 1. . .	596	8500	364	520	
— 4. . .	4620	21000	334	410	
— 8. . .	425	8150	280	350	
— 11. . .	2385	22000	375	420	
— 15. . .	610	8600	320	354	
— 18. . .	2510	24200	335	380	
— 22. . .	685	10950	350	340	
— 25. . .	2385	25100	290	370	
Total . .	15541	158750	3423	4374	
Supply of preceding month. }	11427	143100	2390	3010	

ISLINGTON.				
	Beasts.	Sheep & Lambs.	Calves.	Pigs.
June 24.	69	766	3	--
— 27.	274	2,439	12	--
July 1.	57	632	--	--
— 4.	302	2,387	13	--
— 8.	92	609	5	--
— 11.	327	1,769	7	--
— 15.	116	774	5	--
— 18.	364	2,098	20	--
— 22.	101	586	4	--
— 25.	315	2,317	10	6
Total . . . . .	2,014	15,497	79	6
Supply of preceding month. } 2,488	11,294	48	--	--

It appears, by the above statements, that the supplies, at Smithfield, have embraced, this month, 4,114 beasts, 15,650 sheep and lambs, 1,033 calves, and 1,364 pigs more than those of the preceding month. At Islington, the supplies of the present month have consisted of 474 beasts less, 4,203 sheep and lambs, 31 calves, and 6 pigs more, than those of that which immediately preceded it.

About 4,230 of the beasts, forming the present month's supplies, of the above markets, came from our northern grazing districts, up the St. Alban's road; about 4,305 up the other northern roads; about 1,810 from the western and midland districts: about 1,430 from Norfolk, Suffolk, Essex, and Cambridgeshire: about 1,884, by sea, from Scotland; about 300 from Kent, Sussex, and Surrey; and most of the remainder, including about 150 lusty town's-end cows, from the marshes, &c., near to, and within a few miles of, London.

As the numbers of lambs are given suppositiously, and we cannot, on account of their being included in the numbers of sheep, pledge ourselves to be accurate, in stating them separately, we have deemed it proper so far to alter the form of our report, to state them collectively.—Lambs have, however, this month, fully equalled, if not considerably exceeded, the number of sheep.

PRICES.—SMITHFIELD.

	June 24.				July 25.						
	s.	d.	s.	d.	s.	d.	s.	d.			
Inferior Beef . . . .	2	8	to	3	0	..	2	6	to	2	10
Middling, do. . . .	3	2	to	3	6	..	3	0	to	3	4
Prime, do. . . . .	4	0	to	4	4	..	3	10	to	4	6
Inferior Mutton . .	3	2	to	3	6	..	3	0	to	3	2
Middling, do. . . .	3	8	to	4	0	..	3	4	to	3	8
Prime, ditto, . . . .	4	6	to	4	10	..	4	2	to	4	8
Lamb . . . . .	4	10	to	6	0	..	4	0	to	5	0
Veal . . . . .	4	0	to	5	0	..	4	0	to	4	10
Pork . . . . .	3	6	to	4	8	..	3	6	to	4	4

By the foregoing quotations, it appears that most kinds of meat were somewhat cheaper on the 25th of July, than the 24th of June. In the prices of Smithfield and Islington markets there has been little variation, with the exception of the inferior kinds of meat, at Smithfield, being lower than those at Islington, at which, but little of it makes its appearance.

We were, to-day, Monday, July 25, credibly informed, in Smithfield, that mutton sold, on Saturday last, in Newgate market, at from 2d to 4d per 8lbs more than lamb, a circumstance that, in our 39 years' Smithfield experience, we do not recollect to have before witnessed.

The sheep and beasts have been, in both the above markets, throughout the month, of fair average quality; whilst a considerable number of those exhibited

at Islington have been, for the time of year, unusually prime.

Here follows our comparison of supplies and prices of fat stock exhibited in Smithfield on Monday, July 27, 1835, and Monday, July 25, 1836.

	July 27, 1835.		July 25, 1836.	
	s. d.	s. d.	s. d.	s. d.
Coarse and inferior beasts . . . . .	2	0 to 2	2	6 to 2
Second quality do. . . . .	2	8 to 3	4	10 to 3
Prime large oxen . . . . .	3	6 to 3	8	8 to 4
Prime Scots, &c. . . . .	3	8 to 4	0	4 to 2
Coarse and inferior sheep . . . . .	2	2 to 2	4	3 to 3
Second quality do. . . . .	2	6 to 2	10	3 to 4
Prime coarse-woolled sheep . . . . .	3	4 to 3	6	3 to 4
Prime South Downs do . . . . .	3	8 to 4	0	4 to 4
Lambs . . . . .	4	4 to 5	0	4 to 5
Large coarse calves . . . . .	3	0 to 3	6	4 to 4
Prime small do. . . . .	3	8 to 4	0	4 to 10
Large hogs . . . . .	3	0 to 3	4	3 to 3
Neat small porkers . . . . .	3	6 to 3	10	4 to 4

SUPPLIES.

	July 27, 1835.	July 25, 1836.
Beasts . . . . .	2,916	2,385
Sheep and lambs . . . . .	29,240	25,100
Calves . . . . .	240	290
Pigs . . . . .	263	370

It will be seen, by the above statement, that beef was from 4d to 6d; mutton 6d to 10d; veal 10d to 1s; and pork 6d per 8lbs dearer; lamb 4d per 8lbs cheaper, on Monday, July 25, 1836, than on Monday, July 27, 1835; whilst the supply of the former comprised 531 beasts, and 4,140 sheep and lambs less, 50 calves, and 87 pigs more than that of the latter, market day.

Nearly, or quite, a moiety of the present month's supplies, both in Smithfield and Islington markets, have been comprised of short horns; the remainder of Herefords, Devons, Scots, and Welsh runts.—Those of sheep and lambs, in about the same proportion of old and new Leicesters and Lincolns, South Downs, Kents, and Kentish half-breds, horned and polled Norfolks—chiefly the latter—Dorsets, and sundry other breeds and crosses.

From Scotland, there has been a considerable decrease, in the supplies, of both live and slaughtered beasts: but an increase of sheep—the latter having amounted, in the course of the month, to about 2,500.

The genial showers of this month, though they have retarded the commencement of the harvest, have greatly augmented the promise of an abundant general crop.—As to when the harvest will become general, this must be left to the caprice of the watery Saint.

STATISTICS.—In the article "France," of the

*Dictionnaire Geographique Universel*, now publishing in Paris, by a geographical society, the following statement is given of the capital of the French soil and of the revenues of the Empire. The arable lands, at a valuation of 30 francs the hectare, are worth 13,690,800,000 francs; the woods, vineyards, meadows, and other lands, 2,828,800,000; ponds and marshes, 31,920,000; rustic buildings, 3,000,000,000; cattle, valued at the lowest price, 16,703,941,676; poultry, 51,600,000 head, at 1 franc, 51,600,000; swine, 3,900,000 head, at 40 francs, 156,000,000; asses, 2,400,000 head, at 25 francs 60,000,000; farming utensils, 3,000,000,000; total, 39,522,061,676 francs. To this may be added the annual receipts—from manufactures, 1,820,102,000; agriculture, 4,678,708,000; colonies, 40,380,000; foreign countries, 3,46,020,000; in warehouse, 52,000,000; total, 6,937,210,000 francs. The produce of the taxes of every class is 924,410,000 francs.

## AGRICULTURAL INTELLIGENCE, FAIRS, &amp;c.

**BRISTOL ANNUAL CATTLE MARKET.**—On Thursday last this mart was more largely supplied with poor stock, principally Irish, than on any previous occasion, but a great number were driven away unsold. Beef fetched from 55s to 60s per cwt; Mutton, 5½d to 6d per lb; and Pork from 7s to 8s 6d per score. There were not many good horses exhibited. Cart Colts were in great demand, and sold at high prices.

At **SHERBORNE FAIR** there was about the usual supply of Sheep and Beasts, but it was not equal to last year's exhibition. Horned lambs sold from 11s to 15s a head; Downs from 14s to 18s; best Wethers, those in high condition, fetched from 32s to 36s. There was not much demand for the poorer sort of Sheep, and a great many of this description were driven away unsold. Prime beef sold readily at from 9s to 10s per score. Store Beasts were not in demand, in consequence of the scarcity of feed.

**WARWICK FAIR** was thinly attended by buyers, in consequence of a Fair at Southam being held on the same day. The present scarcity of keep induced sellers to bring many beasts and sheep not over fat, but a considerable number were driven away unsold. The prices were, for Beef, 5½d to 6½d; Mutton, 5½d to 6½d; Lamb, 7d to 7½d. A great number of Milch Cows, but few buyers.

**GLASTONBURY Monthly Cattle and Cheese Market** took place on Monday the 18th inst. and presented an excellent supply of fat stock and cheese, which met a ready sale. It is now placed beyond a doubt that this market will take its stand among the leading markets of the neighbourhood; for although Sherbone and Wedmore fairs were held on the same day, yet the attendance and interest excited by this central and very advantageous market were not in the least abated. Much praise is due to Mr. Richard Say, spirit merchant of this town, for the indefatigable exertions he has made, and the unwearied interest he has taken in the prosperity of the market; and the importance attached to the establishment of this mart by the neighbouring agriculturists, breeders of stock, dealers, and the public generally, must be highly flattering to all those gentlemen who have aided, by their influence and patronage, to promote its formation. The next market will be on Monday, the 15th August.

**DUNSE FAIR.**—At this fair, there was a good show of bred and half-bred lambs, the demand for which was rather dull at the commencement of the market, but the whole were afterwards disposed of. Bred wether lambs may be quoted at from 20s to 22s, half bred from 15s to 18s 6d.

**RINK FAIR.**—The show of lambs at this market was very small, only a few lots from the Borders having been brought forward, which met with slow sale at a small reduction in prices from the same market last year. Good lots may be quoted at from 9s 9d to 11s 3d, inferior in proportion. This being a principal market for the sale of Cheviot wool, there was a numerous attendance of buyers consisting almost exclusively, however, of Scotch manufacturers; the business done before the close of the market was very considerable, at a rise of about 4s per stone on last year's prices. The best lots of White Cheviot brought from 35s to 36s 6d; inferior from 33s upwards; laid, best, 25s to 27s 6d; inferior from 23s upwards, per stone of 24lbs.

At **KENNINGHALL FAIR** there was a large supply of lambs, which met a dull sale at 1s to 2s per head below the late prices, varying from 12s to 22s each.

**SHREWSBURY FAIR** was abundantly supplied with sheep. Many lots were not in condition for the butcher, having only had their lambs recently taken

from them; these were sold with difficulty. Prime small sheep were worth nearly 6d per lb. Others little more than 5d, and stores were nearly unsaleable. The supply of fatted cattle was very moderate; prices ranging from 5d to 5½d per lb. Stores were parted with very slowly, and at low prices. Pigs did not sell so well as at former fairs. In the cheese marts, a very considerable quantity was pitched, upwards of twenty tons being sold at the New Market in Howard-street, and great quantities at the Circus, and other places. New skims, 34s to 38s per cwt; middle dairies, 45s to 50s, best new, 60s per cwt. Some lots of prime old were held for 75s to 78s per cwt, at the Howard-street Market, and one lot was put on the Canal there at 81s. A number of lots of butter were offered at the Circus, and in the morning a few were sold at about 11d per lb; but later in the day 10d per lb was the price. Bacon, if dry, brought 7½d per lb, if damp, considerably lower; and hams were sold at 8d.

**ASKRIGG FAIR** took place on the 11th inst. There was a great show of sheep—nearly 14,000—and almost all of them were sold at prices from 9d to 1s per head lower than last year. The cattle exposed were more numerous than usual at this fair. The sale was dull—prices were lower by 10s a-head than at Stagshawbank.

**AYR MIDSUMMER FAIR.**—There could not be fewer cattle than from 1,500 to 2,000 head, being a greater supply than was ever brought forward on any former year. The greater portion were young Highland beasts; but there was also several lots of young Ayrshire cattle, for all of which there was a brisk demand, the market being well attended by dealers from a distance, several from Dumfriesshire, who came to take stock to the south. Two-year-old Ayrshire stots sold from 4l 10s to 4l 15s. Two-year-old Highland stots from 3l 10s to 3l 15s; six-quarter-olds, very small in bone, from 2l 2s to 2l 5s. Yearlings, same description, from 23s to 30s, as in quality. A superior lot of three-year-old Highland queys from Saddle, near Campbellton, brought 5l 5s, and for the best lot in the market of this kind, which were in good condition for this season of the year, the price was from five guineas to 5l 10s. For the best work horses prices varied from 32l to 35l. Good animals were bought at from 24l to 30l; and inferior or poor conditioned cattle from 20l downwards.

**INVERNESS SHEEP AND WOOL MARKET.**—The sellers at the Perth Wool Fair will not have cause to regret having disposed of their stock here, in preference to waiting the result of the Inverness market, as the prices obtained here were fully as high, and in some instances higher, than those given in the north on Friday last.—Last year the principal business was done late on Saturday, and much of it on Monday. It was then remarked that every year the buyer and seller were later in coming to terms—and this year is no exception. We give them in the meantime the average rates as they can yet be best ascertained. The purchasers were numerous, and evidently disposed to buy, although very reluctant to come forward. Amongst them we observed Mr. Lockwood, and Mr. Brooks, Huddersfield; Mr. Maxwell, and Mr. Boyd, Liverpool; Mr. Hall, Dornoch; Mr. Cameron, Corycnochillie; Mr. Macdonald, Drumintorie; Mr. Whyte, Angus-shire; Mr. Donaldson, Glasgow; Mr. Hadden, Aberdeen; Mr. Clark, from England; Mr. MacLaren, Callender; Mr. John Stewart, Mr. Turnbull, Inverness; P. Sellar, Esq., Morvich; Gabriel Reid, Esq., Gordonbush; Major Gilchrist, Opisdale; Mr. Clark, Erribol; Hugh Macaskill, Esq., of Tallisker A. McKinnon, Cory; Dr. McKinnon, Kyle; Edward

Gibbon, Esq., Dunvegan; Captain Ross, Kilfinan; Mr. Mackay, Kcoldale; Mr. M'Arthur, A. M'Donald, of Barrisdale; Colm Munro, Esq., Dingwall; H. I. Cameron, Esq., banker, do; W. Murray, Esq., banker, Tain; A. Gair, Esq., banker, do; W. Murray, Esq., of Westmoreland; P. Brown, Linkwood; Mr. Young, Maryhill.

SHEEP.

	s.	d.	s.	d.
Cheviot Wethers from.....	22	0	to	30 0
do. Lambs do.....	10	0	to	14 0
do. Ewes do.....	13	0	to	20 0
Cross Ewe Lambs.....	9	0	to	10 0
do. Wether do.....	10	6	to	12 6
Blackfaced Wethers.....	15	0	to	20 0
do. Hogs.....	11	6	to	14 0
do. Lambs.....	8	6	to	11 0
do. Ewes.....	9	0	to	11 0

WOOL.

	s.	d.	s.	d.
Laid Cheviot Washed Wool, of 3lb } per stone.....	23	0	to	25 0
Blackfaced Wool, per double stone.....	23	0	to	24 0
Cross Wool, Laid Washed.....	15	0	to	17 0
do. Unwashed.....	13	0	to	15 6

The Old Monday Market in Devizes, which for a long series of years has been suspended, was revived on Monday last. There was a fair supply of beasts, pigs, &c., which sold freely; attendance by dealers numerous; also a good supply of vegetables and fruit.—Bacon sold at 7d per lb; Cheese from 50s to 70s per cwt. The ordinary at the Cross Keys was respectably attended.—In consequence of Melksham Market falling on the same day, the next Market will be held on Monday the 25th inst, and every succeeding fortnight.

**SOUTH HAMS.**—Hay harvest is nearly finished in the earlier parts of this district. Most of the crops, particularly of clover and other artificial grasses, have been slight, but the greater part has been saved in excellent condition. Much of the Wheat is thin on the ground, but the kerning is generally good. At the late fairs and markets, the price of cattle has declined, and the sales have been dull; sheep have obtained a better sale. Wool is 12d per pound. The "weeping Saint" has shed an abundance of tears, to the joy of many; for the rain which fell on Friday (St. Swithin's day) came opportunely for the turnips, potatoes, after grass, &c. *Plymouth Journal.*

**THE HAY CROPS.**—Within a circuit of several miles round Maidstone, the hay has never been known to have been got in better. The cinquefoil, clover, and trefoil, have produced heavily; and the grass, although not quite equal to the latter, except in good soils, is yet a good average crop.—*Maidstone Gazette.*

**THE CORN CROPS.**—The wheat in the strong grounds is now in full ear, long in the straw, and looking well. In the weak grounds it is "spindly and delicate." The lent corn, is, however, much suffering for want of rain. A few showers, if they arrive early, will be of great service, particularly to the backward pieces.—*Ibid.*

We have had copious rains during the last week, with intervening days of warmth, under the influence of which the crops are making great progress. Wheat has passed the flowering stage unharmed, and barley has been for some time in ear, and oats rapidly following. The weather has been remarkably favourable for the green crops; as the shaws enlarge, the occasional blanks which were visible in some potatoe fields, disappear, and the second planting seems to have vegetated well. It is now ascertained that the fears as to this crop have been greatly over-rated, and that although there will be some instances of individual loss, the present appearance of the crop, and the great breadth under it, promise an abundant supply for the next season. Turnips generally look well, although there are individual complaints of great destruction from a new

enemy, the linnet,—and the aftermath of clover promises a good second cutting.—*Perth Courier.*

**STIRLING.**—During the first week of the last fortnight there was a good deal of rain and cold winds. Nothing, however, could be more favourable than the weather for the last week—soaking thunder showers followed by warmth and sunshine. If the crops are not all that the farmer could wish, they are at least far beyond what he could have anticipated six or seven weeks ago. The fields have now arrived at that state that a pretty fair estimate might be made of their probable return, were the harvest weather to prove favourable. Wheat promises to prove excellent in quality, but, with few exceptions, deficient in quantity. It is thin and short both in head and straw. Here and there may be seen pretty good fields of beans, but they are also rather unpromising, if we include the whole of the carse lands. Oats may be considered everywhere as promising more than an average; and barley bids fair to equal it. Haymaking has become general, and the weather, on which this produce so much depends, promises to be favourable. There are fields on the carse lands, and many on the dryfield lands, which will prove an average, but as a whole the crop will be deficient. The complaint, which prevailed some time ago, of the failure of the potatoe seed was well founded. In many places the blanks had to be replanted; still the potatoe crop never was in a more promising condition. The late warm rains have everywhere given the plant a vigorous, healthy appearance, and there is every reason to hope that this important crop will prove abundant.—*Stirling Journal.*

**FLIES ON SHEEP.**—It may be useful to some of your readers to be informed of an inexpensive preparation, as a protection against the Fly in Sheep. The following composition has been successfully used for many years with a very considerable flock, and I can therefore recommend it with confidence to your agricultural readers:—Hog's lard or soft grease, 2 lbs.; Flour of sulphur, 1 lb.; Oil of amber,  $\frac{1}{2}$  pint; to be mixed into an ointment. A quantity about the size of a walnut has been found, by experience, quite enough for each animal, and it may be smeared over the whole surface either with the hand or a common brush.—Either common tar, oil of tar, or coal tar, which is now produced in such large quantities at the different gas works, may perhaps be found to be a cheaper and efficient substitute for the oil of amber, which is occasionally rather expensive.—Other animals may be effectually protected from the annoyance of flies by this ointment.

Communications from Scotland show the spirit of laudable enterprise to be awake there. A patriotic hope is entertained that valuable additions are likely to be made to the produce of her soil. It was mentioned at a dinner of the Highland and Agricultural Society of Scotland last week, by Professor Graham, that the Hon. William Leeson Melville, now resident at Calcutta, had transmitted from the higher countries of India three parcels of seeds of important plants: some of these have already been deposited in the earth, and it is fondly anticipated that the soil and climate will not prove ungenerous. The *Deodar* pine is among them. This tree grows without branches to the height of one hundred and fifty feet, and to thirty feet in circumference. The wood is valuable for its durability, having been found uninjured by the "*fuga temporum*" in temples which had stood two centuries at the least. On the same occasion it was mentioned that seeds of the *pinus maritima major*, a tree cultivated by desire of the French Government in the *Landes* and *Sables* near Bordeaux, to restrain the land flood, had been transmitted by the factor of Viscount Palmerston, at his lordship's desire, to the Horticultural and Highland Societies. A plan too has been transmitted from Mr. Strong, of Leith, for supplying the Edinburgh market with fish from the deep sea, by means of well-laid smacks. The undertakings thus suggested, and especially the last, it is generally believed, will not give increased force to the old saw, "Let well alone." Other projects not less useful in



themselves promise additional employment to the poor, and general benefit to the country.

**LONDON CATTLE MARKET.**—We have the best authority for saying, that of late the shipping of cattle and other live stock to the London market, has been a losing trade to those who have for a considerable time been the means of keeping up our markets, by the extraordinary high prices paid in purchasing for exportation. This business has, we fear, been driven beyond its proper limits, and the consequence is, that beef and mutton, as well as live stock, are at this moment selling at prices as low as in the Edinburgh market; and owing to this reverse, cattle experienced a fall this morning of fully 10 per cent; sheep and lambs as much, and a good many unsold for want of buyers. Some lots of cattle bought some time since with a view to the London market, in all probability must be sold at home at a considerable sacrifice. For the present, therefore, exportation from this quarter is almost at a stand still.—*Edinburgh Weekly Journal July 6.*

**HINTS TO AMATEUR GARDENERS.**—The late genial showers must not fall in vain, but instant advantage must be taken by the watchful planter in setting out in harmonious groups his stores of biennials for next year's flowering, such as wall-flowers, hollyhocks, Canterbury bells, &c., giving to each plant a foot square; general crops of winter vegetables should now be finished planting and sowing. To render the flower garden gay in the autumn sow in masses, or around baskets or the edges of the flower borders, candy tuft, Virginian stock, Venus looking-glass, sweet alysum, &c., which will succeed their earlier brethren and glad the eye in sombre November. The last stock of dahlias should now be planted, and amateurs, who aspire to floral honours, must watch well the opening blossoms of their seedlings to select one whose beauties will be the bark, in which their future immortality may safely ride. The rain is more than favourable to laying the summer shoots of dwarf roses, by which you in time get them of various hues, mingled in large masses; the ground being closely covered, in imitation of dame nature, instead of the poor starling little bushes, hardly showing their blossoms among their loftier neighbours, as if ashamed of their sickly growth. What is more beautiful on the edge of a lawn, or grassy glade, than a magnificent mass of rose blossoms enriching the scene, and lighting up a back ground of dark holly, or laurel.

**TRADE OF SALONICA.**—Salonica exports wool cotton, silk, tobacco, grain, sesamum, linseed, hempseed, harekins, lambskins, timber, staves, beeswax, nuts, and hemp.

**WOOL.**—The wool is inferior to the wools of Roumelia, and does not render above 25 per cent. of first quality; it is likewise less cleanly. The Roumeliot wools only leave a loss of weight of  $3\frac{1}{2}$  to 4 per cent., whereas those exported from Salonica leave  $7\frac{1}{2}$  to 8 per cent. These wools are purchased, for the most part, for Austria and France. None of late years has been sent to England. When there is a demand for America (that is, since the alteration in the American tariff,) they bring to Salonica wools to cost under eight cents., by mixing them with those of the Negropont, selling the finer qualities, and thereby bringing the seconds to cost under the American rate; this, however, is at variance with the oath required upon its entry into American ports. Upon washing the Salonica wool, there is a loss of 45 per cent. The quantity yearly brought to market is about 1,000,000 lbs.

*The Sussex Advertiser* says—"Some erroneous statements having been made as to the reduction of duties on the importation of wool into France, for the information of our agricultural readers, we insert the following copy of a letter upon the subject, received by G. Heathcote, Esq., M.P.:

"Copy of a letter from G. R. Porter, of the Statistical Department, Whitehall, July, 1836.

"Sir,—I am directed by Mr. Poulett Thomson to inform you that the duty levied upon the importation of wool into France, which previous to September, 1834,

had been 33 per cent. on the value, was recently reduced to 22 per cent., and that this reduction has received the sanction of the Legislative Chambers.

(Signed) "G. R. PORTER."

"For Gilbert Heathcote, Esq., M.P."

**DRAWBACK ON SOAP.**—The amount paid for drawback on soap used in the worsted trade of Leeds, was, in 1831, 11,475*l* 9*s*; in 1832, 11,484*l* 1*s* 7*d*; in 1833, 12,179*l* 5*s* 9*d*; in 1834, 6,469*l* 8*s* 11*d*; and in 1835, 6,018*l* 10*s* 11*d*. The quantity of sheep and lambs' wool washed with the same was, in 1831, 18,414,883 lbs; of woollen and worsted yarn, 1,662,078 lbs; of worsted stuff, 302,069 pieces; and of pieces partly composed of worsted, 11,576. In 1832, wools, 18,536,656 lbs; yarns, 1,857,268 lbs; stuffs, 350,710 pieces; partly worsted, 8,960 pieces. In 1833, wools, 19,064,502 lbs; yarns, 1,998,354 lbs; stuffs, 346,421 pieces; partly worsted, 12,588 pieces. In 1834, wools, 19,889,872 lbs; yarns, 1,709,673 lbs; stuffs, 259,815 pieces; partly worsted, 11,550. In 1835, wools, 19,905,452 lbs; yarns, 1,305,235 lbs; stuffs, 491,650 pieces; partly worsted, 10,695 pieces. The amount paid for drawback on soap used in the worsted trade of Halifax in 1831, was 7487*l* 18*s* 8*d*; in 1832, 7190*l* 9*s* 6*d*; in 1833, 6440*l* 11*s*; in 1834, 3,727*l* 15*s* 5*d*; and in 1835, 3,957*l* 12*s*. The quantity of wool washed with the same in 1831, was 17,971,000 lbs; of yarn, 3,152 lbs; of stuffs, 364 pieces. In 1832, of wool, 17,251,400 lbs; of yarn, 2,867 lbs; of stuffs, 400. In 1833, of wool, 11,562,109 lbs; of yarn, 2,888 lbs; of stuffs, 240. In 1834, of wool, 17,863,200 lbs; of yarn, 10,000 lbs; of stuffs, 616 pieces. In 1835, of wool, 18,994,800 lbs; of yarn, 6,240 lbs; of stuffs, 712.

## REVIEW OF THE HOP TRADE.

JULY 1836.

At the end of last month the hop market grew very heavy, and prices continued to fall, in consequence of the weather proving so favorable for the coming crop, and the district reports being so flattering for the time of year. The estimated duty stood at 250*m*. for some time, about the middle of this month—since then it has receded, and is now quoted at 235*m*.; most of the growers deem this too high, as the bine has not branched out sufficient at present, to show much burr. For the last week we have had showery weather, which was greatly wanted by the backward bine, and if this is succeeded by warm growing nights, a good crop may be looked for: should wet and cold follow, the growth may be but very partial as the mould is likely to increase, and some seasons that destructive ravages, taking the plant in burr, has materially reduced the crop, as well as spoiled the quality. There is a little more business doing on the market, the principal inducement being the lowness of prices, as they are quoted about 10 per cent. lower than in June, and the possibility of the wet and cold injuring the coming crop.

### PRESENT PRICES.

East Kent Pockets, good, . . . . .	80s to 100s
Bags . . . . .	70s — 90s
Mid Kent Pockets . . . . .	55s — 85s
Bags . . . . .	60s — 80s
Weald of Kent Pockets . . . . .	60s — 75s
Sussex Pockets . . . . .	60s — 72s
Yearlings . . . . .	40s — 56s
Old olds . . . . .	18s — 42s

[N.B. We are promised the weekly estimate of duty since the year 1802, showing the weekly variation up to the present time which we propose giving in our next; this will prove interesting to grower, consumer, and speculator.]

## REVIEW OF THE CORN TRADE DURING THE MONTH OF JULY.

The accounts received from the southern and western districts of England concur in representing a considerable disparity in the growth of all kinds of grain. Wheat, on strong retentive soils and well-cultivated farms, has with the favourable change of the weather so rapidly improved that a moderate crop is now anticipated, but on the light, weak, cold lands the plant stands thin, and the deficiency is estimated at least one-fifth of the produce of last season, and the straw generally short, and a diminished breadth sown. Barley is irregular and thin, and will not yield an average, except in favoured situations. Oats are short in the straw, and will be below an average. In the eastern part of the country wheat has surprisingly evinced the powerful influence that sunny days and genial nights can communicate to vegetation, and the blooming of the plant has transpired under a combination of the most favourable circumstances; the ears are in many instances large and full, but the falling off on the poorer and more inferior lands will reduce the aggregate yield below the growth of last year; particularizing the three larger counties, it may be stated that in Suffolk wheat will be less heavy and bulky in the straw than last year, and the return less productive, and that though the fields present to the passer-by a favourable aspect, yet they will not bear close inspection, being uneven and thin, and the quantity sown less than last season. Barley promises a moderate average, and an increased breadth of land cultivated. In Norfolk wheat will be defective, and by some calculated as likely to prove two or three combs per acre less than the growth of last season. Barley, for the most part, stout and bulky. In Lincolnshire the rains have restored the healthy green of the growing crops, but the wheat, from the excessive change in the temperature, has broken out into ear upon the warm soils rather prematurely before a sufficient length of straw has been produced, portending diminished bulk in corn and straw, and the same remarks are applicable to oats. In the northern counties wheat is reported as deficient in straw, and short in ear, except on the highly cultivated lands, and in favourable situations, otherwise it is thin and patchy. The breadth of barley is considerably increased, but being generally thin and short is reckoned as likely to yield much below an average for the quantity grown. Oats look tolerably well, without indicating abundance. The continuance of warm dry weather rendered the approach of St. Swithin on the 15th of some little interest to the trade, as the *prerogative* which the Saint enjoyed in the

superstition of the *ninth* century has been handed down to the present era of the *nineteenth*: if, therefore, augury "has not been taught in vain" this canonized Bishop will shed his watery influence for the next forty days, and if his favours are not showered too copiously much benefit will be derived by the farmer from his humid prescriptive right. The heavy rains we have since experienced have refreshed the earth, and being accompanied with dull cloudy weather have had the effect of improving, not only the quality of the grain in wheat, by checking the premature ripening of the ear occasioned by the forcing heat of the sun, but has given renewed life to the vegetative powers of barley, and especially oats, for the fate of which well-grounded fears were beginning to be sustained; and the anticipated produce of beans and peas is likely to be secured by this timely supply of moisture, but the period is now becoming critical, that the strong wind and rain with which we have been visited should cease and the weather remain as warm and bright as it is at present indicated. In early districts reaping is about to commence, so that the harvest will not be more than a week or ten days later than last year; the cutting of wheat having commenced in the more southern districts in 1835 between the 20th and 27th of July, and on the day of the latter date the first samples of new wheat appeared in Mark Lane.

In Scotland the weather has been very propitious for the growing crops of wheat, and though barely an average produce is looked forward to, yet the improvement has been greater than could have been anticipated. Barley and oats were much in want of rain, and by its timely supply, have been considerably benefited though barley is still reckoned a thin crop, but oats in many districts will prove an average growth.

In Ireland the weather is represented as most favourable and conducive to the growth of all grain, alternately sunshine and rain prevailing; and though no doubt exists that the breadth of land sown with wheat is much diminished, yet the produce is likely to yield a moderate average. Barley and oats are progressing rapidly, and without being luxuriant have assumed appearances for the most part satisfactory to the growers. Flax is in bloom, but owing to the previous drought is extremely short in the stem, and the return therefore must be proportionately diminished.

During the first three weeks of the past month, the fineness of the weather checked speculative feeling, and millers were only inclined to purchase

for their immediate consumption; and though the supplies were moderate, yet prices receded 2s to 3s per qr., and the trade continued to rule languid and dull; but on a succession of heavy rains and wind, and the generally unsettled character of the weather, farmers were unwilling to send their stocks to market, and speculators withholding their granaried samples, reduced the amount of arrivals, which with an improved disposition to purchase, caused the currencies to advance fully 2s. per qr.; should, however, the favourable appearances continue as to temperature, a depression rather than additional is likely to ensue until the crop is partially secured, and some idea can be formed of the result of the crop: few, who have old Wheat on hand, being inclined to quit their stock till the casualties attending the harvest in this county are past.

The dull state of the home market, and few opportunities being offered for shipment to foreign parts, has rendered bonded wheat less animated, and the only sales reported are some good Danzig at 36s, and Mecklenburg, at 30s.—Of late, however, the unfavourable accounts of the crops of Wheat in the United States, particularly in the southern districts, has caused rather more enquiry, and prices are fully supported. At Liverpool considerable purchases have been made on speculation with the ulterior view of shipment to America, at prices varying from 3s 9d to 4s 6d per 70lbs.

The heat of the weather created in the minds of holders of flour considerable anxiety to sell, as the quality was being materially affected, and bakers, on the other hand, bought sparingly, fearful of the condition of the article; the trade, therefore, remained extremely dull, and ship qualities experienced a slow sale at a decline of 1s per sack; but since the alteration in the weather, and the advance in wheat, the currencies have fully regained their previous rates, and have in some instances been rather exceeded.

Bonded flour has been in request for shipment, principally to the West Indies, Cape of Good Hope, Mauritius, and Quebec. Prices have remained steady at 22s to 23s for Danzig marks; *Witt's* brands commanding a preference. At Liverpool higher prices have been obtained, Hamburg and Danzig qualities realising 25s 6d to 26s per bbl. and sour, 20s to 21s.

The only alterations in the duties have been a decline of 1s 6d on rye and peas, making the duty on the latter article 8s; this decline has been occasioned by the aggregate averages having rather unexpectedly advanced to 41s and a fraction, the week ending the 8th of July being 2s higher than the foregoing, since which, the aggregate of the six weeks averaged above 41s; this sudden rise, on inspection, appears to have arisen from the Lancashire averages, that is, those of Manchester and Liverpool, which have varied the two last weeks from 41s 4d to 45s 7d, on a quantity sold of 1319 qrs, the total amount returned as sold in all the

towns of England and Wales not exceeding 2068 qrs, leaving for Middlesex and all the other counties the disposal only of 749 qrs; the average in London being 35s 1d to 36s 6d. The *rum*, therefore, on the article in Lancashire, must have been almost *unprecedented*, at least, for the consumption, as the warmth of the weather would check the usual demand; but there has arisen, it is stated, a singular *propensity* for the purchase of *blue peas*, and which being short in supply, holders have become anxious that they should be replaced by foreign qualities of white.

Until towards the close of the month the receipts of barley were very limited, and as the demand continued for grinding qualities, and partially for distilling samples, holders were enabled to realise 1s per qr more money; grinding obtaining 33s to 34s, and distilling, 35s to 36s; these rates, however, having brought forward increased supplies, especially from Scotland and Ireland, and different samples of foreign offering at from 21s to 23s for good Danish, Holstein, and Mecklenburg, and 24s for Saale descriptions; the trade flagged, and a reduction of 1s per qr was submitted to.

The quantity which has paid duty is noted in the following table, comprising also the quantity of OATS, BEANS, and PEAS, rendered free for the consumption in LONDON, LIVERPOOL, HULL, and BRISTOL, for the current year ending 23d of July.—

	London.	Liverpool.	Hull.	Bristol.
	qrs.	qrs.	qrs.	qrs.
Barley..	1065	—	—	265
Oats....	5114	26	—	66
Beans...	2344	1030	127	741
Peas....	7075	3275	925	715

The malt trade has remained firm, and as the sale of the article has been principally confined to the country demand and the smaller brewers, there are few samples offering, and in a few instances rather more money has been realised.

The supply of oats has been very limited, and upwards of 76,000 qrs less than in June; the principal deficiency occurring in the Irish receipts. The large import however of the previous month, has, by meeting the demand of the more necessitous purchasers, caused the trade to rule heavy, especially as the duty on the admission of foreign qualities has remained at 10s 9d per qr., and consequently several bonded parcels have been pressing on the market; in fact most of the cargoes newly arrived have been offering ex ship, good feed, say Swedish, Danish, Holstein, and Mecklenburg at 22s to 24s; Riga and Archangel at 22s to 23s. The currencies have in consequence receded 6d for good fresh corn, and 6d to 1s for other descriptions. Exports continue to be made to the West Indies.

The demand for beans in the early part of the month was limited, and as several samples of foreign were pressed upon the market, holders were obliged to submit to a reduction altogether

of 2s to 3s, and in some instances even more, as there appeared little probability of the duties receding lower, and consequently most of the supplies in bond were ready for admission, which with the fine and healthy appearance of the crops, naturally led to a reduction in their value. Beans being an article, the consumption or demand for which it is difficult to force; the continuance, however, of warm weather, being deemed injurious to their full podding, prices partially rallied, but have again become dull, remaining fully 2s cheaper than at the commencement of June.

Peas have ruled extremely dull, particularly white qualities, owing to the number of foreign offering on the market, and a reduction of fully 3s per qr has been effected; the duty having declined to 8s per qr and strenuous efforts are being made to reduce it to 6s 6d or even 5s. A few samples of new white have appeared, regular, and in good condition, but rather small, for which 36s was obtained, but the tendency in price was rather downwards; in grey or maple little speculation has taken place, quotations closing nearly the same as at the commencement of the month.

During the month of July the following quantities of grain and flour have arrived in the port of London.

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats. qrs.
English .....	22,442	3,054	16,738	9,482
Scotch .....	195	2,148	10	16,674
Irish .....	...	1,644	5	46,013
<b>Total in July.</b>	<b>22,637</b>	<b>6,846</b>	<b>16,753</b>	<b>66,169</b>
<b>Total in June.</b>	<b>33,885</b>	<b>11,933</b>	<b>24,128</b>	<b>145,603</b>
<b>Total in May.</b>	<b>27,217</b>	<b>15,451</b>	<b>30,876</b>	<b>85,576</b>
Foreign in July.	6,870	2,503	...	14,800
	Beans. qrs.	Peas. qrs.	Linseed. qrs.	Flour. sacks.
English .....	2,681	427	...	27,021
Scotch .....	...	...	...	135
Irish .....	...	...	...	70
<b>Total in July.</b>	<b>2,681</b>	<b>427</b>	<b>...</b>	<b>28,236</b>
<b>Total in June.</b>	<b>4,098</b>	<b>529</b>	<b>2</b>	<b>38,742</b>
<b>Total in May</b>	<b>5,027</b>	<b>723</b>	<b>17</b>	<b>41,625</b>
Foreign in July.	1,844	2,564	10,725	brls. 1,850

In CANADA the season, though backward is not unfavourable for the crops, and though less wheat has been got into the ground this year owing to the protracted winter, yet the deficiency is made up with spring corn. The crop of hay was satisfactory; the markets were dull for wheat; at MONTREAL Archangel wheat had realized 5s per 60lbs; Baltic red, 5s 3½d to 5s 4d; and Upper Canada 5s 6d per 60lbs; the late imports from England of wheat have not moved so readily off as had been anticipated. An active demand had been experienced for flour, and fine qualities had been bought at 29s for exportation.

In VAN DIEMEN'S LAND the wet weather was preventing the completion of the harvest, injuring the grain left out in the fields, and damaging the newly thatched ricks; the prices of wheat at Hobart Town and Launceston remained at 9s to 10s 6d; Barley, 5s to 6s 6d; Oats, 4s 6d to 6s per bushel. The

market as well as the Sydney trade will be regulated mainly by the arrivals from India, England, America, and the Cape of Good Hope.

At SYDNEY, New South Wales, several arrivals of wheat and flour had come to hand from Hobart Town, and Launceston, and various cargoes were expected from America, India, and Cape of Good Hope; prices, however, remained at 12s 6d per bushel for the best descriptions; flour had declined 5s per 100lbs, and was noted at 23s to 25s; Oats, 4s 6d; Barley, 5s 6d; Indian corn was ruling high, being noted at 9s per bushel; but as the accounts of the crops in Van Diemen's Land were favourable, prices were tending downwards, and on the anticipated imports of wheat taking place, the currencies were expected materially to recede.

From SWAN RIVER it is stated that the crops are generally looking well, though in many instances not so heavy as on some preceding years, probably from the rains having been unusually protracted, or from the lands being in some degree exhausted by a continuation of the same crops for a series of years without aid. The produce of the present harvest was estimated at the lowest possible average, say twelve bushels per acre, which will give 15,878 bushels, and deducting 2000 bushels for the seed the ensuing season, and computing the population at 1200, allowing 8 bushels per head per annum, enough provision will be found for nearly 450½ days.

At VALPARAISO and RIO DE JANEIRO business was much interrupted by the unsettled state of Peru, and in fact of all the South American provinces; the stock of Flour had been increased by arrivals from America, and as the demand was limited, prices were expected to recede.

In France the same character of weather is prevailing as has been latterly experienced in England, and the excessive heat, which in the more southern districts is likened to the "hot air of Senegal," is parching up the ground, and turning off the grain prematurely, proving particularly detrimental to the late sown wheats, spring corn, and pulse. The appearances however, generally, of wheat, are such, that holders are anxious to quit their stocks on hand, more especially as the heat is affecting the condition of the samples; the markets consequently are supplied to a greater extent than the current demand requires, and prices are therefore receding, and are become in some places perfectly nominal. Flour, for the same reasons, is heavy sale, and complaints are being made by millers of the scarcity of water. Much of the rye is already cut, and at Bordeaux new samples of wheat had been shown, good in quality; this latter market was largely supplied, and arrivals still daily coming to hand from Normandy; but the accounts from Languedoc, intimating that the warm weather had been injurious to the wheat, the surplus stocks which are now accumulating, may thus find a ready vent, should the reports prove correct. At Nantes, the few arrivals of grain which the lowness of the water in the Loire permits, are taken into granary; and as foreign cargoes are being rendered free on the coast of the Bay of Biscay, and then forwarded to Bordeaux, Marseilles, &c., prices are not expected to advance, though the heat of July is proving injurious to the grain in certain situations. At Marseille the currencies had been rendered nominal, owing to the approach of harvest, and aspects of the crops. In Burgundy, however, it was stated a deficiency would be experienced owing to the drought, which, if correct, would materially influence prices at Marseille. Oats were



An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 3th July, 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat, bush.	Barley, qrs.	Oats, qrs.	Rye, qrs.	Flour, ows.
Quantity imported . . . . .	24,314	4,674	6,167	..	..
Do. entered for home consumption . . . . .	578	9,413	1,156	..	..
Do. remaining in warehouse . . . . .	561,269	30,942	226,490	1,434	..
	Peas, qrs.	Beans, qrs.	Maize, qrs.	Flour, ows.	
Quantity imported . . . . .	15,813	23,653	504	24,290	..
Do. entered for consumption . . . . .	14,860	3,045	79	2,353	..
Do. remaining in warehouse . . . . .	16,991	58,063	475	204,574	..

IMPERIAL AVERAGES.

Week ending	Wheat	Barley	Oats	Rye	Beans	Peas
10th June	51 0	33 2	24 7	35 2	40 3	41 7
17th "	51 1	32 1	24 5	34 10	39 7	40 1
24th "	59 6	32 2	24 1	36 2	40 0	40 8
1st July	50 8	32 8	23 10	35 11	39 11	40 10
8th "	50 7	33 1	23 10	36 6	39 7	42 10
15th "	49 4	32 10	23 8	35 4	39 0	41 6
Aggregate average of the six weeks which regulates the duty . . . . .	50 6	32 8	24 1	35 8	39 9	41 3
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London . . . . .	36 8	13 10	10 9	16 9	11 0	8 0
Do. on grain from British possessions out of Europe . . . . .	5 0	2 6	2 6	3 0	3 0	3 0
Foreign Flour, 28s 8d per 196lbs. British Possessions do. 3s per 196 lbs.						

BOROUGH AND SPITALFIELDS MARKET.

AUGUST 1.

New Potatoes, with which the above markets are lavishly supplied, command a ready sale, at somewhat reduced prices—viz., Ware Potatoes from 4s to 6s; middling do. 3s to 3s 6d; and chat do. 2s to 2s 6d per cwt.

WOOL MARKETS.

BRITISH.

	Per lb.	JULY 1.		AUGUST 1.		
		s. d.	s. d.	s. d.	s. d.	
Down Tegs . . . . .	1 9	to	0 0	1 9	to	0 0
Half-bred do . . . . .	1 9	to	1 10	1 9	to	1 10
Ewes and Wethers . . . . .	1 6	to	1 8	1 6	to	1 8
Leicester Hogs . . . . .	1 5	to	1 6	1 5	to	1 6
Do. Wethers . . . . .	1 3	to	1 6	1 3	to	1 6
Blanket Wool . . . . .	1 0	to	1 6	1 0	to	1 6
Flannel . . . . .	1 2	to	1 9	1 3	to	1 9
Skin Combing . . . . .	1 4	to	1 6	1 4	to	1 6

LIVERPOOL.

WEEK ENDING JULY 25.

IRISH and ENGLISH WOOLS have been a good deal inquired for, and commanded upon the whole tolerably fair prices. The annexed are the current quotations:—

Irish Wools—Irish fleeces, mixed lots, 17½d to 18½d; ditto wethers, 17d to 17½d; ditto hogs, 19½d to 24d; ditto combing skin, 16d to 17d; short skin, 14½d to 16½d. Import for the week, 179 bags; previously this year, 3,423 ditto. English Wools—Combing fleeces, 19½d to 20½d; Down ewes and wethers, 19d to 20½d; ditto tegs, 21d to 22½d; super. skin, 18d to 19d; head ditto, 15½d to 17d.

SCOTCH WOOLS.—The accounts from Inverness and other fairs in Scotland represent a considerable business to have been done in wools generally, at prices about adequate to the current rates of this market. Apprehension is expressed that the weight of Laid and White Highland will be considerably inferior to the clip of last year, owing to the casualties of the Spring. A steady business has been done here during the week at last week's prices.

	per stone of 24lbs.	
Laid Highland Wool, from 12s 6d to 13s 0d	12s 6d	13s 0d
White do. do. . . . .	16s 0d	17s 0d
Laid Crossed do. . . . .	17s 0d	18s 0d
Washed do. do. . . . .	18s 0d	19s 0d
Laid Cheviot do. . . . .	20s 0d	22s 0d
Washed do. do. . . . .	26s 0d	28s 0d
White do. do. . . . .	32s 0d	36s 0d
Import for the week . . . . .	801 bags.	
Previously this year . . . . .	3955 do.	

FOREIGN WOOLS.—The transactions which have taken place in foreign wools have been done at good prices, and the annexed quotations have been fully supported. The imports have been large consisting of 1,960 bags. From Sydney or Hobart Town there have been no arrivals. Up to the present time the imports of foreign wool exceed by nearly 7,000 bags the imports of the same period last year. Odessa, fine, 2s to 3s 6d; Portugal R, 1s 5d to 1s 7d; Portugal, low marks, 1s 0½d to 1s 2½d; Spanish R, 2s 6d to 2s 9d; Do. F S, 2s 2d to 2s 4d; German fleeces, 2s 2d to 2s 6d; German, assorted, 2s 6d to 2s 9d; German, lambs, 2s 6d to 3s 6d; New South Wales, 2s 4d to 3s; Russian wool, 8½d to 9½d; Buenos Ayres, 4d to 5½d; Mogadore and Barbary, 4½d to 6d. Import for the week, 1,966 bales; previously this year, 19,924 bales.

SCOTCH.

	Per Stone of 24 lbs.		JULY 1.		AUGUST 1.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Laid Highland Wool, from 12 6 to 13 0	12 6	to	13 0	12 6	to	13 0
White Do. Do. . . . .	16 0	to	16 6	16 0	to	17 0
Laid Crossed Do. . . . .	16 0	to	17 0	17 0	to	18 0
Washed Do. Do. . . . .	17 6	to	18 6	18 0	to	19 0
Laid Cheviots. . . . .	19 0	to	21 0	20 0	to	22 0
Washed Do. . . . .	26 0	to	28 0	26 0	to	28 0
White Do. . . . .	32 0	to	34 0	32 0	to	36 0

FOREIGN.

JULY 25.

The London supply has embraced, since this day se'night, about 910 packages, mostly from New South Wales, Germany, and Spain. At the city sales of last week, which were well attended, wools went off briskly, at the following prices—Australian, from 1s 4½d to 2s 10½d; and Van Diemen's Land, 1s 8d to 2s 8d per lb. In private contract trade, but little doing, at our last week's quotations. There are still four City sales to take place this day (Monday) and to-morrow of about 2,500 packages, principally of Colonial wool.

BONES.

Since our last there have passed the SOUND or ELSINORE, the GREAT BELT, and the HOLSTEIN CANAL, ships loaded with Bones, bound for Hull, 13; Berwick, 2; Newcastle, 1; Grimsby, 1; Boston, 1; Bridlington, 2; other parts of England, 1.

# THE POLITICAL COMPANION

TO

## THE FARMER'S MAGAZINE.

[SPEECHES OF MEMBERS ON THURSDAY EVENING, THE 21<sup>st</sup> JULY, ON THE NON-REPORT OF THE COMMONS AGRICULTURAL COMMITTEE.]

Lord DARLINGTON was desirous of knowing from the noble lord opposite (Lord Howick) whether the agricultural committee intended to report this session? He had heard, with no little regret and astonishment, that the committee had determined to make no report. He was confident that if such were the case, the agriculturists throughout the kingdom would feel great dissatisfaction on learning, that after sitting and hearing evidence for five months, the committee were not prepared to satisfy the nation on a subject of such importance. He wished to know whether any motion was intended in order to bring on a general discussion, or whether any other means would be taken to inform the public why the committee had made no report?—Lord HOWICK—Perhaps I ought to leave it to the chairman of the committee to give a reply, but as the noble lord has addressed himself to me, I may be permitted to observe that it was no less a matter of surprise to me than to others that the committee on the state of agriculture has come to no report. The motion for reporting the evidence only was made by the right hon. member for Cumberland, and it was seconded by the noble member for Buckinghamshire; but the members of government upon the committee were perfectly ready to discuss the propositions contained in the report which had been drawn up by the chairman, the hon. member for Hampshire. In deference, however, to those who were immediately connected with the agricultural interest, they agreed that no opinion upon the evidence should be expressed. I did venture to express my surprise that in a committee of twenty-five members, eighteen of whom were county representatives, no one connected with the agricultural interest brought forward a proposition even for discussion. (*Cheers.*) If, therefore, the noble lord (Darlington) has been disappointed, from the same disappointment the members of government are not exempted. (*Hear.*)—Sir J. GRAHAM: Since the noble lord has made this answer, it is perhaps due to myself to state that I was certainly the person who made the motion that no opinion should be expressed by the committee. (*Cries of "Chair."*)—Mr. HUME: If the right hon. baronet proceeds, I hope that I also shall be allowed to make a few observations. (*Cheers.*)—Sir J. GRAHAM: I was only about to make one remark on what has been said by the noble lord, which in itself was irregular, inasmuch as it was not an answer to a question so much as a disclosure of the proceedings of the committee. If the conduct of individual members is to be canvassed, I claim a right to discuss the conduct of the members of the government. (*Cheers.*)—Mr. HAWES: If the right hon. baronet is to continue the debate, I presume that any member who takes an opposite view of the subject will have the opportunity of giving an answer to his speech.—Sir J. GRAHAM: If any technical difficulty be thrown in my way, I am prepared to conclude with a motion (*hear hear*); but I claim my right to give an explanation, in consequence of what has fallen from the noble lord. It is impossible that any subject can be of greater importance; and by whom was the proposition for a committee made? By an independent member, or by one of the Secretaries of State in the present government? Did government undertake the inquiry, and did any minister take the chair? Under Lord Grey a Cabinet Minister presided over the investigation of the committee, and it was kept under the distinct control of government; but, in this instance, no member of the government took the chair,

nor did any constantly attend the progress of the inquiry. The chair was filled by an independent member; and if the question of attendance be introduced, that is matter of record: a note was made of the daily presence of the members of the committee, and that will speak for itself. The noble lord says that government acquiesced in the motion that no report should be made. True; and since it had been made matter of discussion, I may say that no man commented with greater severity on the proposed report of the hon. member for Hampshire than the Noble Secretary at War. I therefore hear him talk of it as a bare acquiescence with astonishment. (*Hear, hear.*) I understood him to say that nothing could induce him to agree to the report of the hon. member for Hampshire. There was, indeed, another report of a different description, which he was disposed to favour; but the truth was, that the members of the government came down to the committee without having made up their opinions—they went about fishing for a report in any quarter where it could be obtained, and they were glad to catch at anything let it come from where it would. (*Cheers.*) They had nothing to propose themselves, and now they made it a matter of censure that some other member of the committee did bring forward a motion. (*Cries of "Move, move."*) I beg leave to move that the other orders of the day be now read. (*Laughter.*)—The SPEAKER put the question.—The Marquis of CHANDOS: It is quite true that I seconded the motion of my right hon. friend that no report be made, and I will fairly state why. The report laid before us for adoption was of such a nature, that if it had gone before the country as adopted by the committee, it would have done more injury to the farmer than anything else that can well be imagined. I therefore thought it my duty—and if there be any blame in doing so, I am willing to bear it—to second the rejection of that report. When the evidence goes forth it will show, among other things, who attended; and I would much rather stand alone in my opinions than be fettered by such as were offered in the report.—Mr. SHAW LEFEVRE: Having had the honour to be chairman of the committee I may be allowed to say that I endeavoured to conduct the inquiry as impartially as I could. (*Cheers.*) My object was, that no class of persons connected with agriculture should have it to say that its case had not been considered. (*Hear.*) It is true that, after the report I had drawn up had been read, it was moved that the evidence should be laid before the House without any observations; and it is true also that the Secretary of State for the Home Department supported that motion. He did so very much in deference to the opinion of the noble member for Buckinghamshire, and my noble friend expressly said that until he heard the noble marquis he was not prepared to agree to the proposition of the right hon. baronet. [Lord J. Russell said something to Mr. Shaw Lefevre.] He reminds me that the expression he used upon the occasion was, that he deferred to the authority of the noble member for Buckinghamshire. My report certainly did not meet the views of the committee, and all I can say of it, is that it was formed on an honest conviction that it was supported by the evidence (*cheers*), and if the committee had allowed it, I could have shown that every paragraph had been established. As to the interests of the farmer, I can assure the House that no one has a greater interest in maintaining them than I have: the great evil has been, that the farmers never were told what was the true state of the case. (*Cheers.*) They had too great a dependence upon corn-laws. (*Cheers.*) Therefore I said that they ought, in the first instance, to look to their landlords, and that when they had fairly and properly reduced their rents, the farmers must rely on the other sources possessed in common by all agriculturists, by

which many are now enjoying a state of comparative prosperity. I am aware that unless the report obtained the sanction of the great majority of the committee, it would not have had due weight with the country, and for this reason I do not say that we could have come to any other conclusion than not to give any opinion. At the same time I am bound to add, that if after such a protracted inquiry and such a mass of evidence the committee was unable to agree upon any distinct measure of relief, it is a very convincing proof that it is not in the power of the legislature to do anything. (*Cheers.*)—**Mr. HUME**: Although the committee consisted of country gentlemen, in the proportion of, I believe, three to one, and although the committee was appointed at their earnest instance, I am delighted to find that the investigation has ended as I foretold. I will only make this observation to the noble marquis. He hopes that the evidence will go forth and show how far his case has been made out; but the portion of the evidence I have seen destroys his case entirely. I have not seen the latter part of it, but what I have seen establishes that the labouring man—in whose behalf the country gentlemen were so loud, who never thought of themselves in the preservation of the corn-laws, but only of the agricultural servants—for the last six months prior to the sitting of the committee was in a better condition than for years past.—**Mr. J. E. DENISON** complained of the undeserved attack which the right hon. baronet (Sir J. Graham) had made upon the government, and expressed his regret that the motion for no report to be made had been adopted, although he admitted that he did not agree in all parts of the report drawn up by the chairman. He feared that the country would be disappointed at the separation of the committee without the expression of any opinion.—**Sir B. Vere** thought the country had a right to look to the Legislature and to the Government for a report. No such motion as that of the right hon. baronet would have been made had it been thought likely that the committee would come to a satisfactory conclusion.—**Mr. WAKLEY**: I rise in consequence of the remark of the hon. member for Middlesex, who talks of the improved condition of labourers employed in agriculture. I wish to be informed whether any of the labourers were examined, and if they were, from what counties they were selected?—**Lord JOHN RUSSELL**: I feel bound to afford such explanation as I can give relative to the statement of the right hon. baronet opposite. The noble member for Buckinghamshire had stated that it was his intention to move for an inquiry into agricultural distress, and the Government was of opinion that, with the many complaints on that subject from the owners, and more particularly from the occupiers of the land, it was fit to appoint a committee. At the same time, in proposing such a committee, I did not state that there was any great or very prominent measure of relief which could, in my opinion, be pointed out by its labours. With respect, however, to certain burdens on the agricultural interest—with respect to county-rates and poor-rates, I thought that such a committee might be able to ascertain whether measures to be adopted by Parliament might or might not be practically beneficial, and lead to some improvement. In naming the committee, I placed upon it a great majority of members for agricultural counties, and I believe it was objected at the time, that out of 30 members, 23 or 24 represented, almost exclusively, the agricultural interest. The committee was appointed, and my honourable friend the member for Hampshire was made chairman of it. The investigation was prosecuted with great diligence, and when we first came to the question, what should be the matter of inquiry? I think every member of the committee will support me in the statement that I said it would be unwise to put fetters upon it; (*cheers*), that no fetters ought to be put upon the inquiry beyond such as were necessary to prevent the evidence extending to subjects quite foreign and unconnected. The consequence was, that the committee entered into an investigation more extended than that of the committee of 1833. At the conclusion of their labours, and when a sufficient number of the committee was in attendance, my honourable friend,

the chairman, produced his draft of a report. It was communicated to me, as well as to others; but it so happened that I believe I was one of the last to receive it. The committee was summoned to consider it: no less than twenty-five members attended, and eighteen of those were members for counties. And with regard to members for counties, it is to be observed that of those whom I had named as representing counties connected with manufactures, the noble lord the member for Lancashire declined to attend; so that the county members were chiefly members for agricultural counties, and represented agricultural interests. I came to the committee under the expectation that the draft of the report was to be considered point by point, and prepared to give my opinion upon every sentence. It was to me matter of great astonishment to find the right hon. baronet, the member for Cumberland, the chairman of the committee of 1833, propose immediately that the whole report should be suppressed, that not a word of it should be taken into consideration; but a resolution be passed, declaring that the committee would only report the evidence. I thought the course extraordinary, but my surprise was lessened, and my opinion a good deal changed, when I heard the noble marquis, the member for Buckinghamshire, second the motion. (*Cheers.*) Certainly I had expected, that if the report of my hon. friend the chairman were not adopted (and I was not disposed to press upon the committee all the statements it contained), it would be considered fairly, and then members would state their individual opinion. It did not contain any proposal for the immediate relief of agricultural distress; but I little thought that a motion would be made for its total suppression—suppression, too, by those who had been calling upon the House for months, and not only for months but for years, to take into consideration the distresses of the agricultural interest. (*Cheers.*) The right hon. baronet and the noble marquis had no proposal to make, they had no definite remedy to offer, but merely moved the suppression of the report. I said on the occasion that if I, as a member of the Government and of the committee, agreed most reluctantly to that course, it was not that I was not prepared to enter fully into the statements contained in the draft of the report or in any substitute that might be offered; and I added that my wish was that the committee should give an opinion, in the first place, with respect to the Poor-laws and the Poor Bill now in operation; next, upon a remedy applicable to tithes affecting agricultural interest; and thirdly, upon the question of the currency, a subject that had occupied much of the attention of the committee. I declared myself ready to enter into these topics, to debate these points, and to endeavour to cause my opinions to prevail; but if they did not prevail, I was ready that the committee should agree to a report containing the opinions of the majority.—**Sir J. GRAHAM**: You proposed nothing.—**Lord JOHN RUSSELL**: I stated that these were fit subjects for a report, and I added that my opinions were very much those embodied in his draft by the chairman. I must also mention that I gave it to the committee as my opinion, that a further ground for hesitation and reluctance in agreeing to the resolution of the right hon. baronet was, that great disappointment would prevail in the country, and that the farmers who had applied to Parliament for some inquiry and for some remedy, if they would have been disappointed at the refusal of investigation, would be still more disappointed at the separation of the committee, without making any report. I have said thus much to show that Government at least is not responsible for the committee having come to no result. (*Cheers.*) My noble friend near me (Lord Howick) has observed, that the committee, by adopting no report, did negative many a statement both with regard to agricultural distress and the remedies applicable to it. I certainly concurred very much in that opinion. For instance, with respect to the currency, it has been said in the present and in former sessions, that the great remedy for agricultural as well as for all other distress, was the repeal of the bill introduced by the right honourable baronet (Sir R. Peel) effecting a change in the circulating medium. That



subject was fully investigated by the committee, and by not coming to any resolution it has confirmed the opinion entertained by the right honourable baronet and myself, and repeatedly stated in resolutions of this house. It shows that those who have endeavoured to raise the country on that subject are not prepared in a committee of twenty-five members, eighteen of whom represented agricultural counties, to back their own opinions. (*Cheers.*) I repeat, then, that for the non-adoption of any report ministers are not responsible; we were quite ready; I came down to the committee fully prepared to have some three or four days' debate on the report, and those who are responsible are the members who have over and over again asserted that the agricultural interest is in distress, and that relief could be given by Parliament. (*Cheers.*) The result of the whole is that—admitting, as I must do, that distress has prevailed for some years among the occupiers of the land, a distress which I have always lamented, and which, I hope, is now diminishing—it is not to be relieved by a change in the currency (*hear, hear*); that it is not to be relieved by a repeal of the malt tax (*hear, hear*); that it is not to be relieved by any specific measure that Parliament can apply to the evil. (*Hear, hear.*) I have not been forward in calling myself the advocate of the agricultural interest—I have not been forward in summoning meetings of farmers to demand inquiry by Government or by Parliament—(*much cheering*)—I have not been forward in asserting that justice was denied to the agricultural interest (*hear, hear*); but I will tell the House what, as a humble member of the administration, I have done. I have been forward in co-operating with a former Government, as a member of that Government, in passing a bill which I thought would prevent abuses in the administration of the poor laws, which would prevent large sums of money being laid out imprudently, and which would tend to restore to the labouring classes of England that character of independence which they formerly enjoyed (*cheers*); I have likewise endeavoured to my utmost, and I hope not unsuccessfully, to pass through Parliament some measure which might relieve the agricultural interest from the levy of tithes in kind, one of the most oppressive burdens that could be inflicted. (*Cheers.*) I have also assisted my right hon. friend near me, the Chancellor of the Exchequer, in proposing some alleviation, by some aid from the public, with respect to county-rates. These things I have done because I thought they were practical measures, tending, as they advanced and promoted the interests of agriculture, to advance and promote the interests of the community. (*Cheers.*) I never have, and I never will profess myself to be the sole and exclusive advocate of any one interest, agricultural, commercial, or manufacturing. I consider it the duty of a member of Parliament, as well as of a member of the Government, to attend to the interests of all impartially. (*Hear.*) I never will endeavour to raise a cry upon these subjects, or to promote an imputation on the character of Parliament, or on the character of either of the two great parties who occupy these benches. (*Much cheering.*) I think that the right hon. baronet opposite (Sir Robert Peel), in all his conduct, either with respect to the currency or the malt-tax, took a wise and an enlarged view of the interests of the country (*hear*); and I am not disposed to let any party feeling interfere with the discharge of what I consider my duty; but having attended to these three great questions—poor-rates, tithes, and currency—I hope we shall stand as fairly before the country as those who, indulging in perpetual and empty declamations on distress, have endeavoured to increase discontent, without having any measure to propose by which distress could be relieved, or discontent removed. (*Cheers from all sides.*)—Mr. O. GORE contended that although the committee had thought proper not to make a report, that was not a sufficient ground for asserting that no sufficient case of distress had been made out on the part of the agriculturists. There was scarcely a tax raised in the country which did not bear directly or indirectly upon the farmer; and if any proof of the existence of extreme distress were wanting, he would refer to the

state of the rents throughout the farming districts, which had fallen, in many cases, from a *U* to half-a-crown, and in some cases even the farmers refused to take the land rent-free.—Sir R. PEEL said, that he thought it necessary, after having been a member of this committee, to trespass upon the House with a few words on the present occasion. When this committee was originally appointed, it would be recollected, perhaps, that he had reluctantly given the proposition his assent; and the reason upon which he assented to it at all was, that being perfectly aware that distress did prevail to a very great extent in the agricultural districts, in many parts of the country, he knew with what feelings of bitterness and alleged hardship men who were deeply concerned in these interests, deeply and personally affected by that distress, might view an unconditional refusal on the part of the Government and of the House to inquire into their condition. But well he recollected also that whilst he gave this as his reason for acquiescing in the appointment of this committee, he at the same time predicted that nothing but disappointment would be the result. (*Hear, hear.*) He foretold this upon many considerations. In the first place, he called to mind the committee upon this very subject in 1833, which reported its opinion to the house, that the agriculturists should seek relief from their own exertions rather than from any extraneous or collateral sources. In that report he had acquiesced, and he remained still unaltered in his opinion, that make whatever report the newly appointed committee might, it would come in the end to the same result—that it would be a delusion for them to tell the country, or to hold out a hope, that Parliament had the case of the agriculturists at all within their power. (*Hear.*) He certainly could not deny that the present system of tithes was a very serious burden upon the land, and, so far as it went, a fundamental cause of the distress which prevailed. But this subject he considered to be one which should more properly be dealt with by the House itself than by a select committee, nor did he expect that whenever the House might come to the consideration of the question it would suffer itself to be in any way guided by the opinion of a select committee. Then there was the matter of the currency. The inquiry before the committee was certainly a general one, and therefore it would have been unwise to have thrown the slightest impediment in the way of their examinations even upon this point. He had thrown, then, no impediment in the way of this particular question mooted in the inquiry, fixed as his own opinions were, that without discussing the expediency of the new system of currency which had some years ago been adopted, great distress must inevitably prevail throughout the country if any attempt were made for returning from the convertible currency which they now had to the inconvertible paper currency which formerly existed. (*Hear, hear.*) He thought it would be impossible now to return to the old system without materially endangering the stability of the property and interests not of one but of every class of persons in the kingdom, and giving rise to doubt and anxiety of the most painful character. The country having had a metallic standard and a convertible currency during a period of fourteen years, and all the transactions during that period having been engaged in under that currency, and upon the faith pledged, time after time by the House, that that currency and that standard should not be again departed from, he considered that it would be useless and hazardous in the extreme to hold out any prospect of a reopening of the question. He thought it was now agreed upon on all hands that Parliament had never adopted a measure more likely to secure to industry its reward, and to preserve a fair equality in the prices of labour and of necessaries, than that for a just and unfluctuating currency. The result of their inquiries in this very committee went to prove, as he thought, the beneficial workings of this measure; the condition of the working classes was found to have been gradually improving under the present system of currency, and it was already shown that any alteration in that system could now only act injuriously upon those who depended upon the price of their daily labour for their support.

(*Hear, hear.*) With respect to the course adopted by the committee in declining to frame a report upon this subject, he must say that, for his own part, he was not at all surprised at it; and he thought that whatever disappointment might be felt by some parties at the absence of such a report, that disappointment was small compared with that which would have been experienced had the committee merely reported opinions upon which they were all agreed. [Such, we believe, were the concluding words of the sentence, which were instantly drowned in laughter.] For his own part he believed he could say that he had a much deeper personal interest in agriculture than in any other interest or branch of industry in the state; he felt the most strongly rooted attachment to all that was connected with the agricultural calling, and he believed that these were the strongest social reasons to justify this feeling of preference; but at the same time he felt so perfectly satisfied that the hopes of the agricultural interest must rest eventually upon their own exertions, that he could not bring himself to encourage on their part the delusive expectations that the legislature, either by an alteration of taxation or any other change in the financial system of the country whatever, could permanently or substantially place them in an improved condition. (*Cheers*) He would rather tell the agriculturists to look at the farmers of Scotland, and endeavour to work out some plans of amelioration and consequently of relief for themselves, which, however inadequate, perhaps, for the temporary necessity, would eventually be found much more efficient and permanent in its advantages than any which Parliament, by a legislative enactment could afford. To say the honest truth, he must say, that he did not anticipate that any immediate or striking amelioration could at the present juncture be afforded, either by the exertions of Parliament or of individuals. Such important changes and such stupendous improvements had been making of late years, in the mechanical arts of the country, and in their application to the wants of society, that every interest in the county must be expected to be affected by them to a considerable extent. The great increase and improvement in the means of conveyance, particularly in the use of steam navigation, by bringing into competition the most distant soils which had hitherto been disused, must inevitably lead to the disadvantage of their longer and more highly cultivated lands, which, up to within a short period back, had enjoyed the monopoly which their advantageous position afforded them. It was under these impressions that he had agreed to the proposal made by the committee, that they should not frame a report. At the same time he thought some of the circumstances connected with that resolution on the part of the committee were worthy of remembrance. If he recollected rightly, a report was presented by the chairman to the committee, and the committee expressed itself under great obligations to the chairman for the ability and delicacy with which he had performed his task. But if he was quite clear in what followed, it was that the noble lord, having come down with the report in his hand, went through it to the committee, reading it backwards like a magician (*a laugh*)—began at the end, and so up to the beginning, proceeded to strike out all the brains of the report, (*a laugh*.) stating in detail at the same time most satisfactory reasons why they should not make a report at all. (*Cheers and laughter from both sides of the House.*) With regard to the currency, for instance, the noble lord read in the first place a passage from the King's speech, and then the resolution which had been passed by the House that any alteration in the system of currency at present existing would lead to very dangerous and prejudicial results, and therefore would not be acquiesced in by the House. The noble lord then added, that upon the very first day of the committee's sitting, if he had been told that a division would take place upon the question of the currency, he should have predicted what would happen, for that the subject was one which he considered far too important in its bearings, not upon agriculture only, but upon every interest and individual who had anything at stake in the country, to be decided upon by a select committee appointed to enquire into

the state of agriculture. The noble lord next came to the question of the corn-laws, which he also thought was too weighty and complicated for the committee to deal with (*Hear, hear*); and then the noble lord touched upon the proposed reduction of the malt-tax, with a corresponding remission of foreign duties, which he said was a subject to which he hoped his right hon. friend, the Chancellor of the Exchequer, would devote his earliest and best attention, but in respect to which in the meantime he thought the committee was hardly called upon to express an opinion. (*Hear, hear.*) He (Sir Robert Peel) followed the noble lord on this occasion, and said that so entirely had the noble lord gathered up every important resolution which the report of the committee contained, and so entirely was he satisfied with the noble lord's reasons for so doing, that he thought they would be acting much more prudently, and run the risk of causing much less disappointment to the public, by abstaining altogether from making a report, than by presenting to the House the mutilated document which remained in the hands of the noble lord, confined, as it was, to a variety of matters of comparatively trifling importance. (*Hear, hear.*) He believed that something was said in it, for instance, about the reduction of one-seventh in the county-rate, which had recently taken place through the new arrangement throwing part of the expense of criminal processes upon the country. But, as he (Sir R. Peel) thought that the country was by this time pretty well acquainted with this gratifying fact, he looked upon it as a matter not sufficiently important in itself to call for an announcement from the committee to the agriculturists of England that a reduction of one farthing in the pound upon the county-rates had been obtained for them. (*Hear, hear, and a laugh.*) The noble lord then suggested something about the very important advantages which the agriculturist might reasonably hope to derive from the new poor-laws, if their future operation should but prove as successful as the experience of the past appeared to warrant. But this really appeared to him to be a subject which the committee was not called upon to discuss; for, if they had been told by the chairman at the commencement of their sittings that the best thing they could do would be to direct their attention to the working of the new poor-laws, he thought they might still be adventuring a little too far to predict that they would prove a very considerable benefit to the agriculturist, however the evidence might eventually be such on the whole to warrant a favourable notice on the subject. Besides this and other topics which he had named, there were a variety more suggested by different hon. members. There was a plan, for instance, which had recently been discovered, for the improvement of stiff lands, and some important facts connected with the draining of soils, which, though, certainly, interesting to those who happened to have stiff and undrained lands, could scarcely be looked upon as of sufficient importance to be entered in the report of the committee. In fact, he believed that the whole committee were at once disposed, if the noble lord's proposal was adopted, to strike out everything in the report which related to the corn laws, the reduction of the malt tax, and the corresponding remission of foreign duties; that, after all, the plough stood in rather too bold a relief in their report. (*A laugh.*) Some gentlemen, to be sure, talked a good deal about harrows, and a variety of other mechanical contrivances, which they respectively thought of sufficient importance to mention; but, upon the whole, he fancied the general feeling of the committee was rather to the omission of all these particulars most willingly. Therefore, under these circumstances, had he acquiesced in the proposal to make no report at all upon the subject of this inquiry, as it appeared impossible to frame any report in which the opinions of all parties could be brought to coincide upon any of the more important features of the question. —After a few words from Mr. Hawes, which were drowned in the bustle caused by members leaving the House, and from Sir R. Peel in explanation. —SIR J. GRAYHAM briefly explained, and withdrew his motion. —Mr. S. LEFEVRE then brought up the report of the committee, amidst some laughter and cheering.

## TURF INTELLIGENCE.

The July Newmarket Meeting, which commenced on the 12th ult., though well attended by persons of wealth, rank, and distinction was meagre rather than otherwise in regard to the interest produced by quadrupedal competition, if we except the July Stakes, which on the first day of the Meeting was not decided till after a second severe struggle had taken place, a dead heat occurring between the Anglesea filly, brother to Beiram, and the Fille de Joie filly: and it must be admitted a dead heat between three is a circumstance of very uncommon occurrence. For a few weeks prior to this Meeting, some money had been ventured on the July Stakes, for which the Fille de Joie filly was the uniform favourite up to the moment of starting; the Angelica filly appeared in the betting constellation, but not as a star of the first magnitude; however, on the day of trial, she shone with superior lustre, and by winning the second heat, carried off the prize. For these stakes there were twenty-three subscriptions, and seven candidates appeared at the post for the purpose of disputing the honours of the contest.

Mr. Bird's Redshanks, who has occasionally glimmered in the betting for the Doncaster St. Leger, came out twice at the Newmarket July Meeting, and was successful on each occasion, a circumstance which cannot fail to elevate him in the estimation of those who discuss the doctrine of chances, particularly in regard to the important stake to be decided at Doncaster in September next.

The three most important stakes in the kingdom are exclusively for three-year-olds; namely, the Derby, the Oaks, and the Doncaster St. Leger; and we are of opinion that the three-year-olds of 1836 are an inferior annual sample: as far as relates to public performances, Bay Middleton must be placed at the head of the list; and it cannot be denied that there is no other test or criterion by which to judge a horse's powers half so good as that just mentioned; yet in the case of Bay Middleton, even this mode of mental decision presents a more than ordinary degree of qualifying consideration. Bay Middleton was eminently successful at Newmarket, but, before we allow him great merit for his performances at this celebrated place, we must look at the quality of the nags which came against him: if we except Elis, not one of them could assert the most remote claim to superiority; Elis might be regarded as a good average sort of nag, and Bay Middleton found extreme difficulty in beating him. Bay Middleton came out again on Epsom Downs, and carried off the Derby; but owing to the scandalously disgraceful manner in which the start for this stake was conducted, the chance of success was rendered very unequal, particularly in regard to Gladiator, who did not

get away till Bay Middleton, and the field generally, were something like one hundred yards in advance. And what is the consequence of such a state of things? Gladiator has the distance just mentioned to make up before he can get placed, and must very much increase his speed in order to accomplish this object; therefore while he is thus exerting himself, while he is subjecting his animal system, and particularly the lungs, to violent operation, Bay Middleton is going at his ease; and when at length he comes up, "the puff is taken out of him," in a great degree, while Bay Middleton, held together till this moment is ready to be let out "with all the go in him." Let us suppose for a moment, that the power and speed of Bay Middleton and Gladiator were equal, exactly on a par, we feel not the least hesitation in asserting that under the circumstances of the start for the Derby of the present year, the latter could have no chance of winning. We observed Robinson (rider of Bay Middleton,) as he rose the hill after the start, turn his head, and, as he observed the situation of Gladiator, a smile of confident satisfaction played on his countenance—he felt he held the race in his own hands.

The start for the Derby of 1836, reminded us of the start for the Doncaster St. Leger in 1827; in the last mentioned case, Mameluke, beyond all question the best horse of his year, could not be got off, for a considerable length of time, and in consequence of his bad start was ultimately beaten by Matilda. We do not mean to assert that the Athenian, (to whom is attributed the blame of causing the delay at the late Derby affair,) had he gone off kindly would have been the winner, although, he, as a two-year-old, ran very successfully; but he put aside the chance of Gladiator, as the rider of the latter, (W. Scott,) waiting for The Athenian, was evidently not aware the start was final, till the field had got to a very considerable distance. Chifney rode Mameluke (one of the very best tempered horses in the world) for the St. Leger, and was the owner (he and his brother at least,) of the unruly Athenian. Of all trainers living, there is not one who takes more care of his horses than John Scott; none who more anxiously or more accurately estimates the qualities of his adversaries, or places his nags with more acuteness of judgment, and that he felt tolerably confident of winning the Derby with Gladiator, we have not the least doubt, as he had reserved him for it; while the previous performances of this horse might be justly considered an excellent basis upon which to form such an opinion. Gladiator has been for some time the favourite for the Doncaster St. Leger, and, whatever may be the result, we feel confident he will be brought out for it in as good a form as possible.

For some weeks past the betting, which at this period of the year is generally so brisk upon the two leading events of Goodwood Races, has been remarkably dull, owing to the doubt or mystery which seems to envelope them: we allude, of course, to the Goodwood Stakes and the Goodwood Cup, which will have been decided by the time these remarks reach the eyes of our readers, though, as the Meeting in question does not commence till the 27th of July, we shall not be able to give the detail of them before our next number.

At Goodwood every thing is done with the greatest accuracy possible, and, in forming the various stakes, &c., the horses are brought more together perhaps than at any other Meeting in the kingdom. In the Goodwood Stakes, which, by the numerous subscriptions are swelled into such a rich prize, the quadrupedal candidates are handicapped with the greatest nicety. Rockingham is the favorite for these stakes, and it is intended by his owner to start him for them; the weight allotted him is 9st 12lb: Rockingham is a powerful horse, was the winner of the Great St. Leger in his year, trained on, and has been a successful racer; and, therefore, with this weight on his back, ought to win; he has not done too much work, was never overmarked, and is at this moment "as fresh as paint." Neither Bay Middleton nor Touchstone appear in the list for the Goodwood Stakes; and though Hornsea has accepted, and stands at what we consider not an unfavourable weight (9st 11lb) he is not expected to start, but will, in all probability, be reserved for the Cup. Ascot, who ran Mundig last year to a stand still for the Derby (Mundig could scarcely move five yards beyond the post, although the winner), and who ran unsuccessfully several times subsequently, is, nevertheless, a neat and a good little horse; he has been kept in reserve for some time, and as he is not overweighted for these stakes (8st 7lb), we should suppose he will come out for them. He ran too often last year, rather too much was "taken out of him," seeing that he was then only three years old. Silenus, the same age as Ascot, has been allotted 8 st. for these stakes; but it is generally understood that he will not appear for them, as he is named for the Cup also, where his chance is much more favourable, notwithstanding he will have one pound more to carry.

Silenus, it will be recollected, was a favorite for the Derby of 1835 for a short time, but sunk into nothingness before the day of starting; however, he appeared on Epsom Downs for it, and could neither go the pace nor the distance. He has done little since; we had lost sight of him for some time, and he seemed to be forgotten, when, lo! like a ghost emerging from a mist, he creeps into notice for the Goodwood Cup. As a maiden four-year-old, and not having been placed in the Derby or the St. Leger, he is entitled to a reduction of weight to the amount of fourteen pounds, so that he stands as favorable for the Cup as

possible; his weight for it is 8st 11lb, yet he is not the favorite: Hornsea, the same age, but carrying nine pounds more, forms the apex of the betting list. Should Rockingham win the Goodwood Stakes without distress, he will most likely start for the Cup: Touchstone will not come out for it, nor yet Bay Middleton, on account of the extra weight they would have to carry, the one for winning the Ascot Cup 7lb, the other for the Derby 8lb. Sheet Anchor, who had acquired a very good character, is understood to be amiss; his name has not been mentioned in the money market for some time.

Liverpool races commenced on the 19th inst.

Amongst the competitors for the Liverpool Trade Cup, appeared our old acquaintance Mundig, in nature "as true as steel;" but whose successful race for the Derby in 1835, we were of opinion, would ruin his future prospects as a racer, as our readers are very well aware: notwithstanding the evanescent success of this horse last September at Doncaster, our opinion remained unshaken; he comes out for the Cup in question, with a favourable weight on his back (8st 7lb), and could not get placed. Such must be the result of premature or overstrained exertions at a period of life when the bone has not acquired a mature solidity, the tendon and muscle the requisite development, hardness, and elasticity.

While penning this part of the present article, we received the account of the conclusion of Liverpool races, by which we find that General Chasse came out for the Stand Cup the next day but one after his defeat, and carried off the prize. The conditions of the Stand Cup being weight for age, was in favour of the General; while another circumstance attending it was still more favourable to him; he was met at the starting post by only Mundig and another; and therefore, in the language of the school, "had nothing to beat."

#### STATE OF THE ODDS:—

##### GOODWOOD STAKES, P. P.

4 to 1	agst Mr. Theobald's Rockingham
8 — 1	— Mr. Osbalde-ton's Rush
10 — 1	— Duke of Richmond's Pussy
10 — 1	— Jacob Faithful, by Langar
10 — 1	— Mr. Forth's Louisa
12 — 1	— Felix, by Sultan, out of Fortuna
20 — 1	— Lucifer, by Lottery.

Oak-apple will not start for the Goodwood Stakes.

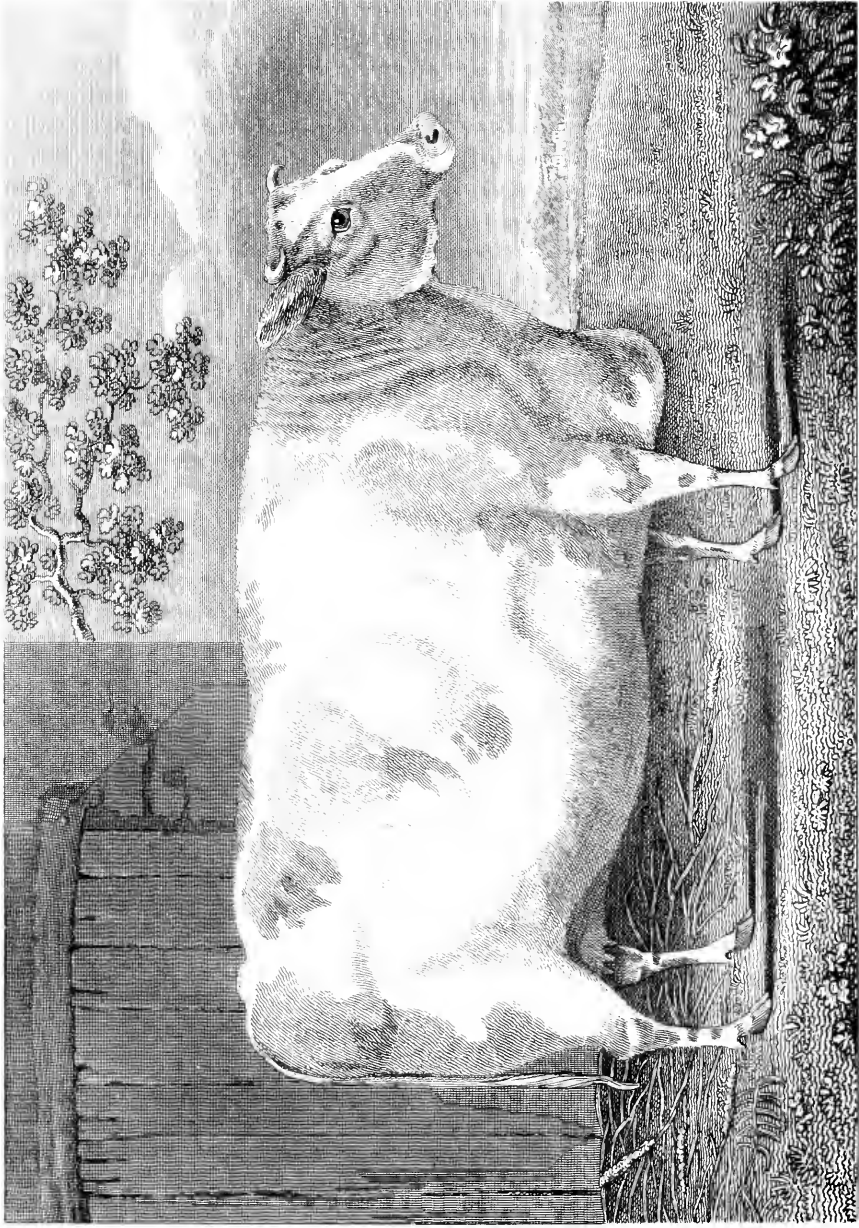
##### GOODWOOD CUP, P. P.

5 to 2	agst Lord Chesterfield's Hornsea
6 — 1	— Sir E. Baker's Bran
10 — 1	— Lord Jersey's Silenus, whose starting for this Cup is doubtful.

##### DONCASTER ST. LEGER.

9 to 2	agst Lord Wilton's Gladiator
8 — 1	— Mr. Bird's Redshank
8 — 1	— Mr. Mostyn's Trapball
9 — 1	— Mr. Allanson's Culture
12 — 1	— Colonel Westem's Wedge
12 — 1	— Mr. Orde's Bee's Wing
30 — 1	— Mr. Dawson's Locomotive





W. H. B. 1835

A DURHAM COW,

the property of Mr. Strickland of Tewkesbury Gloucestershire exhibited at the Smithfield Show 1835

*Engraved by W. H. B. 1835*

Drawn by H. B. K.

# THE FARMER'S MAGAZINE.

SEPTEMBER, 1836.

No. 3.]

[VOL. V.

## THE PLATE.

THE DURHAM COW, of which an Engraving is given in this Number, was the property of Mrs. Strickland, of Tewkesbury, Gloucestershire: a Premium of Fifteen Sovereigns was awarded to her as being the Best Fat Cow. The animal was five years and one month old, was bred on the farm at Tewkesbury, and excited much attention, not only from her own merit, but as being the property of a Lady, whose reputation for the breeding of superior stock stands so high, and is so well known in the West of England.

## ON AGRICULTURAL CHEMISTRY.

BY THOMAS SHAPTER, M.D.

No. III.

“The deficiency among Agriculturists is not so much, perhaps, in experimental, as in scientific knowledge. It is without doubt true, that there may be, and indeed are, good practical farmers, who have but little pretensions to science: but it were too much to assert that even these, however good, might not become better; that they have reached the maximum of improvement; and already discovered the means of obtaining from Nature the utmost which it is in her power to bestow.”

In the previous paper on Agricultural Chemistry it was defined what manures were, and in what they differed from that class which it was thought judicious to term “amenders of the soil:” it was also pointed out in what manner they operate so as to alter and improve the nature of the ground to be manured: and, further, the application of these principles was entered upon in reference to vegetable matters: it was stated, that as certain vegetable products, much used in this country as manure, were largely composed of woody fibre, and which is endued with considerable powers of resistance, it was necessary, in order to render them of service to vegetation, to decompose it, by submitting them to a process of fermentation.

It has been shewn, by some very accurate analysis, that woody fibre contains relatively a larger proportion of carbon than the other vegetable principles, from which circumstance we infer its greater insolubility, as the smaller the proportion of this element the greater is the solubility of the compound. We are aware, from observing the process of fermentation, that during its operation oxygen is absorbed, and free carbon is evolved: it then becomes evident, by fermenting vegetable fibre we gradually diminish that element which forms its chief character, rendering it, in its altered condition, susceptible of being dissolved in water—thus becoming entitled to the term manure.

As all the condensed and solid parts of vegetables contain woody fibre, and which can only be rendered soluble in water by long fermentation, and as it is especially in the fibre that the carbon re-

sides, so necessary to vegetation, we cannot dispense with fermenting vegetable matter, in order to extract this element, so essential as a manure.

It may appear, from what has been now said, that the general practice of ploughing in certain green crops, in order to fatten the land, is injurious, which practice was much recommended when speaking of green crops in the previous paper: but it must be borne in mind that they are thus ploughed in, perhaps, before, or, at least, during the period of flowering, when the plant is albuminous;—the small proportion of fibre that is contained in them being but little formed, and soft, so that the heat and action of the water to which it is submitted in the ground are sufficient to its decomposition, which effect would not take place if the stem were dry, and drained of its juices by the formation of seed.

Sir H. Davy does not appear, however, convinced of the necessity of fermenting dry straws before they are employed, but rather addresses himself to the convenience of such a process. He obtained eight grains of matter soluble in water, of a brown colour, from four hundred grains of dry barley straw: wherefore he infers that there can be no doubt the straw of different crops, immediately ploughed into the ground, affords nourishment to plants; but that there is an objection to this method of using straw, from the difficulty of burying long straw, and from its rendering the husbandry foul. “When straw,” he observes, “is made to ferment, it becomes a more manageable manure; but there is likewise, on the whole, a great loss of nutritive matter. More manure is, perhaps, supplied for a single crop; but the land is less improved than it would be supposing the whole of the vegetable matter could be fairly divided and mixed with the soil.” It is upon this inference of waste that he deems it more economical to chop the straw, and keep it dry till it is ploughed in for the use of the crop, than to add it to the dung-heap for the sake of putrefaction, as in the former case its decomposition is much retarded, and thus its effects are more lasting.

The unmixed dung of quadrupeds may be turned in with the soil without inconvenience immediately it is removed from the stables: there are, indeed, those who think this may be done very advantageously; but it would appear that, by mix-

ing it with litter previously,\* and permitting some slight fermentation before laid upon the soil, it is of greater advantage, and certainly more profitable; as, by so doing, the growth is not likely to be rank—a fault which may occur from the pure dung; and the litter itself with which it is mixed becomes also a manure, from the fermentation that has ensued in consequence of the addition of the pure dung.

In conducting the process of fermentation, there are a few circumstances to be noticed by which it may be more effectual, producing a manure far richer and more beneficial than is ordinarily obtained; and certain precautions should be used, by which many inconveniences, attached to the ordinary mode, may be avoided.

The prevailing notion among farmers is to employ dung fully fermented; indeed many go so far as to permit the woody fibre to be perfectly destroyed, and the heap to have become cold. That this is wasteful and injurious there can be no doubt.

In place of the usual method of heaping up the mixed soil and litter in a great mass, and leaving it in such situation to putrify uncovered and exposed to the intemperance of the seasons, by which it is alternately rained upon and then acted on by the sun, a putrefactive process is rapidly established, and the gases so essential to agricultural produce are generated and evolved, and, in consequence of their great disposition to mingle with the atmosphere, are for ever dissipated.

Sir H. Davy arrives very confidently at the conclusions here laid down. He says that “a *slight incipient* fermentation is undoubtedly of use in the dunghill; for by means of it a disposition is brought on in the woody fibre to decay and dissolve when it is carried to the land or ploughed into the soil; and woody fibre is always in great excess in the refuse of the farm.” But so convinced is he that too great a degree of fermentation is prejudicial, that he affirms it to be better that no fermentation should ensue in the manure before used, than that it be carried too far; for such excess of fermentation destroys and dissipates the most useful parts of the manure. He supports this opinion by some strong facts, referring also to the experience of those who have practically adopted his views. So important and valuable is this to the farmer, that it must plead the excuse for quoting the following passage from the work of Sir H. Davy:—“In the writings of scientific agriculturists a great mass of facts may be found in favour of the application of farm-yard dung in a recent state. Mr. Young, in the *Essay on Manures*, adduces a number of excellent authorities in support of the plan. Many who have doubted have been lately convinced; and, perhaps, there is no subject of investigation in which there is such an union of theoretical and practical evidence. I have myself, within the last ten years, witnessed a number of distinct proofs on the subject.”

“I shall content myself with quoting that which ought to have, and which I am sure will have, the greatest weight amongst agriculturists. Within the last seven years (1812) Mr. Coke has entirely given up the system formerly adopted on his farm of applying fermented dung; and he informs me that his crops have been since as good as they ever were, and that his manure goes nearly twice as far.”

\* Or by the addition of that mineral so valuable to the farmer, viz., limestone, of which we shall speak further presently.

The experiments which this distinguished philosopher instituted, in proof of the above, are no less simple than they are conclusive: some hot fermenting manure, consisting principally of the dung of cattle and litter, is placed in a large retort; a receiver is adapted to the retort in a mercurial pneumatic apparatus, so that the condensable and elastic fluids disengaged might be collected. The results are thus detailed:—“The receiver soon became lined with dew, and drops began, in a few hours, to trickle down the sides of it. Elastic fluid likewise was generated: in three days thirty-five cubical inches had been formed, which, when analyzed, were found to contain twenty one cubical inches of carbonic acid; the remainder was hydro-carbonate, mixed with some azote, probably no more than existed in the common air of the receiver. The fluid matter collected in the receiver at the same time amounted to nearly half an ounce. It had a saline taste, and a disagreeable smell, and contained some acetate and carbonate of ammonia.

“The beak of another retort similarly filled with a very hot dung, was introduced beneath the earth against the roots of some grass: in the short space of a week an evident effect was produced, the grass growing with much more luxuriance than elsewhere.”

In order to obviate these different sources of loss, the farmer, instead of heaping up his mixture of dung and litter in a great mass, and leaving it to putrify uncovered and exposed to the intemperance of the seasons, should place it under the shelter of a shed, so as to be guarded both from the sun and rain: each clearing of the stable should be laid extended in a separate layer, and not thrown together in one heap. The beds thus formed of the separate layers should not be raised much more than two feet in height; and when the heat rages above 100°, or so high that smoke is evolved, making it evident the natural heat of the dung is being exhausted, the beds should be turned back, that this advanced stage of its decomposition may be retarded.

It may be laid down as a law, that the process of fermentation ought to be arrested when the straw commences to change to a brown colour, and when its tissue loses its consistence; for it is a certain mark that the fibrous texture of the vegetable matter is becoming broken down, when the manure becomes perfectly cold. These effects are to be arrested either by undoing and spreading the bed, so as to increase the extent of surface, and thus moderating the rapidity of the putrefaction, as above observed; or by mixing with it earth, rubbish, grass, &c.; or else by carrying it at once to the fields and burying it.

When the dung has but very little consistence—that is, contains but a very small proportion of fibrous material, as is the case with the dung of the fat horned cattle during the spring and autumn,—it ought immediately to be employed; for when its composition is of this soft nature, its decomposition soon ensues, and its heat, which in the first place is very great, is rapidly exhausted. Should it, however, be inconvenient to employ it immediately, a somewhat similar course should be resorted to as recommended above, when the ordinary heap of litter and manure had arrived at the condition to be retarded, viz., that of mixing it with earths and other dry and porous materials; such are to be particularly employed as may be likewise amenders of the soil of which the land is composed to which the dung is destined.

The present prevailing mode amongst farmers



cannot but be highly wasteful of the beneficial particles of manure. In almost all farm-yards the dung and litter, as taken from the stables, is exposed in high-piled heaps to the changes of the climate. The moisture and the warmth eliminates the natural heat of the dung, and the rain carries with it the salts, the urine, and all the soluble juices; and a collection of the most nourishing of its juices is formed at the bottom of the bed, which are thus lost to all agricultural uses. As fermentation proceeds, new soluble compounds are formed, which in their turn are dissipated; so that by degrees all the nutriment and stimulant principles of the manure are lost, and there remains only the "feeble" mixture, which is of no effect.

To remedy as much as is possible these effects, independent of the covered shed, a well or ditch should be formed, into which all the fluids running from the dung-pit may be received, so as at once to use them on the fields. Chaptal proposes that a large hogthead on a small carriage should be employed, and which may be filled from the reservoir. On its utility he says, "It produces wonderful effects the second year, when it is used after the mowing."

To be enabled to decide the question as to causing or not causing the litter of the dung-heap to ferment, it is necessary to know somewhat of the composition of the ground to be manured. If the lands be compact, argillaceous, and cold, the less the dung is fermented the better: for two good effects are then produced—the first that of enriching the soil, moving it, and rendering it more permeable to air and water; the second that of heating it during the successive stages of decomposition and fermentation. If, however, on the other hand, the soil should be light, porous, calcareous, and hot, the *quick* dungs are preferable, since they heat less and bind better, and, in place of laying open the soil, already too porous, to the filtering of the water, it tends to moderate its free passage. A long experience is necessary, however, to perfect such observations, but when it is required to apply manure to soils of different composition, we should bear in mind the more general principles.

The manure from animals bearing wool are the most hot; that of the horse comes next; those of cows and oxen are the least hot of all.

Animal substances, whether they be solid or fluid, alter more rapidly than vegetable. As a general law it may be stated, the less the quantity of earthy salts, the more rapid is the progress of decomposition: their putrefaction produces ammoniacal gas in great abundance. It is this result which particularly distinguishes them from vegetable matter, whose decomposition only gives place to the formation of this gas when they contain in their composition some small portion of albumen. It is especially to the development of this gas, there is every reason to believe, that the very beneficial results arising from the application of some dry animal substances is of such advantage, as will shortly be pointed out.

After the mixed dung of which we have spoken, the urine of horned cattle and horses forms the most abundant manure that can be procured for agriculture; and it is not without regret that we witness every day the little trouble taken to preserve it.

There are few animal substances whose composition varies so much as that of urine;—the nature of the food, and the state of health, produce

great differences. As animals graze upon plants more or less dry or watery, they yield more or less urine, which is more or less charged with salts:—those nourished by a dry forage make less than those nourished by fresh herbage, but the former are more saline than the latter. Urine which is made immediately after drink is less animalised than that which has been long secreting. These circumstances explain the little accordance of the analysis of this secretion by different chemists.

Sir H. Davy observes, that urine is the manure on which the greatest number of chemical experiments have been made, and the nature of which is best understood.

The urine of the cow contains, according to the experiments of Mr. Brand—

Water.....	65	Sulphate of potassa..	6
Phosphate of lime...	3		
Muriates of potassa and ammonia }	15	Carbonates of potassa and ammonia.....	4
Urea.....			

The urine of the horse, according to Vanquelin and Fourcroy, contains—

Carbonate of lime....	11	Muriate of potassa..	9
Carbonate of soda....	9	Urea.....	7
Benzoate of soda....	24	Water and mucilage.	940

We may see, from these analyses, that the urines of different animals vary considerably; but that there is this one leading feature—that all the salts they contain can pass into the plants with the fluid that holds them in solution, when the animal arrangement may become dissolved, as is the case with the urea, which is alike easy of solution and easy of decomposition.

On the other hand, however, there are some principles contained in the urine which the digestive organs of the vegetable have not the power of decomposing;—such are the phosphates of lime, the muriates and sulphates of potass:—these serve only to excite and stimulate the organs; but we must regard the urea, mucilage, uric acid, and other animal matters, as eminently nutritive.

Urine, as immediately made from the animal, cannot be employed as a manure: it would act with too much force, and would dry up the plant. It is necessary to dilute it with water, or to leave it to ferment.

Urine is of great service in moistening those substances of which the composts are formed: it augments their fertilizing qualities, and facilitates the fermentation of those which it is necessary to decompose to render them available for the nutrition of the plant. It is also of use combined with plaister, chalk, &c., and in this mode forms very active manures, especially when applied to cold lands.

Bones, in the present day, have become an object of great consideration to the farmer. This portion of the animal frame is in great measure composed of phosphate of lime and gelatine. The bones which are for the most part employed contain equal proportions of these substances. We obtain from the bones of oxen from fifty to fifty-five per cent. of gelatine; from those of the horse thirty-six to forty; from those of the hog forty-eight to fifty. The less compact the tissue of the bone, and the younger the animal, the greater is the proportion of gelatine. The bones of the fect of the elk, of the stag, of the roe, of the hare, yield, on analysis, eighty to ninety per cent. of the phosph

In order to employ bones advantageously as a

manure, they should, if not ground, be broken into small pieces, then heaped together, and left till a commencing of fermentation ensues: this is known by the formation of the penetrating odour of ammonia that prevail. The heap should then be thrown down, and the material composing it be scattered in the earth; or it may be mingled with the grain and harrowed in with it; or if the grain be sown in a furrow, it is well to line the furrow with it.

In some countries, especially in France, the fat and gelatine is extracted from the bones by boiling water, before sold to the agriculturists; but by this operation they are deprived of the greater portion of their fertilizing virtue.

Chaptal says that he has observed with care what takes place when the bruised bones are undergoing fermentation—that the heap becomes covered on its surface by a layer of slight, unctuous, acrid, and pungent matter, which appears to be formed of a combination of gelatine with ammonia, which is developed by the decomposition of all the animal matters. The same general laws will apply to the application of bones as a manure, as to the dung manures that have been spoken of, as regards the utility of their being fermented; so that if they are employed without this process being commenced, the gelatine is but slowly decomposed, and though the same result eventually is produced, a longer time is required.

Besides the efficacy of bones by decomposition of the principles, we may suppose some beneficial results to accrue from the water of the soil dissolving by little and little the gelatine, and transmitting it unchanged through the organs of the plant. Whether we consider the utility of bones as referable simply to a nutrient power, or under the double relation of nutrient and stimulant, it is evident that their action is very powerful in forwarding vegetation.

## TO THE EDITOR OF THE FARMER'S MAGAZINE.

SIR,—Perhaps some may have hoped that the various excuses for troubling the public with the treatment which has been adopted with success in remedying the various diseases to which cattle are subject, had been exhausted, but at least from those which remain I deem might be a most important selection, viz. that there has not as yet appeared any continued series of papers descriptive of the varied diseases which now exist, and are, I fear from improper management, daily increasing in cattle of every description, in a publication of such extensive agricultural circulation as THE FARMER'S MAGAZINE. This deficiency is more apparent, since it appears particularly adapted for the circulation of such information, however limited in extent, as it is the intent of these papers to convey; it is therefore with intention of remedying this deficiency in your columns I propose to forward to you for publication a monthly paper, in which it shall be my endeavour to describe in the most comprehensive manner the symptoms which, from practical observation, I have found most general and decided, and the remedies which I have found in a like manner the most advantageously exhibited. I wish it also to be understood, I would divest these papers of those technicalities, which render any information, however accurately expressed, comparatively speaking, of little service. The agriculturist is the person whom it is my wish to benefit, and it therefore behoves me to express myself in such a

manner as may be most easily understood by that body generally; and here let me remark, that if from the perusal of these papers any individual of that highly intelligent body of men derives any assistance in the management of his stock, so far as remedying disease is concerned, the author of these papers will be amply remunerated, and the end for which he has placed them before the public attained.

Mr. White remarks in his introduction to the Compendium of Cattle Medicine, page 29, "Every farmer may easily make himself competent to prescribe for his own cattle, and ought to do so." Be it then my pleasing task to render the agriculturist less liable to the imposition and injurious effects arising from the receipts of the druggist and the ignorance of the cow-leach. It will not require much depth of reasoning on my part to prove the perfect inability of these two personages to prescribe, or rather administer, to the animal with advantage; the one to the hurried message of most probably a boy who has been dispatched to the druggist's for a drench, mixes a nostrum which has been transmitted from generation to generation, and which is "to be given in a quart of good ale." Now it is ten to one that the beast is labouring under a violent inflammatory attack, of the nature of which he is altogether ignorant; and what is therefore the consequence? the inflammatory action is increased; fuel is added to the already strongly excited system. The only time when a proper remedy might have been applied with advantage, nay certainty, is passed; and when the veterinary surgeon is called in, he generally finds all over. These losses are attended with a serious inconvenience to the farmer. The animal is most liable to these attacks when in a thriving condition: hence the seriousness of the loss. A word of the cow-leach. It is, perhaps, presumption in me, to endeavour to deteriorate from the universality of talent combined in the person of this individual,—he is very often blacksmith, farrier, "cow-doctor," and not unfrequently clerk to the parish church,—that is to say, if there is one in his village. This universality of talent extends still further; he is consulted by all the children and dames in the parish for applications to cuts, scalds, &c. for the cure of which he possesses a sovereign panacea. I have given this short but, I trust, impressive description of the cow doctor, feeling that it will prove a stronger argument than any I can adduce, in proving in utter incapability, both by nature and education, of this individual to apply such remedies to the diseases of cattle as the urgency of the case may require. He is perfectly ignorant of the law of nature, by which vascular action may be reduced by sedatives; of the effects arising from a disordered state of the digestive organs, and consequently of the means to be used for the removal of the cause,—of the different stages of inflammatory fever,—in fact of every thing which it is necessary to know, or requisite to practice. To whom, therefore, is the farmer to look for assistance? Veterinary surgeons (I allude to such as have undergone the routine of the Veterinary College, &c.) it is true, are qualified by education and practical information, to administer the most advantageous remedies, but the great distance at which in a number of cases they reside from the farmer, renders their knowledge useless, from the very want of a subject whereon to exercise it; for when he arrives, he, generally, either finds the animal dead, or the disorder to have reached such a stage as to preclude the possibility of a recovery. To whom then, I repeat, is the farmer to look for assistance? The answer is plain enough—To himself; "he may easily

make himself competent to prescribe for his own cattle, and ought to do so." There cannot be a more mistaken notion than the supposition that a thorough knowledge of the nature and properties of all drugs is necessary to enable the farmer to become *bonâ fide* his own veterinary surgeon; no such extensive knowledge is at all necessary, it is by far the least important part of his task; the consideration of the cause which produces those manifest effects which we term disease, will invariably point out the remedy to be applied for its removal. I have mentioned this from having frequently heard farmers urge as an excuse, for not superintending this important branch of farming economy, "their ignorance of drugs." Now observe his (the farmer's) consistency. He places the management of these valuable animals, in the hands of a man, who, if he were questioned, would be unable to explain the medicinal properties of any one drug in the whole Pharmacopœia; and why does he so place it? Because, forsooth, he (the farmer) is "ignorant of drugs." This is really too ridiculous, and be it told to the shame of the agriculturists of England, of the nineteenth century, it exists (when candidly considered) to an alarming extent. Nothing is more easily overcome than this apparently difficult task; nearly all the diseases of Horned Cattle arise from one cause, viz:—indigestion. Knowing this we can easily apply the remedy, which of course will vary with the manifest effects; but I will not contemplate myself, this shall appear under its proper head. It is certainly necessary he should have a few medicines in his possession, but much more depends on their judicious selection and administration, than on their number.

I might urge, as additional excuse for the publication of these papers, the endeavour to counteract the ill effects which have arisen from the circulation of such ridiculous publications as "Chater's Cattle Doctor," and many others I could name. These works have a most pernicious tendency, emanating as they do from the most eminent "Cow Doctors," their formulas are received with implicit belief, however positively absurd they may be.

I hope I may, without presumption, express a conviction of the benefits that will result to the farmer from the mode of treatment which I shall recommend, simple it may be, but on this very simplicity is grounded the conviction I express. It is not to be supposed the agriculturist can devote his time to the study of anatomy, strictly speaking; but at the same time I would advise every one in such cases as those in which, either from their general fatal termination, or any other cause, the remedies are found unavailable (for it would be ridiculous to suppose that in *all* cases either the farmer, or any one else, could save the animal) the death of the animal follows—his attending at the opening of it, and by carefully examining every part, discover (which he easily will do) the exact seat of the disease; or if a general one, the primary cause of its being so. By so doing, and comparing the idea he had previously formed of its nature, he will attain by far the most important part of the knowledge it is necessary he should possess; he will ascertain how far the effect is dependent on the cause, and the reason of different effects being manifest as the disease extends or abates its influence; and lastly, he will ascertain the *positive* cause of the death of the animal. All this may be easily acquired without any anatomical knowledge; perseverance, industry, and minute observation, are all that is necessary; the first, from its evident necessity in inducing us to prosecute our search unregardless of

the many apparently inconsistencies which will present themselves; the second, because however good our natural abilities may be, without diligence it is impossible to apply them with advantage; the last, from its making apparent, that which by mere casual observation we might deem unattainable. In drawing this my first paper, to a close, let me earnestly entreat the farmers of Great Britain seriously to consider the fallacy, the inconsistency of the plan which numbers of them are pursuing; they are committing by far the most valuable part of their farming stock to the management of persons ignorantly bigoted, in pursuing a mode of treatment, which is evidently ridiculous. The personal superintendance of the farmer, in the veterinary department, is attended with another advantage which I have not mentioned, viz:—that from his having the opportunity of seeing the animal immediately after it is attacked, he must necessarily possess a threefold advantage over even the veterinary surgeon, by his ability to exhibit such remedies as are desirable, and then check the growth of the disease in its infancy. With these remarks I therefore close my paper, and propose commencing No. 1 of a series of papers on "The Diseases of Cattle Generally," in your next monthly publication, to which this will form an introduction. Your obedient servant,

Aug. 8th, 1836.

AGRICOLA.

## OF MONEY AS A MEDIUM OF EXCHANGE.

BY CHARLES BABBAGE, ESQ., LUCASIAN PROFESSOR OF MATHEMATICS IN THE UNIVERSITY OF CAMBRIDGE.

In the earlier stages of societies the interchange of the few commodities required was conducted by barter; but as soon as their wants became more varied and extensive, the necessity of having some common measure of the value of all commodities—itsself capable of subdivision—became apparent: thus money was introduced. In some countries shells have been employed for this purpose; but civilised nations have, by common consent, adopted the precious metals. The sovereign power has, in most countries, assumed the right of coining; or, in other words, the right of stamping with distinguishing marks, pieces of metal having certain forms and weights, and a certain degree of fineness: the marks becoming a guarantee, to the people amongst whom the money circulates, that each piece is of the required weight and quality.

The expense of manufacturing gold into coin, and that of the loss arising from wear, as well as of interest on the capital invested in it, must either be defrayed by the state, or be compensated by a small reduction in its weight, and is a far less expense to the nation than the loss of time and inconvenience which would arise from a system of exchange or barter.

These coins are liable to two inconveniences: they may be manufactured privately by individuals, of the same quality, and similarly stamped; or imitations may be made of inferior metal, or of diminished weight. The first of these inconveniences would be easily remedied by making the current value of the coin nearly equal to that of the same weight of the metal; and the second would be obviated by the caution of individuals in examining the external characters of each coin, and partly by the punishment inflicted by the state on the perpetrators of such frauds.

The subdivisions of money vary in different countries, and much time may be lost by an inconvenient system of division. The effect is felt in keeping extensive accounts, and particularly in calculating the interest on loans, or the discount upon bills of exchange. The decimal system is the best adapted to facilitate all such calculations; and it becomes an interesting question to consider whether our own currency might not be converted into one decimally divided. The great step, that of abolishing the guinea, has already been taken without any inconvenience, and but little is now required to render the change complete.

If, whenever it becomes necessary to call in the half-crowns, a new coin of the value of two shillings were issued, which should be called by some name implying a unit (a Prince, for instance), we should have the tenth part of a sovereign. A few years after, when the public were familiar with this coin, into one hundred instead of ninety-six farthings; and it would then consist of twenty-five pence, each of which would be four per cent. less in value than the former penny. The shillings and sixpences being then withdrawn from circulation, their place might be supplied with silver coins, each worth five of the new pence, and by others of ten pence, and of two pence halfpenny; the latter coin, having a distinct name, would be the tenth part of a Prince.

The various manufactured commodities, and the various property possessed by the inhabitants of a country, all become measured by the standard thus introduced. But it must be observed that the value of gold is itself variable; and that, like all other commodities, its price depends on the extent of the demand compared by that of the supply.

As transactions multiply, and the sums to be paid become large, the actual transfer of the precious metals from one individual to another is attended with inconvenience and difficulty, and it is found more convenient to substitute written promises to pay on demand specified quantities of gold. These promises are called bank notes; and when the person or body issuing them is known to be able to fulfil the pledge, the note will circulate for a long time before it gets into the hands of any person who may wish to make use of the gold it represents. These paper representatives supply the place of a certain quantity of gold; and, being much cheaper, a large portion of the expense of a metallic circulation is saved by their employment.

As commercial transactions increase, the transfer of bank notes is, to a considerable extent, superseded by shorter processes. Banks are established, into which all monies are paid, and out of which all payments are made, through written orders called checks, drawn by those who keep accounts with them. In a large capital, each bank receives, through its numerous customers, checks payable by every other; and if clerks were sent round to receive the amount in bank-notes due from each, it would occupy much time, and be attended with some risk and inconvenience.

**CLEARING HOUSE.**—In London this is avoided, by making all checks paid in to bankers pass through what is technically called "*The Clearing House.*" In a large room in Lombard-street, about thirty clerks from the several London bankers take their stations, in alphabetical order, at desks placed round the room; each having a small open box by his side, and the name of the firm to which he belongs in large characters on the wall

above his head. From time to time other clerks from every house enter the room, and, passing along, drop into the box the checks due by that firm to the house from which this distributor is sent. The clerk at the table enters the amount of the several checks in a book previously prepared, under the name of the bank to which they are respectively due.

Four o'clock in the afternoon is the latest hour to which the boxes are open to receive checks; and at a few minutes before that time, some signs of increased activity begin to appear in this previously quiet and business-like scene. Numerous clerks then arrive, anxious to distribute, up to the latest possible moment, the checks which have been paid into the houses of their employers.

At four o'clock all the boxes are removed, and each clerk adds up the amount of the checks put into his box and payable by his own to other houses. He also receives another book from his own house, containing the amounts of the checks which their distributing clerk has put into the box of every other banker. Having compared these, he writes out the balances due to or from his own house, opposite the name of each of the other banks; and having verified this statement by a comparison with the similar list made by the clerks of those houses, he sends to his own bank the general balance resulting from this sheet, the amount of which, if it is due from that to other houses, is sent back in bank notes.

At five o'clock the Inspector takes his seat; when each clerk, who has upon the result of all the transactions, a balance to pay to various other houses, pays it to the Inspector, who gives a ticket for the amount. The clerks of those houses to whom money is due, then receive the several sums from the Inspector, who takes from them a ticket for the amount. Thus the whole of these payments are made by a double system of balance, a very small amount of bank notes passing from hand to hand, and scarcely any coin.

It is difficult to form a satisfactory estimate of the sums which daily pass through this operation; they fluctuate from two millions to perhaps fifteen. About two millions and a half may possibly be considered as something like an average, requiring for its adjustment, perhaps 200,000*l* in bank notes and 20*l* in specie. By an agreement between the different bankers, all checks which have the name of any firm written across them must pass through the clearing-house; consequently, if any such check should be lost, the firm on which it is drawn would refuse to pay it at the counter; a circumstance which adds greatly to the convenience of commerce.

The advantage of this system is such, that two meetings a day have been recently established—one at twelve, the other at three o'clock; but the payment of balances takes place once only, at five o'clock.

If all the private banks kept accounts with the Bank of England, it would be possible to carry on the whole of these transactions with a still smaller quantity of circulating medium.

In reflecting on the facility with which these vast transactions are accomplished—supposing, for the sake of argument, that they form only the fourth part of the daily transactions of the whole community—it is impossible not to be struck with the importance of interfering as little as possible with their natural adjustment. Each payment indicates a transfer of property made for the benefit of both parties; and, if it were possible, which

it is not, in place, by legal or other means, some impediment in the way which only amounted to one-eighth per cent., such a species of friction would produce a useless expenditure of nearly four millions annually: a circumstance which is deserving the attention of those who doubt the good policy of the expense incurred by using the precious metals for one portion of the currency of the country.

One of the most obvious differences between a metallic and a paper circulation is, that the coin can never, by any panic or national danger, be reduced below the value of bullion in other civilised countries; whilst a paper currency may, from the action of such causes, totally lose its value. Both metallic and paper money, it is true, may be depreciated, but with very different effects.

**DEPRECIATION OF COIN.**—The state may issue coin of the same nominal value, but containing only half the original quantity of gold, mixed with some cheap alloy; but every piece so issued bears about with it internal evidence of the amount of the depreciation: it is not necessary that every successive proprietor should analyse the new coin; but a few having done so, its intrinsic worth becomes publicly known. Of course the coin previously in circulation is now more valuable as bullion, and quickly disappears. All future purchases adjust themselves to the new standard, and prices are quickly doubled; but all past contracts also are vitiated, and all persons to whom money is owing, if compelled to receive payment in the new coin, are robbed of one-half of their debt, which is confiscated for the benefit of the debtor.

**DEPRECIATION OF PAPER.**—The depreciation of paper money follows a different course. If, by any act of the government, paper is ordained to be a legal tender for debts, and, at the same time, ceases to be exchangeable for coin, those who have occasion to purchase of foreigners, who are not compelled to take the notes, will make some of their payments in gold; and if the issue of paper, unchecked by the power of demanding the gold it represents, be continued, the whole of the coin will soon disappear. But the public, who are obliged to take the notes, are unable, by any internal evidence, to detect the extent of their depreciation; it varies with the amount in circulation, and may go on till the notes shall be worth little more than the paper on which they are printed. During the whole of this time every creditor is suffering to an extent which he cannot measure; and every bargain is rendered uncertain in its advantage, by the continually changing value of the medium through which it is conducted. This calamitous course has actually been run in several countries: in France it reached nearly its extreme limit during the existence of assignats. We have ourselves experienced some portion of the misery it creates; but by a return to sounder principles, have happily escaped the destruction and ruin which always attends the completion of that career.

Every person in a civilised country requires, according to his station in life, the use of a certain quantity of money, to make the ordinary purchases of the articles which he consumes. The same individual pieces of coin, it is true, circulate again and again, in the same district; the identical piece of silver, received by the workman on Saturday night, passing through the hands of the butcher, the baker, and the small tradesman, is, perhaps, given by the latter to the manufacturer in exchange for his check, and is again paid into the

hands of the workman at the end of the succeeding week. Any deficiency in this supply of money is attended with considerable inconvenience to all parties. If it be only in the smaller coins, the first effect is a difficulty in procuring small change; then a disposition in the shop-keepers to refuse change unless a purchase to a certain amount be made; and, finally, a premium in money will be given for changing the larger denominations of coin.

Thus money itself varies in price, when measured by other money in larger masses: and this effect takes place whether the circulating medium is metallic or of paper. These effects have constantly occurred, and particularly during the late war; and, in order to relieve it, silver tokens for various sums were issued by the Bank of England.

The inconvenience and loss arising from a deficiency of small money fall with greatest weight on the classes whose means are least; for the wealthier buyers can readily procure credit for their small purchases, until their bill amounts to one of the larger coins.

As money, when kept in a drawer, produces nothing, few people, in any situation of life, will keep, either in coin or in notes, more than is immediately necessary for their use; when, therefore, there are no profitable modes of employing money, a superabundance of paper will return to the source from whence it issued, and an excess of coin will be converted into bullion and exported.

Since the worth of all property is measured by money, it is obviously conducive to the general welfare of the community, that fluctuations in its value should be rendered as small and as gradual as possible.

The evils which result from sudden changes in the value of money will perhaps become more sensible, if we trace their effects in particular instances. Assuming, as we are quite at liberty to do, an extreme case, let us suppose three persons, each possessing a hundred pounds: one of these, a widow advanced in years, and who, by the advice of her friends, purchases with that sum an annuity of twenty pounds a year during her life: and let the two others be workmen, who, by industry and economy, have saved a hundred pounds out of their wages; both these latter persons proposing to procure machines for calendering, and to commence that business. One of these invests his money in a Savings' Bank; intending to make his own calendering machine, and calculating that he shall expend twenty pounds in materials, and the remaining eighty in supporting himself and in paying the workmen who assist him in constructing it. The other workman, meeting with a machine which he can buy for two hundred pounds, agrees to pay for it a hundred pounds immediately, and the remainder at the end of a twelvemonth. Let us now imagine some alteration to take place in the currency, by which it is depreciated one-half; prices soon adjust themselves to the new circumstance, and the annuity of the widow, though nominally of the same amount, will in reality, purchase only half the quantity of the necessaries of life which it did before. The workman who had placed his money in the Savings' Bank, having perhaps purchased ten pounds worth of materials, and expended ten pounds in labour applied to them, now finds himself, by this alteration in the currency, possessed nominally of eighty pounds, but in reality of a sum which will purchase only half the labour and materials required to finish his machine; and

he can neither complete it, from a want of capital, nor dispose of what he has already done in its unfinished state for the price it has cost him. In the mean time, the other workman, who had incurred a debt of a hundred pounds in order to complete the purchase of his calendering machine, finds that the payments he receives for calendering, have, like all other prices, doubled, in consequence of the depreciation of the currency; and he has, therefore, in fact, obtained his machine for one hundred and fifty pounds. Thus, without any fault or imprudence, and owing to circumstances over which they have no control, the widow is reduced almost to starve; one workman is obliged to renounce for several years, his hope of becoming a master; and another, without any superior industry or skill, but, in fact, from having made, with reference to his circumstances, rather an imprudent bargain, finds himself unexpectedly relieved from half his debt, and the possessor of a valuable source of profit; whilst the former owner of the machine, if he also has invested the money arising from its sale in the Savings' Bank, finds his property suddenly reduced one-half.

These evils, to a greater or less extent, attend every change in the value of the currency; and the importance of preserving it as far as possible unaltered in value, cannot be too strongly impressed upon all classes of the community.

## TO THE EDITORS OF THE IRISH FARMER'S AND GARDENER'S MAGAZINE.

GENTLEMEN—I have observed with great concern that there has been in several parts of Ireland this year, a partial failure in the potatoe crop, and, moreover, that the failure is not confined to Ireland, as I have just received from an intelligent Scotch friend, of the highest respectability, and who has devoted much attention to the improvement of agriculture, the following communication:—"We are suffering grievously in Scotland, by a taint or disease in our potatoe crop. Every year this pestilential disease is spreading wider and wider its devouring ravages." And my friend expresses a hope that I am continuing the experiments which I had set on foot to discover the cause of the fatal malady.

I fully expected that the valuable information contained in the Essays "On the failure of the Potato Crop, and the best means of averting a recurrence of the evil," which obtained the premiums offered in 1834, by the Royal Dublin Society, and by the Agricultural Society of Ireland, would have proved effectual; and I feel confident that such would have been the case, if proper attention had been paid to those precautionary measures which were recommended. I sincerely hope that the authors of those essays have continued their researches, and will, as early as they may find it convenient, favour the public with their further remarks—meantime as an appendix to one of those essays, contains the results of some experiments which I made, I beg to submit to you some observations with reference thereto, and am chiefly induced to do so, from the conviction I feel that a *proper selection of potatoes for seed in autumn, and a careful preservation of them during winter*, are indispensable preliminaries in order to secure a good crop the ensuing year—and when it is considered that the greatest attention is be-

stowed by a succession of imported seed, to improve, or at all events to keep from deterioration, the various species of grain, it seems not a little extraordinary that the culture of potatoes should have been generally neglected to a degree almost sufficient to invite annihilation.

[The communication referred to by our esteemed correspondent is of so much importance at this time that we reprint it.—CONDUCTORS.]

Dublin, December 9th, 1831.

I purchased last March 30 cwt. of the most promising Scotch pink-eye-potatoes I could procure at the quays. A near relative procured from the same vessel, and at the same time, 10 cwt. and had them cut in the usual manner, and planted immediately, and they produced a good crop.

As my ground was not ready for planting, the 30 cwt. of potatoes I purchased were laid up in a heap on a boarded floor for about a fortnight, after which time as much of them was cut each morning as sufficed for the planting of the day; and the small potatoes were put aside by my desire from day to day, in order to be planted entire afterwards.

The ground allotted for the potatoes was rather less than an acre and a quarter Irish, was well manured, and seventy drills were opened therein. The cut potatoes were planted in sixty-nine drills, and the small whole potatoes were planted afterwards in the seventieth drill. A week elapsed between the planting of the first of the cut potatoes and the planting of the whole potatoes. The sixty-nine drills proved nearly a failure; nevertheless I suffered such plants as appeared to remain, and had mangel wurzel sown in the vacant spaces. The result of the potatoe crop was, that the sixty-nine drills of cut potatoes produced sixteen sacks, or about 32 cwt of potatoes, and the seventieth drill three and a half sacks, in about 7 cwt. so that, whilst the sixty-nine drills of cut potatoes produced little more than the quantity of seed planted, the seventieth drill of whole potatoes yielded at the rate of nearly twenty tons per acre.

I had for some time been of opinion, that the partial failure of the potatoe crop complained of more or less for the last few years, and particularly where the seed had been imported, had arisen from the potatoes not having been properly matured in consequence of late planting, from their having heated in the pits where they were deposited, or in the vessel, or from exhaustion by vegetation previous to planting; and I was desirous to ascertain whether a security could be found in planting the whole potatoe, and the result of the experiment warrants the inference that unless the vegetating principle be destroyed, this plan may with confidence be adopted.

The failure in the present instance I consider to have arisen in consequence of the potatoes having been so much exhausted by vegetation, and perhaps by partial heating, as not to have had sufficient stamina to vegetate properly or generally when cut; for it may be observed that decay commences on the cut side, and extends to and destroys any roots that may have been formed, should they not have acquired sufficient strength and become independent of the parent set.

Some persons have supposed that the old kinds of potatoes have degenerated, and that security can only be found in the introduction of new sorts; but I made an experiment nearly similar to that I have described with a new variety of potatoe recently imported from South America. I considered this description to be a late potatoe; but early in April, on opening a pit in which a quantity of them were

deposited, I found they had vegetated in a considerable degree. I had a quantity of them in this state cut and planted, taking care not to plant the bottom part of those potatoes—having observed that this part did not vegetate the preceding year. The yield of these potatoes was inconsiderable, both as to size and quantity; but the produce from the remainder of these potatoes which were planted whole, (but not until a fortnight afterwards,) was such, as to realize all I had heard of the productiveness of this species; and as to size, some of them were from four to five pounds in weight.

As a proof of the dependence that may be placed even in the smallest potatoes, if sound and planted entire, I have to mention, that observing some potato plants to appear on ground which had been under potatoes last year, I had forty-eight of these plants transplanted on a small piece of ground, containing three-sevenths of a perch; eight of the smallest of these plants, some of them proceeding from potatoes less than that a marble, were placed by themselves.

The 8 plants produced 12 lbs. of potatoes.  
The 40 do. do. 43 lbs. do.

48 plants produced 55 lbs. being at the rate of 128 lbs. per perch.

These were cup potatoes, and the produce was, under the circumstances, considerable, and would have been greater, but the larger plants were injured by the wind; to which may be attributed their not having being so productive as the smaller ones. Cases may occur when it may be found useful to resort to the transplanting of potatoe plants, and particularly if effectual means shall not be discovered to prevent failures in the crop. But I feel confident that if proper attention be paid to the selection of good matured seed, to its preservation during the winter, and to the timely planting of the respective kinds, at that period which nature points out by the appearance of vegetation—that crops as good as any we have heretofore had may be expected from proper culture, even although the practice of cutting the seed be persevered in in such cases. But if all the circumstances referred to do not apply to the seed at the time of planting, the best security against a failure will be found in planting the whole potatoe. I entertain, however, sanguine expectations, that the most favourable results will arise from the researches which have been instituted, and from the great interest the subject has excited, and consider that so far from a diminution in the produce of this valuable root a great increase may be looked for, if due attention be paid to the treatment of potatoes intended for seed, and if the planting of the entire potatoe be adopted. As a certain mode of procuring good sound seed, I would strongly recommend that a quantity of potatoes be every year raised from the seed of the most approved kinds. I had this year from a perch of ground under seedlings of the white apple and pink-eyed species, 102 lbs. of potatoes, which I confidently expect will next year yield me from one to two tons of potatoes, superior for the purpose of seed for the following year to any I should be able to procure.

It will be perceived by the statement referred to that 30 cwt. of Scotch pink-eye potatoes were planted in seventy drills, whereof the sixty-nine drills under cut potatoes produced but 32 cwt. whilst the seventieth drill under small whole potatoes produced 7 cwt. All these were suffered to remain in the ground until they were perfectly ripe, and were then properly secured in a pit as seed for the following year.

The large South American potatoes alluded, and

the seedlings also were suffered to mature, and were likewise preserved for seed.

The experiments of 1834 having thus proved that the planting of the whole potato ensured a good crop in cases where a failure would otherwise have occurred, I caused the above 39 cwt., the produce of Scotch seed, as well as 50 cwt. of actual Scotch seed purchased at the Quay, to be planted in March, 1835, without having been cut. They were however sorted, and a number of drills of large and of small potatoes were alternately planted, in order to ascertain the produce from the respective sizes. All these potatoes gave a good crop, and there was not any perceptible difference in the yield of the Scotch or Irish seed; or of the large or small potatoes. But on the potatoes being dug there was not any trace of the Scotch seed, whilst the Irish was in many instances so sound, after having performed its functions, that although it was far advanced in autumn, I planted some under the impression that it would again vegetate. A few failures occurred in the Scotch seed, and on searching for the cause, it was found that the potatoe had been cut by the spade or plough; and from this circumstance it may be inferred, that had these potatoes been cut, a general failure would have been the consequence. The South American potatoes were planted whole in the spring, as soon as they showed signs of vegetation, and in alternate drills of large and small; and here, also, there was not any perceptible difference between the growth and produce of the large and small seed. I had kept in the house one potato of this description, of a remarkable shape, and weighing 5lbs. This was cut into ten pieces, all of which vegetated so luxuriantly that the plants could not have been distinguished from the rest had they not been particularly marked; and it thus appeared, that this variety, if properly matured and preserved, may with safety be cut, if planted at the proper season: and having found this description very productive, and although large, yet of good quality, I left a considerable quantity to mature as seed for the ensuing year.

With respect to the seedling potatoes which weighed 102lbs., being the produce of a perch of ground, they were all planted whole, and succeeded well, having produced 17 cwt. or about 19 fold. These were likewise preserved for seed.

From the success that attended the planting of the small whole potatoe in 1834, and the chance plants from the smallest seed, 48 of which transplanted on 3-7ths of a perch, produced 55lbs., I determined on saving a small quantity of small potatoes, the refuse produce from the Scotch seed termed "hazards, and small," as they were perfectly ripe at the time of digging—and the market price of such was only from 8d to 1s per cwt. These were planted in February, and although the season has been decidedly unfavourable they promise well; and that you may judge of the soundness of this seed, I send you specimens thereof, and of the produce—I would in particular direct your attention to a cluster of young potatoes, in number twelve, formed above the parent and together with it firmly attached to the roots. You will perceive that several of the young potatoes are already double the size of the original, which clearly indicates that the diminutive size of the seed does not descend to its offspring; you will also perceive that the seed, instead of having been exhausted by having remained so long in the ground, and by having fructified, is so sound that a person unacquainted with the circumstances,

would suppose that it had never been planted.—It appears, in fact, capable of producing a second crop. But I am sorry to have to remark, that even these potatoes if cut, would not have resisted the late inclement, and as regards potatoes, ungenial season, as a few of them were cut by way of experiment, and planted apart—but they did not vegetate; and it may, I consider, be inferred that the pink-eye potatoe is a species which if cut, will not succeed except under favourable circumstances.

The South American potatoes were planted early in March, and cut, with the exception of the small, which were planted whole. All these occupy about one acre and a half of ground, and present throughout the most luxuriant appearance. But had the planting been deferred as in 1834, until the potatoes were exhausted by vegetation in the pits, there would, I doubt not, have been again a failure, in such portion as was cut. I have carefully examined three Irish acres of potatoe gradually planted this year from the month of February to the month of June, and the crop is uniformly good, with the exception of a few ridges of Bangor and of black potatoe, raised from the produce of 1 cwt. of each which were planted on the 23rd and 29th of March, 1835, in common with other kinds, to ascertain their respective produce. They were not taken out of the ground until late in the season; were carefully preserved; were planted whole in February, and early in March, and the plants in both cases are, with very little exception, curled. I cannot otherwise account for the curl, than from the seed of which they are the produce, not having matured, in consequence of late planting as regards these kinds, but purpose to retain a quantity of each this year for seed, in order to ascertain whether the curl is hereditary, or whether the disease will cease, if by early planting the seed be allowed full time to grow as well as to mature; and this leads me to an observation as to seedling potatoe, that great care should be taken to separate the early from the late kinds, as from the same bed some plants will be found to vegetate very early, whilst others are extremely tardy in their growth.

Having thus stated the results of my experiments, I shall just mention, that a neighbour who is extremely particular in the management of potatoe purchased this year 2 cwt of Scotch seed from the quay,  $1\frac{1}{2}$  cwt of which he planted whole, and has the prospect of an excellent crop, whilst the remaining half cwt., being the largest, were cut, and of these only about one set in every six vegetated, and those so weakly, that on examining their roots there appeared but a potato, or rather abortion, the size of a pea, at the extremity of a small fibre.

My experiments of 1835, as well as those of the present crop, strongly confirm the opinion expressed in 1834—that “*if proper attention be paid to the selection of good matured seed—to its preservation during the winter—and to the timely planting of the respective kinds at that period, which nature points out by the appearance of vegetation,*” crops as good as we have hitherto had may be expected from proper culture, even although the practice of cutting be persevered in. But that if all the circumstances referred to, do not apply at the time of planting, the best security will be found in the whole potatoe.”

I have to observe, as the result of further experience, that even with the greatest care, as to the seed of some descriptions of the potato, con-

fidence cannot be placed in their success if cut, although if the season be favourable they may succeed. In order to ascertain the stamina of potatoe intended for seed, some of them should be cut in autumn previous to their being deposited in the pit, and if the cut potatoe be firm and sound on opening the pit in spring, the potatoe of which they form a part may be cut for seed, but if soft and bearing indications of decay, it will not be safe to cut them. In purchasing imported or other potatoe for seed, such of the parcel as may have been accidentally cut should be carefully examined, as their condition is the best criterion of the general strength of the seed.

I would strongly recommend, as an economical and prudent measure, that the cultivator of potatoe should lay aside, in autumn, for the express purpose of seed for the following year, a quantity of “*hazards or small potatoe,*” from such descriptions as he may desire to cultivate, and from such part of the crop as has been early planted, and is properly matured. Each kind should be kept separate, and put in a narrow pit well circumstanced, and too many should not be placed together, lest they should heat.

It will of course be necessary to change the seed from one description of ground to another, and occasionally to introduce fresh seed, as in the case of grain. It appears also desirable to raise new varieties from seed, which practice I continue, and find that from 100lbs to 112lbs may be obtained the first season from a perch of ground, and an increase of nineteen fold the second year, which probably exceeds what could be procured by any other means.—In preparing the seed the pulp of the potato apples which have been selected for the purpose, should at about the month of November be put into a vessel of water, and the aqueous particles afterwards strained through a cloth. The solid parts which remain should be dried in the sun, and the seed can then be very easily separated. It should be sown in April, on a well prepared bed, and transplanted in showery weather when sufficiently strong in drills, the plants about six inches asunder and the drills twelve inches apart.

It is evident that we have not availed ourselves of the extraordinary resources which nature has afforded for the cultivation of this valuable plant, or we should not have to complain of a failure in the crop.

A thorough investigation of the subject will, I doubt not, fully establish, that the fault is our own, and that the preventive means are simple, and within the reach of all; as to the practice of leaving the seed exposed to frost, or the seed and manure to the parching sun, as if the intention were rather to congeal, or to bake the potato, than to promote its vegetation, however irrational such practice may be, it is but too common, and may be regarded as a further trial to which this naturalized Exotic, so deserving of our care, is wantonly subjected.

Dublin, 23rd July, 1836.

L. C.

#### SAVING OF FLAXSEED, &c.

One important fact is now completely established with respect to the growing of flax, which is, that the home sown seed is equal to the best foreign for sowing; as every report we have heard agrees that the crop from the Irish seed this season is generally equal to that from the foreign, and in many instances superior. Another most valuable fact is likewise



nearly confirmed, viz., seed saved and sown from year to year on the same farm, will continue to improve the quality of both seed and flax for a number of years; of this we have proof in several cases from six to twelve years. It may be said that this is contrary to the established rule with other seeds in this country, where frequent changes are requisite; however, an exception in favor of flaxseed may be accounted for from the circumstance of it not being a native plant, and that it requires a number of years to bring it to perfection in our comparatively cold climate. The summers of America, Egypt, Sicily, and also the countries on the continent of Europe, where flax is grown, are all warmer than ours during the period of its growth.

Besides the above highly important considerations, it should also be generally known that flax may be dried on the field like oats or any other grain, stacked till the following spring, the seed thrashed out, and the flax watered the first moderately warm weather. By this treatment, the quality of the flax will be at least as good as that watered green from the field, the fibre will be stronger, and stand the preparation for the mill-spinning better than the softer and less ripened flax. This mode of treating the crop will enable every grower, large or small, to save the seed, who chooses to lie out of the money for six or seven months, at the same time it will pay ample interest for the delay of return.

It may be useful to growers to observe, that formerly most people pulled the flax too soon by a week to ten days; perhaps the unripe plant yields a softer and more silky-like fibre, and suited the rock-spinning better, but it is now admitted by many mill spinners, that the ripe flax stands the several operations of dressing with less loss to the consumer.

Now on the eve of pulling the flax, every inducement to save the seed should be made public. Every hogshead of seed sown will yield from four to seven hogsheads good seed fit for sowing,\* and for crushing for oil; besides the *drawings*, which are better than bran, weight for weight, for feeding cattle. The linseed cake or linseed meal is still better for feeding, as the oil, which is in some degree purgative, has been pressed from the seed, leaving the cake the most nutritive substance of any thing we know, for cattle of all kinds. Two pounds of the cake, ground to meal, moistened with cold water for eight to twelve hours, then diluted with warm water and given to calves two or three times a day, will make them thrive better than eight to twelve quarts of milk. The expense of the meal is not quite 2d., while the milk is worth 9d. to 1s., so that there is a saving of 7d. to 10d. per day in feeding each calf. After the few first feeds, there is no use in giving milk.

Another very profitable way of using Linseed Cake is practised by some intelligent graziers in Scotland. When they put the beef cattle out to grass, they continue to give the cake till fit for the butchers, which is a month to six weeks sooner than without the cake, thereby not only having the cattle early at market and getting a high price, but also saving greatly in pasture. About 4 lb. of the cake daily is sufficient for a bullock on the grass.

L.I.N.U.M.

\* Say that 40,000 hogsheads were sown this season in the North of Ireland, and that the whole produce in seed would be saved, there would, at the average of five hlds. to one sown, be 200,000 hlds. which, at the low price of forty shillings per hld. would be 400,000*l.* saved to the country! and this enormous sum is thrown away, by inveterate habit combined with indolence.

## AN IMPROVED MODE OF THATCHING.

COMMUNICATED BY ——— CHURCHILL, ESQ., OF DORCHESTER.

The Somersetshire mode of thatching is preferable to all others. It consists in using unbruised straw, provincially called reed, instead of bruised straw with the ears on it. The practice of Devon, Dorset, and Somerset, in this respect, is an example to all England, which we are surprised has not been more generally followed, as it lasts nearly as long again as common straw, and does not offer the temptation arising from grains of imperfectly thrashed corn, which induce mice and birds to infest the dwelling and make holes in the thatch. The mode of preparing the straw is simply to take a sheaf of wheat and to place it in a reed-press, made of two pieces of timber ten feet long, put on a stool, and having women to lay hold of the ears of corn, who draw out the straw and cut off the caps, and then binding up the sheaf for use. In this process women are usefully employed in wet weather, and the corn is much more easily thrashed when in short ears than when encumbered with the straw. The thatching work done with the reed will last ten years longer than that done with the common straw, and as to the appearance there is no comparison; one is an elegant neat covering, and the other a slovenly ragged one. Many gentlemen, possessing fancy cottages and rural habitations, have been so struck with the neat and picturesque appearance of the cottages in the three western counties, as to have sent for persons to prepare reed for them in the counties where their dwellings are situate.

There is another advantage also to a farmer, that the reed when carefully taken off hay or wheat-ricks may be tied up and used again a second year; and this in pasture counties, where straw is scarce, is no small consideration. It is usual for landlords to pay for the drawing of the reed by the hundred sheaves, in consequence of the superior durability of the work, as it is considered to endure beyond the ordinary term of a lease, and therefore contributing more to the interest of the landlord than the tenant.—*Baxter's Library of Agricultural and Horticultural Knowledge.*

## THE ALLOTMENT SYSTEM.

TO THE EDITOR OF THE YORK CHRONICLE.

SIR,—One of the most portentous characteristics of the present age, is its concentrating centralizing principles. The careful observer of the history of mankind, and of the peculiar features of our age, cannot see the rapid advancement of these principles but with terror and alarm;—alarm for our national existence, and constitutional independence; for though the evil may not break forth in the present age, yet the seeds of the elements of dissolution are sowing, and without some daring and patriotic stand is made in asserting sound principles, the most dreadful consequences will follow. We are rapidly proceeding to a state of feudalism; the yeomanry, the peasantry, are hurrying on to vassalage; a certain class are assailing the ancient aristocracy with a view of destroying the last remains of our nobility, as the necessary step for their own despotic aggrandisement; and political disunion, anarchy, confusion, revolution, and finally degrading slavery, will follow. A recklessness of the welfare of this nation, so

strikingly manifest in public sentiment and private practice, is the immediate precursor of this. There are those who, if they would not make us a nation of shopkeepers, would, to serve their ends and principles, convert us into a joint-stock manufactory, and rejoice to see not a sheaf of wheat grown in the country. There are also, on the other hand, those who would grasp the agriculture of the country into a few hands,—a preparatory step to its annihilation; who would pauperize and degrade our yeomanry and peasantry; and next overawe and overturn the landed aristocracy; while the rival interest would mechanize the frames of infantile slaves, and crowd hundreds of *human machines* into hot, infected, and unhealthy steam mills,—all, all sacrificed to the Moloch of wealth.

What must be done? what can be done to maintain the "bold peasantry," as "their country's pride?" not to debase them by sending them to congregate in the district workhouse, but to give them an interest in the country, to arouse a spirit of independence, to excite habits of honest industry, alike favourable to morals and happiness—and what is national happiness but the happiness of the individuals of whom it is composed? To effect this, I propose the allotment system, as well as to arrest, or if possible counteract, the monopoly monster, the British locust cloud.—Let each individual who is desirous of doing something for himself and family, have his two acres, his one acre, or his rood of land, according to his capabilities. Let him have a fair start in the world, and if it does not make all happy and industrious, at least it will all who are so disposed, and be a punishment, deep and permanent, to the idle, the dissolute, and the abandoned; it will at once stamp them with the mark of worthless, open and visible to the world, and therefore the more deep felt and galling.

The allotment system would produce a spirit of union between the different grades of society. At present a lamentable spirit of opposition prevails between the labourers and farmers; witness the recent fires and riots in the southern counties—every method of parish economy is considered as an oppressive measure towards them, and they having nothing to lose in the country, but every thing to gain by disturbance and revolution, and an ill affection to the powers that be is the consequence. But once make them tenants and give them an interest in the soil and poor rate, and they will at once feel their own interest to be the safety of the state and the reduction of the parish burdens, and instead of looking to the land to support them, through the industry of others, they will expect it from their own exertions.

It will stimulate to industry and honest independence. At present the labourers have little to occupy their minds, and they assemble, after their work is finished, in the street corner, or in each others' houses, and talk over the scandal of the parish, and mutually excite their passions and dissatisfaction; too frequently do these meetings adjourn to the public-houses and beer-shops—vile associations poison the mind, and more and more alienate the feelings of the labourers from their masters. Poaching parties are concocted, petty robberies are planned, incendiarism in the excited moments is broached and perpetrated,—and the consequences are a debased and disaffected population.

It would bring up the children in honest habits of industry. If children are reared up in idleness, in idleness or theft they will grow up, but if early taught that their future welfare depends upon their own exertions, they will become useful members of society. Give each deserving man his patch of land

according to his capabilities, and his children, from the oldest unto the youngest will be in constant employment, and with their work will associate the idea of providing for their wants; the more their industry, the greater their comforts. One will dig, another will hoe, another will collect the wasted manure from the roads, and a fourth will hand-weed, indeed all will be brought up in careful and labouring habits, and will early be induced to think for themselves, and instead of having their principles corrupted by evil associates, and their habits ruined by idleness, they will be trained by education for filling creditable stations in society.

It will prevent emigration. Emigration is at best a curse; we lose the producers, but keep the consumers! it is galling to leave our native land, and once show a man that he can live and thrive here, and he will remain; while the surplus labour will be swallowed up by the extra work which will be bestowed on the little allotments.

A word or two on management. Part of the land would be considered a garden, to grow onions, cabbages, carrots, salad, &c.; the rest the farm, half to be planted with potatoes, the rest sown with wheat, and allowed to alternate or rotate, for it will be found that under the cottager's careful cultivation, and the extraneous manure, the land will be kept in fair condition; he may however sometimes substitute a crop of barley, for a change. He will be expected to pay the full rent of the land, and consider himself under no obligation to any one for it, and must bear his fair and proportionate share of the taxes, which he will thus feel an interest in reducing. To effect this let the large farms, exceeding 150 acres, be reduced, and divided amongst the labourers, who are desirous of becoming tenants, and the whole of the rents collected, and the overlooking of it managed by a person appointed by the parish.

I would earnestly call the attention of the land-owners, farmers, and parishes to this plan, as being infinitely preferable in every respect to the workhouse system.

W. E. N.

## IMPORTANT TRIAL.

(FROM THE VETERINARIAN.)

A cause very important to the farmer and the veterinary surgeon was tried at the Nottingham Assizes on the 24th ult. We present our readers with the substance of it.

The plaintiff, Mr. Jackson, of Stapleford, near Nottingham, was owner of several parcels of meadow land, through which ran a small stream of water of excellent quality. It was called the Syk brook. Near its source is a *cromlech* in unusual preservation. It is one of the most perfect Druidical remains which the midland counties possess; and a legend is attached to the brook, that in days of yore, the sick used to resort to this spot, and, after certain Druidical incantations and ceremonies, and drinking of the water which ran beneath the cromlech, they were cured of all their diseases. However this might have been, these meadows had been in the possession of Mr. Jackson's family for some centuries, and the cattle had always done well.

Thirteen years ago the defendant, Mr. Hall, erected some buildings for the manufacture of starch near the brook, and above Mr. Jackson's meadows. No change was observed in the water or the condition of the cattle for the first two or three years; but at length the water used in the manufacture of the starch found its way into this

brook in considerable quantities, and then the milk of all the cows rapidly diminished, many of the cattle became seriously ill, and in the course of some years no fewer than twenty-six of them died, and all of a disease accompanied by nearly the same symptoms, and the fish and the frogs which had peopled the brook all died.

In the manufacture of the starch the wheat from which it was obtained was first ground. It was then macerated in water until the gluten was dissolved and the starch precipitated, and the bran was left floating in the tank. It had now undergone very considerable fermentation, and the whole mass was in the highest state of putrefaction, and exceedingly offensive both to the taste and smell. The liquid containing the dissolved putrefied gluten was now drawn off, and was preserved for sale. It was supposed to be an excellent manure, and for a while there was considerable demand for it; but at length it lay upon hand, and was thrown away, and took its course down a ditch into the Syk Dyke, and that, occasionally in a quantity greater than the original stream.

The bran underwent various washings, and, being sufficiently cleansed, was given to the pigs.

The starch, however, required another process in order to fit it for use. The smell which hung about it was to be taken away, and the starch was to be bleached. For these purposes a solution of the chloride of lime was employed, and when that had done its duty, it too was turned into the stream.

Sulphuric acid was also used in considerable quantities, in order to perfect the manufacture. That also ultimately found its way into the water-course.

At length the defendant yielded so far to the remonstrances of the plaintiff as to construct a *sough*, or circular tiled drain, through the plaintiff's grounds, by means of which the poisoned water was conveyed to a river at some distance, the volume of the stream of which was supposed to be so considerable as not to be materially affected by admixture with these deleterious ingredients.

This being effected, the fish and the frogs began to return to the brook, and the weeds grew on its banks, and the mortality seemed to cease among the cattle; but the defendant refused to make compensation for the cattle that were previously destroyed. In order to recover this compensation an action was brought. The following is the substance of the evidence:—

Eliz. Jackson, sister of the plaintiff.—Has known the water-course which runs through their premises more than forty years. In 1823 a starch manufactory was erected in their neighbourhood. The plaintiff had eight closes, through which this water-course ran. These closes usually contained the dairy cows, from fifteen to twenty in number. There was no other water for these cows but from the water-course, except when they were driven into the farm-yard in order to be milked. Before the erection of the starch manufactory the cows did well; afterwards they were evidently affected by the water.

The first cow died in 1828. She had detected a difference in the water long before. It looked very dirty. It was white sometimes—a film or scum then came upon it, and there was a great sediment at the bottom, of a black colour. It was very good water before—perfectly pure—used for domestic purposes, and the cows did well. In 1828 three cows died, and a calf; in 1829, two cows; in 1830, six cows and two calves; in 1831,

one cow and two calves; in 1832, four cows and two calves; in 1833, six cows; in 1835, one calf; and in 1836, two cows and one calf, making in all twenty-four cows and nine calves, the value of which was £384 3s.

The fish in the pond through which the brook ran died about the same time, viz. 1828. They were perch, gudgeon, pike, roach, and dace. The frogs, and even the weeds, died in the water-course. Now that the water from the starch mill is turned away, the fish, and frogs and weeds have returned to the brook.

The symptoms of illness were these:—The cow began to look thin, and that for three or four months; her coat was rough; her milk went almost from the first. She then began to purge; blood mingled with the fæces, and at length she died emaciated and exhausted. All the cows had similar symptoms, and the illness usually lasted from six to eight months. In the last two that died the illness was of longer duration. The last two were opened; one by Mr. Grieves, a surgeon, and the other by Mr. Grieves and Mr. Pyatt, a veterinary surgeon.

The cows occupied these pastures, except in eddish time, which was about five or six weeks. The cows gave more milk and looked better in eddish time than when on these pastures.

The diminution of milk since the erection of the starch mills was at least two or three quarts daily from all of them, whether sick or well. The value at 2d per quart amounted to £650.

There is a trough in the milking yard. When the cows were brought up to be milked they showed a marked impatience to get at the water, much more so than before. Others of the cows looked very ill, but did not die. Since the water from the mill no longer comes to them, they give more milk and look better.

The water smelled badly before 1828, and so on until the *sough* was made.

She then produced some bottles of water taken that morning: one bottle from the brook, good; one from the *sough* now made to carry away the water coming from the starch mills, and one from the pond above. They were so highly offensive that they were ordered out of court as quickly as possible.

Cross-examined.—Mr. Hall keeps a great many pigs about 100 yards from the commencement of the new drain, and that drain carries all the filth from the pigs. Always has kept an almanac, containing the list of casualties and deaths. They had comparatively little illness or death before the erection of the manufactory, and the illness which they had was not at all like this. She recollects particularly one heifer that died. None of them died of calving. The one that died in the last spring aborted, and died soon afterwards; but she had been ill long before.

Kept many ducks and geese; and the horses drank of the same water as the cows.

Re-examined.—One of the bulls died last year, but not with the same symptoms. He died from eating too many potatoes. Another died about a fortnight ago, and with the same symptoms as the cows, and was examined by Messrs. Grieves and Pyatt: he had been ill since last summer. He was always in the field.

Thomas Gresley is 80 years old; has lived all his lifetime at the village through which this brook passes, and knows it well. Occupied land through which this brook passed; but he has a well or spring separate from the brook, from which his

cattle drank. The brook once contained as good water as ever was drunk, and supplied a great many people in the village with water. It is now spoiled, and not fit for man nor beast. There was a scum at the top, and it is black at bottom, and it smelled like any nuisance. Cattle did well before the starch manufactory was built. There used to be fish in the brook, but the starch water killed them all.

Cross-examined.—A great many houses have been built on the brook. Does not believe that the filth from any of them runs into the brook.

Re-examined.—The brook is very shallow. The houses are at some distance from the brook, and the nuisance in the water is above the houses as well as below.

Edward Aspinshaw.—Was a butcher at Stapleford, and is 88 years old. He and his father had ground by the water-course: the cattle drank there, and had nowhere else to drink. His cattle always did well. Now it is thick and bad; he can smell it very easily—his nose is not hurt. He lived servant to one farmer 11 years, and his cattle run on that ground, and had that water only to drink, and they did well. He has bought beasts that fed on that ground—they were healthy and well.

John Barton.—Lived 44 years there—knows the stream—had a close through which it ran. The water was very good, and the cattle did well. Since then there came a scum upon it, and settlings as black as mud; and a very bad smell. Should not think it healthy for cattle, or for anything else. He made a pool to catch water for his cattle to drink, that they might not go down to the water-course. Has had two colts there injured very much by the water. He removed them, and they got well; but it was six or eight months first.

Cross-examined.—Grazed sheep and calves principally there, because he thought they did not want so much water. He had occasionally horses, but they were in and out as occasion served; but the two colts were out night and day. When they were ill he gave them plenty of good stuff to eat and drink. They fell off in their flesh. Had not been over-stocking,—he had eight or ten sheep and five heifers, with the colts.

Re-examined.—Mr. Jackson did not over-stock his land, so far as he knows of.

John Smedley.—Has a close on the water-course. Gives the same account of the water. He used to turn his cows there in eddish time. The cows many a time refused to drink the water, and he took them home to water. His cattle did not do so well there as in the homestead. In 1831, a cow became ill, and he killed her to save her life. She purged very bad. Coat stared. That was the first thing he saw: did not eat well. He then took her home, and she was killed in his presence. She was as poor as a crow, for she had given over eating. She had a dead calf five days before she died. He laid the disease to the water. He has turned his cows on the eddish by the side of the brook this year, because the sough is made, and the water is become good. There is nothing to injure the water except the starch manufactory.

David Gresley.—Lived there all his life, and is 49 years old. He gives the same account of the water. His cattle did well before the manufactory was made; but afterwards they were much disordered in their bowels, and he thought they were going off. They were partly supplied with water from the stream and partly with some fetched from home. The water was always worse on a Monday

C. Geldeny.—Worked for Mr. Jackson 21 years ago. All his cattle turned into the closes near the water did well. Worked at the starch manufactory the first two years after its erection.

He gave an account of the starch manufactory, and said that the water from it stunk like carrion, or worse than carrion. There was more of this filthy water in the water-course than of the original pure water.

Mr. Hall kept cattle of his own. Water was always put into troughs for them, but they could get at the bad water if they pleased.

Cross-examined.—The bran that had lain fourteen days in the water was sold for horses, cattle, pigs, &c. Mr. Hall kept a vast number of pigs, and a vast number of them died. They were fed with the bran or slimes, and he gave up keeping the pigs because he had bad luck with them. Mr. Hall sold them to Mr. Drew, but he did not take them all home, because a great many of them died. The bran and slimes were afterwards washed more with fresh water, and the pigs did better.

Samuel Harding.—Lived with Mr. Jackson from November 1824 to November 1833. He knew the course from a boy, and described the change in the water. While he was in Mr. Jackson's service six cows died, and two calves. They pastured by the water-course. He *dressed* (opened) all the six cows himself. Their coats were considerably rough, and they had become considerably thin and low. The bowels had been loose, and they were discoloured from the long running out. While living they gave less milk than they ought to do. His next master had beasts pasture on the same stream; but he railed it away, so that they should not be able to drink. Jackson kept his cattle well, amazingly well, and gave them plenty of good hay.

Thomas Sutton, servant to Mr. Jackson twelve years.—A vast many of his cows died, thirteen or fourteen. Was sent by his master to Mr. Hall with a discharge for letting his water down the dyke. Two years afterwards went again with a second discharge. Went again in March last, and asked if he would be so kind as to come down and look at a cow that lay dead. He said that he would not come. He asked him to send another person; he said he would not, and he did not care if they all died.

At a corner of one of the fields, and close to the brook, and on the other side of it, was a tank, which the cows could get at with some difficulty—they used to go there and poke their head through some rails in order to drink of it rather than of the brook; and he does not think that any water from the water-course could get into this tank—he has often drunk from this tank.

John Whalley.—Occupied a close by the side of this water-course eighteen or nineteen years. As good water as ever cattle drank, and they used to enjoy themselves in it. After the manufactory was established it became bad. Lost a yearling calf there, and he removed the rest. This was three or four years after the establishment of the manufactory. They dwindled away, and had bad looseness. Same symptoms as Mr. Jackson's. Made a drain to avoid the tainted water, and got pure water from a spring, and then his cattle did well. Often complained to Mr. Hall; he turned the water one way, and then another, until every place became full, and then it pursued its old course; and Jackson's cattle were compelled to drink from this water. Many yearling calves are certainly lost from purging, without water of this kind.

John Turner.—His father sold the premises on

which the manufactory stands to Mr. Hall thirteen or fourteen years since; there was then no communication by which water could get into the Syk Dyke. It has been made since.

William Dudmore.—Lived with plaintiff five years from 1826. Cows did well before the water came down from the manufactory, but soon began to be deficient in milk from two to three quarts a day. Occasionally turned the cows into the eddish and they then did better; ten cows and two calves died while he was there. Same symptoms. Had plenty of food.

Cross examined.—Cows always freshen upon the eddish to a certain degree; and when they return to the old pasture, still the quantity of milk continues, if the pasture is good.

Elizabeth Warren.—Knows the water twenty-five years, and formerly used it for tea; could not for awhile; now looks as good as before, but has not tried it again.

Joseph Beadnall.—Lived with plaintiff in 1828-29. Two cows died; saw them opened; the whole of the stomachs quite rotten. Symptoms the same.

A statement of the duties paid on the starch manufactured at the mill was put in, in order to show that the mortality was proportionate to the quantity of starch made at different times.

Aug. Grieves, a surgeon at Nottingham.—Analysed the water. Has often been thus employed.

He produced some water from a pond on Hall's premises, taken June 29. It contains a great quantity of putrid vegetable matter, and muriate of lime formed by the exposure of chloride of lime to the influence of air and water. He analysed more afterwards: it varied at different times—both in the quantity and nature of the ingredients. Always the muriate of lime, sometimes chloride, sometimes sulphuric acid, and sometimes acetic acid—these vary to the amount of one-half.

Another water, taken from the dyke crossing the lane immediately below the pond. Contains always a larger quantity of putrid vegetable matter—with a trace of animal matter in a state of decomposition, and also muriate of lime—never detected the chloride of lime.

A third portion was taken from the brook as it now is. It is excellent water.

Examined the water course before the sough was opened, and at other times; found the same ingredients, but less in quantity than in the ponds.

The effect of such ingredients on the human frame is that of an irritant poison. It would be the same as described by witnesses with regard to cattle. He examined a cow and a bull. The internal coat was darker than usual—numerous patches of inflammation were found in the whole length of the alimentary canal.

On the 28th of March last he examined another beast with Mr. Pyatt. The appearances were the same, so far as regards the disease in question. He has no doubt that the loss of the cattle was produced by drinking the water.

Mr. J. Pyatt, veterinary surgeon.—I saw a cow of the plaintiff's on the 27th of March last. She was in a dying state. She died. The intestines were highly inflamed through their whole extent, and ulcerated in many places. Has no doubt that the disease was produced by the water. Inflammation might arise from various other causes, but not connected with this peculiar train of symptoms.

Mr. Pereira, Lecturer on Chemistry at St. Bartholomew's Hospital, had likewise analysed these waters, as taken from the Syk Dyke in its present

state, and from the sough, and from Mr. Hall's pond. The first was pure—the others contained a considerable quantity of muriate of lime, and were loaded with putrid vegetable matter. Whether the frequent presence and action of these deleterious substances on the mucous membrane of the intestines, or their necessary influence on the constitution generally, were considered, there could be no doubt that the mortality among these cattle was to be traced to the empoisoned water.

Mr. Youatt has heard the whole of the evidence. With some slight variation in the different cases, he plainly recognizes, in the disease described, the dysentery of cattle. The usual symptoms of dysentery are, a rough and staring coat—diminished secretion of milk—loss of appetite—loss of condition—purging which bids defiance to all medicine—mucous, and, at length bloody purging—and then death. In the accounts of the appearances after death, given by Mr. Grieves and Mr. Pyatt, he recognizes those of dysentery, but in an aggravated form. There is no doubt that the disease was produced by the deleterious influence of the water.

Verdict for the plaintiff, £270 damages.

I regard this as a very important trial, and deserving a place among the records of veterinary medicine. There can be no doubt as to the character of the disease. It was, at least in its last stage, the dysentery of cattle, but in a more than usually aggravated form. It was not merely inflammation and ulceration of the large intestines—the usual distinguishing characteristics of dysentery,—but these lesions extended through the whole of the intestinal canal. A more powerful agent than can be generally traced was here employed—the water of the brook was surcharged with deleterious matter.

The chloride of lime, although in small doses it may occasionally be employed with advantage in the treatment of the diseases of cattle, and particularly of this disease, must, when frequently and habitually drunk, produce much and perhaps fatal inflammation of the mucous coat of the intestines: but the prime agent was the decomposed vegetable matter which the water contained—the gluten of the wheat in the highest state of putridity. Putrid vegetable matter is one of the most destructive sedative poisons that is known, and under whose fatal influence every vital action is diminished—every function impaired or suspended.

How accurately do these unscientific witnesses describe its progress. The animals scarcely drink of the empoisoned stream ere the coat becomes rough and staring—the insensible perspiration is diminished or ceases. The quantity of milk is lessened—each cow gives from two to three quarts less every day. So far as this secretion is concerned, every animal—those that are ultimately lost and those that have strength to bear up against the depressing influence to which they are subjected—every animal exhibits the character and power of the poison. They who are accustomed to cows begin to look somewhat fearfully around them when the milk diminishes; and if it becomes suspended, they are perfectly assured that danger or death is at hand. The appetite is impaired: in frequent or continual contact with a fluid so nauseous and debilitating, can the villous coat of the stomach retain its healthy character, or will there be a desire for or relish of food? The loss of condition—the rapid wasting is the natural and necessary consequence of diminished ingestion of

food, to say nothing of the Lethean influence of the poison on every organ concerned in the digestion of the aliment. Then,—not at first—say the witnesses, comes the purging, the consequence of the long-continued presence of the poison in the intestines—the consequence of the general impairment of the system—the indication of the breaking up of the constitution.

There is a peculiarity about cattle subjecting them to the fatal influence of agents like those whose mischievous course has been here traced. Cattle are destined to supply us with food while living, as well as after death. The greatest quantity of food, and the greatest profit to the owner, are yielded while they are living. To fit them for this, nature has given a digestive apparatus by means of which every particle of nutriment is extracted from their food; and the digestive organs are always and actively at work. In the improved system of husbandry the thing goes much farther—the digestive functions are strained to the utmost point—the system of early maturity which is so generally and profitably pursued, keeps every organ in a state of dangerous excitement, ready to assume the character of unmanageable inflammation, or gradually to sink, or sometimes all at once break down, under the task imposed upon it. Therefore it is that dysentery has attained fearful pre-eminence as one of the deadliest scourges of our cattle. We have generated a predisposition in them to take on all the fatal characters of this disease. It is generated by many an error in their diet, which, but for the previous diathesis to which we had given existence, would be comparatively harmless. It is the companion or the consequence of almost every malady, and it is the harbinger of their fatal termination.

If the case were to be carefully inquired into—if the farmer would compare the appearance and profitableness of his cattle on certain portions of his farm, and at certain times of the year—and if the veterinary surgeon were better prepared to inquire into and to detect the obscure causes, and the disregarded premonitory symptoms of the diseases of cattle, they would, perhaps, be found to arise from or to be connected with circumstances of a kindred nature with those that were developed in the present trial. It is well known that there are certain pastures on many farms which, without yielding more abundant, or, apparently, more nutritive herbage than the rest, are pre-eminently favourable to the health of the cows, and an increased production of milk; there are others that appear almost as fairly to the eye, but on which the quantity of milk is rapidly and annoyingly diminished, and the cow begins to exhibit, in various ways, the characters of obscure disease. If the case were to be fairly inquired into, the deleterious but unsuspected influence of decomposing or putrid vegetable substances might be discovered to lie at the root of the evil; and at a trifling expense the good qualities of the one pasture might be perpetuated, and the baneful effects of the other removed.

What are the usually recognized causes of dysentery? Any—every cause of local or general debility—abandonment to cold and wet at the time of calving—general abandonment to cold and neglect—a system of starvation—over-work—a long continuance of sultry weather, or rather the sudden setting-in of cold after the constitution has been debilitated by previous heat: these are occasional causes. But what are the general ones? What carries off so many of our yearling calves, and,

long ere her natural time, hurries the dairy cow away? Why, plainly and palpably, the pasturing on low and marshy situations—the neighbourhood of woods—the drinking from stagnant ponds, or half-stagnant rivers—the feeding on sanded hay—the being turned on meadows from which the flood is beginning to dry—the open and evident influence of decomposing vegetable substances; and I am much mistaken if this influence, in a more secret but scarcely less fatal degree, is not connected with the mortality, whether occasioned or habitual, which prevails among the dairy stock of the farmer. This is a view of the subject well deserving of consideration, and to which I shall return at some future period; but in the mean time our brethren in the country, who have more frequent and better opportunities to trace out these causes and indications of disease, would benefit their profession, and occupy their proper station with reference to the interests of the agriculturist, by taking up the matter.

The time, surely, cannot be far distant when the veterinary practitioner will be better prepared for such an inquiry. Reason, common sense, and the interests of the country at large, imperiously demand it.

Y.

CLYDESDALE ORCHARDS.—The gooseberries and currants in the after-mentioned orchards, in the parishes of Dalzell, Cambusnethan, Carluke, Bothwell, and Dalsert, were sold this season, some by public roup and others by private bargain, at the following prices: Garrison—Lord Belhaven and Mr. Jas.

Brownlie .....	£60 0 0
Rannalds—Lord Belhaven & Mr. Jas Henry	53 0 0
Mauldslic Castle—A. Nisbet, Esq. ....	49 10 0
Brownlie—J. Harvey, Esq. ....	49 0 0
Steuart-Hall and Orchard, J. Brown, Esq. ....	31 15 0
Holmfoot—Miss Howison .....	29 0 0
Dalzell—Mrs. Hamilton, .....	26 15 0
Brownlie—R. Steuart, Esq. ....	19 10 0
Garrison Haugh—Mr. Holms, sen. ....	16 0 0
Cornsilloch—Mr. Holms, jun. ....	14 0 0
Braehead—Mr. Orr. ....	13 1 0
Garrison Mill—Mr. J. Brownie. ....	12 0 0
Dalzell Manse—Rev. Mr. Clason. ....	11 10 0
Gillfoot—Mr. Gilchrist .....	11 0 0
Sunnyside—Gillespie, Esq. ....	10 0 0
Dalsert Manse — Rev. Dr. Russell. ....	18 0 0
Hill of Orchard—Mr. Reid .....	9 10 0
Hallerraig—Mrs. Robertson .....	9 10 0
Kirkhill—Mr. Wm. Renwick .....	7 10 0
Do. —Mr. J. Williamson. ....	3 0 0
Clydevall—Mr. Purdie .....	3 6 0
Bothwell Manse—Rev. Dr. Gardener. ....	29 5 0
Bothwell—Captain Bogle .....	6 10 0

Amount sold by public roup. ....	£483 12 0
Amount sold by private bargain, in the different parishes, as far as could be ascertained .....	£99 4 0

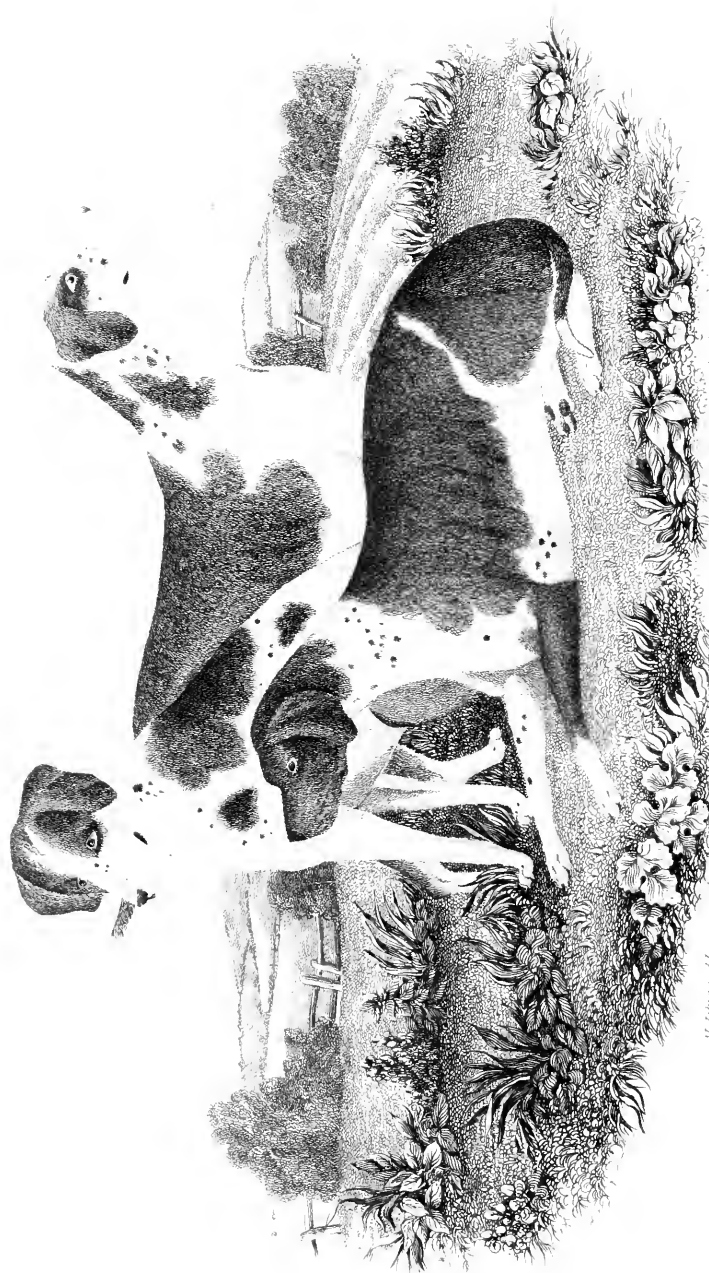
Total .....

.....	£582 16 0
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Near Hamilton, }  
25th July, 1836 }  
About 200l less than last year.

ISLINGTON MARKET.—The idea of converting the Islington-market speculation into a joint-stock company seems to gain ground. At Bedford resolutions favourable to the plan, pledging the parties to use every exertion to promote “the immediate circulation of the shares among the landowners, graziers, and farmers,” have been voted; and at Boston a meeting has been called for this day (Friday) for a like purpose, at which the Mayor presides.





M. J. P. 1851

P O U N D E R S .

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## GROUP OF POINTERS.

(Plate.)

The Pointer, as our Readers are very well aware, is used exclusively for the gun in the pursuit of the grouse, the partridge, &c. and he is superior to the setter (used for the same purpose) in steadiness as well as in the acuteness of his olfactory organs or powers of smell. Like the Arabian horse, he may be regarded as an exotic, which, in the hands of the English Sportsman, has attained a degree of perfection which will be vainly sought in those countries of which he was originally a native.

If we can place reliance upon the concurrent testimony of those who have expressed their thoughts upon the subject, through the medium of the press, the pointer was originally from Spain; a doctrine which seems feasible, because the heavy lumbering dog, evidently the patriarch of the race, has been uniformly found in that country up to the present moment. The animal in question, then called the Spanish Pointer, is a large heavy creature, *out at the elbows*, with widely-spread ugly feet, and altogether uncouth in his form: his head is very expansive, ornamented with large pendent ears, while his mouth is fringed by a much more than ordinary quantity of what is well understood amongst sportsmen by the term *leather*; and in consequence he is enabled to ascertain the proximity of game in a most surprising manner. However, it will easily be perceived, that, as his legs are crooked, his body ill-formed, his feet spongy and widely spread, he is utterly incapable of that continued exertion for which the highly improved English pointer is remarkable. Moreover, he growls at the hand which is extended to caress him, is remarkably ill-tempered, and always seeking a quarrel with any variety of his tribe which happen to fall in his way; uniting obstinate courage with great strength, few dogs are able to oppose him successfully. He is further remarkable for his propensity to chase hares; we have seen many Spanish pointers in the field, the greater part, though as steady as possible to birds, almost uniformly broke away if a hare happened to move. Having remarked that the Spanish pointer is the original of the varieties which are met with in different countries and places, it may be further observed, that, considered in the aggregate, these dogs approach the hound ramification, and have occasionally been designated *Pointing Hounds*.

The Portuguese Pointer—(or at least such of these dogs as have fallen under our observation), presents, with a lighter form, the glaring defects of their Spanish progenitor, namely, the defective feet, crooked legs, and turbulent disposition. Those which we have seen, from their more fully fringed and longer tail, as well from their countenance, indicated a cross of the sagacious dog of Labrador. Like the

Spaniard, however, they soon tire, and are much inclined to chase hares.

The dog used as a pointer in France is distinguished by a furrow between the nostrils, by which these tube-like passages are very distinctly separated, and which gives to the animal a grotesque and even an unsightly appearance. We have never been able to discover whence this furrow was derived, (but should feel extremely obliged to any Correspondent who could give us the information) which has procured for the dog the appellation of the *Double-nosed Pointer*. We are not sufficiently acquainted with the varieties of the canine tribe in France to be able to form an opinion of the particular strain which, united to the Spanish pointer, produced the dog under consideration; but those which we have seen (and we have shot over some scores, at various periods) have been better formed and more active, than either the Spanish or Portuguese dog, and consequently capable of longer continued exertion: however, like their patriarchal progenitor, and more distant relative, they are very quarrelsome, and generally receive the caresses of their master with surliness, instead of that well expressed pleasure for which the spaniel is remarkable, as also the canine race in general. Further, they are much given to chasing hares. However, the notion, inconsiderately entertained by many, that the "*double nose*," as it is called, tends to increase the acuteness of their olfactory organs, is most erroneous, as the sense of smell is found precisely in proportion to the expansiveness of the head, in the dog, and also in every other animal, as anatomical investigation will incontestibly demonstrate.

The *Russian Pointer*.—Something more than thirty years since, what was denominated a Russian Pointer, was introduced to our notice by a much esteemed brother sportsman, who, we are happy to state, is still able, like Somerville, to enjoy the pleasures of the chase *in his arm chair*, and his appearance was by no means calculated to impress upon our minds a favourable notion of his performance in the field; but unquenchedly thirsting for a knowledge of whatever might conduce to the improvement of the diversion of the Trigger, we eagerly accompanied our friend to the field—only to experience disgust at the semi-abortive attempts of this wretchedly-miserable apology for a pointer. We may perhaps have seen a dozen of these brutes, which, like the people whence they derived their grossly-misapplied appellation, are very unceasingly very rough, imperturbably stupid, and, by way of continuing the similarity to the greatest possible extent, will generally be found infected with loathsome vermin. The Russian Pointer, if he be of Russian original, which we think very probable, is the very ugliest strain of the water-spaniel, his attempts at hunting, or trying for game, offer the very reverse of that beautiful animated range which marks the exertions of the highly improved

pointer; on the contrary, he runs awkwardly, with his nose close to the ground, and therefore frequently springs his game. The dog in question may answer very well for the vulgar pursuit of the coot or the water hen; but he possesses much the same claim to the character of a pointer as a methodist minister to that of a genuine honest Englishman. We have not seen one of these northern barbarians in the field for the last fifteen years.—A pig may be taught to stand at game; but more of this hereafter.

*The English Pointer.*—From what has been stated, it will easily be perceived that the English Pointer must have inherited a considerable portion of Spanish blood, and that much of it still circulates in his veins; but, though our terrestrial ball has revolved for centuries since the Spanish pointer was introduced here, we entertain scarcely a doubt, that the ardently-undefatigable English Sportsman, finding him too slow in his movements and very soon fatigued, had recourse to the hound for the purpose of increasing his speed as well as improving his powers of endurance. The first remove, thus obtained, would be an improvement beyond all question, but it would be found impossible to arrive at that degree of perfection which characterises the pointers of the present day till after a variety of crosses, directed by preserving industry and skill. Not only the various classes of hounds were used, but the assistance of the highly-bred greyhound was deemed requisite; and though it was evidently found necessary to wash out much of his blood, yet the strain frequently manifests itself in the long rat-like tail and other indications which cannot be mistaken. But, of all those who ever made the breeding and improvement of the pointer their study, none exceeded in zeal and perseverance the author of the "Sportsman's Cyclopaedia," the "Shooter's Companion," &c. Cradled as a sportsman, he imbibed an invincible passion for the chase in all its ramifications, which he has ardently pursued through the rugged path of life, and still continues to cherish and enjoy. As soon as he was able to use a gun, the pointers which he followed were large heavy animals, possessing three-fourths Spanish blood, and exhibiting qualities and temper precisely in proportion. Impatient of comparative inferiority with any of his friends—or rather perhaps panting for unquestionable excellence—his attention was turned towards the improvement of his pointers; but either from lack of knowledge or other cause, he experienced nothing but the most miserable disappointment for some time; he was particularly unfortunate in his early notions in regard to the form of the head. At the period of which we are speaking, it was the custom, or the fashion, or both, to regard a large expansive head as not merely the reverse of beauty, but a sort of blemish; and, inconsiderately adopting this monstrously ridiculous idea, he found himself, after several years' experimental crossing, in possession of a set

of dogs with compressed heads, considered *handsome*, forsooth! giddy and uncertain to a most vexatious extent; because, being thus deprived of a sufficient breadth and expansion of the requisite organs (of smell) the operative functions were inadequate to the due and satisfactory performance of that duty which they thus vainly essayed to perform; in the language of the school, *their noses were bad*. However, reflection induced him to *hark back*: he was convinced there could be no effect without a cause:—what, therefore, was the source whence the Spanish pointer derived his unequivocally acknowledged superior powers of smell? to use the words of a would-be-thought genius, whose *specious inventions*, however, will not give to his memory an enviable immortality, it "struck us like lightning," that the large expansive head of the surly Spaniard would afford him the desired information. Therefore, Chance, five years old, a genuine Spanish pointer, was immediately condemned. Dissection exhibited the small white cords which constitute the olfactory nerves or organs, or rather perhaps which receive and convey the impression of scent to the brain, in vast numbers; hence the superiority already noticed. However, for satisfactory elucidation more sacrifices were rendered indispensable: in short, after the examination of a variety of heads, it was found the olfactory nerves or organs were numerous precisely in proportion to the expansion of the head, and therefore, as the heads narrowed, the cords in question diminished, and consequently the powers of smell became inferior in the same degree:—the Spanish pointer and the narrow-headed high-bred greyhound may be regarded as the two extremes: the experiments were delightfully satisfactory!

The difficulty which presented itself was to unite a head sufficiently expansive with a form calculated for celerity and endurance. In the course of his experiment, the writer to whom we have alluded, procured pointers from various parts of Europe, particularly from France, Spain, and Portugal: he had recourse to his sporting friends in this country, and introduced the Leicestershire and Yorkshire blood into his kennel: and after sixteen years of crossing and recrossing, he produced pointers from whose performances he experienced the utmost satisfaction; the group which embellishes our present number is offered as a specimen. He happened accidentally to meet with a pointer on board a Spanish vessel in the harbour of Liverpool, whom the Captain represented as the best blood in Spain. It was the most shapely Spanish pointer which he had seen, and he therefore procured it. White was the dog's prevailing colour, singularly spotted—hence the spots, observable in the portraits united in our embellishment. He was put to a liver-coloured bitch, and the whelps manifested in a remarkable manner the preponderating influence of the sire, in form, colour, and disposition; yet, they were an improvement upon the

Spaniard; their legs and feet were superior; they were more active and much fleet; still they were not satisfactory—it was evident much remained to be accomplished before that combination of qualities could be obtained so as to bid defiance to improvement. One of the litter deserves particular notice; it was a dog whelp, the largest amongst them, and ultimately became a very powerful animal; the head appeared disproportionately large, and from an early period of life, Frank (for such was the name by which he was distinguished) evinced extraordinary sagacity. By the time he had attained the age of twelve months, he knew the poultry, pigs, and indeed all the live stock, of his master; nor would he suffer the intrusion of a stranger: he was an excellent physiognomist, and forbid the approach of suspicious persons in a manner which could not be mistaken—and that too with a determination to accomplish his object or perish in the attempt. He became much attached to the female part of the family, and particularly to the smaller children. Though ill-tempered, and for ever growling, the children pulled him about, and took all kinds of liberties with him, notonly with impunity, but apparently with pleasure to the dog, as he never seemed so happy as under such circumstances. To a little girl of delicate health (six years of age) he became uncommonly attached: he attended her in all her little excursions, watched her motions with the most jealous attention, scrutinized the approach of every stranger with threatening suspicion, and would allow no person to come near his charge unless he felt satisfied no evil was to be apprehended. On this account the dog became a great favourite; but unfortunately there were shades in his character of an opposite kind; he was most assiduous in searching for eggs, which he very greedily devoured; even if the hen were sitting on the nest, it afforded no defence against his depredations; while any strange fowl which happened to come upon the premises, he instantly killed; he was a most accomplished thief in every respect; and from these evil propensities it was found impossible to restrain him.

In the field this dog evinced sagacity, and an exquisiteness of the olfactory organs or powers of smell seldom witnessed; but, although he set winged game very steadily, he chased hares in the most obstinate manner; on the whole, he was very unruly in the field, and on that account his services as a pointer were soon dispensed with, though it was deemed advisable to retain a little of his blood.

A dog which the same gentleman procured from Portugal was awkwardly formed, with feet remarkable for breadth, looseness, and the very large size of the ball—expressively indicated by the term *spongy*. This dog proved very steady, but soon became fatigued, as may be easily supposed from the form and quality of his feet.

The French double-nosed pointers, were uniformly found unruly, very hard, and, like

the Spanish dog, as quarrelsome as possible, generally growling under the caresses even of their master. The faulty legs and feet of these animals were improved by repeated crossings; but, while the French blood was allowed to predominate, they proved headstrong and unpleasant in the field, and were particularly unpleasant on the moors, where the business of shooting should be conducted as quietly as possible,

To be brief: after persevering for sixteen years, and having recourse to every strain which appeared likely to promote the object in view, the author of the *Sportman's Cyclo-pedia*, &c. &c. became possessed of pointers from which he derived that satisfaction which he had so ardently and so perseveringly sought, and which could not fail to be highly approved by the most fastidious disciple of the trigger.

Di, a liver-colour and white pointer bitch, was the first animal of the kind with which he was perfectly satisfied; she was remarkable for depth of chest, strength of loins, well formed limbs, large handsome head, and indeed, for all those essential requisites, which are so admirably exemplified in the group which forms our present embellishment. She was the dam of the recumbent figure (Bob) as well as of the figure to the right (Moll, the sister of Bob); superior pointers the world never saw; the figure to the left (Don) is nearly allied by blood, and may be regarded as of the same family, as his appearance sufficiently indicates.

Much difficulty was experienced in the requisite improvement of the feet; and, it may not be amiss to remark in this place, that Somerville, so generally correct in his notions on dogs used for the sports of the field, fell into a most egregious error in regard to the form of their feet. He shall speak for himself:—

“ ————See there, with countenance blithe,  
And with a courtly grin, the fawning hound,  
Salutes thee cowering, his wide opening nose,  
Upwards he curls, and his large slowblack eyes  
Melt in soft blandishment and humble joy!  
His glossy skin, or yellow pied or blue,  
In light or shades by nature's pencil drawn,  
Reflects the various tints; his ears and legs  
Fleckt here and there, in gay enamell'd pride,  
Rival the speckled pard; his rushgrown tail,  
O'er his broad back, bends in an ample arch;  
On shoulders clean, upright and firm he stands;  
His *round cut foot*, straight hams, and wide spread thighs,  
And his low-ripping chest, confess his speed,  
His strength, his wind, or on the steepy hill,  
Or far extended plain; in every part  
So well proportioned that the nicer skill  
Of Phidias himself can't blame thy choice.  
Of such compose thy pack. But here a mean  
Observe, nor the large hound prefer, of size  
Gigantic; he in the thick woad cover'd  
Painfully tugs, or in the thorny brake,  
Torn and embarrassed, bleeds; but, if too small,  
The pigmy brood in every furrow swims;  
Mould in the clogging clay, panting they lay  
Behind inglorious; or else, shivering ere yet,  
Besour'd and faint, beneath the shelling thorn.  
For hounds of middle size, active and strong,  
Will better answer all thy various ends,  
And crown thy pleasing labours with success.”

Somerville's description relates to the hound; but, as far as regards form, is applicable to every kind of dog used in the

sports of the field, and particularly to the pointer:—it is as correct as possible—except the “*round cat foot*.” It would appear strange how Somerville, so acute and correctly accurate in general, should have been led into a mistake so palpably egregious, as to recommend the “*round cat foot*” as conducive to speed in the dog; it is equally strange that the celebrated Hugo Meynell, the accomplished Beckford, and indeed all successive fox-hunters, should have proceeded upon so monstrous a paradox in the breeding of their hounds. Such a formation of the feet is perfectly in unison with the mechanical or animal organization of the cat kind, but when the structure of the dog is considered, and the strongly-marked difference of the progressive motion of the two species taken into the account, the admirable adaptation in the one case, and the glaring incongruity of the other, cannot fail to be impressed on the mind with the most unqualified conviction. The cat (and so of all animals of the cat kind) is, like the rest of creation, formed for its mode of life. The round foot, and well developed toes, of the cat, enable it to creep stealthily upon its prey, while by this peculiarity of formation, it retracts or draws in the instruments (the talons or claws) by which it is to seize and secure it. When within reach, the cat springs upon its victim, the propulsive force of which results from the form and extraordinary power of the hind legs or quarters. In this operation, or rather combination of operations, the cat is assisted by that flexibility of the body, particularly of the back bone, that contraction and tension, which will be vainly sought in the canine tribe. In fact, the two animals are so distinctly marked in form, manner, and motion, that the peculiarity of the one, the *round foot*, for instance, becomes preposterous, if not monstrous, in the other.

Having already remarked, that breeders of hounds suffered themselves to be inconsiderately led astray by the erroneous doctrine of Somerville, we must here observe, it brings to our mind an incident which may be related as illustrative of the subject under consideration. When Mr. Osbaldeston was master of the Quorndon establishment for the second time, we happened to be in the kennel, and, amongst other hounds which attracted our attention, was Pilot, a middle sized dog, but remarkable for bone; the upper part of his fore leg was nearly, if not quite, as thick as our wrist, to which the “*round cat foot*” presented a grotesque appendage. We felt convinced that he must be *dead slow*; and on hinting our opinion, we were given to understand he did not run well up, and had by no means answered the expectations formed from his extraordinary development of bone. How was it possible! his fore legs and feet were an absolute malformation!

For a correct idea of the perfection of the foot of the pointer, we should steadily keep in view the long wiry narrow toe, and indeed the altogether exquisite formation of the foot

of the hare:—Whence arises the extraordinary speed (and also strength) of this surprising little animal, but from that peculiarity of conformation for which it is pre-eminently distinguished? The hare has no ball to her foot; the dog cannot be divested of this cushion like appendage; but, in breeding, nothing should be neglected that will be likely to reduce its size and softness (so conspicuous in the Spanish pointer) as well as to lengthen and harden the toes. When the foot of the pointer is formed so as to approach as nearly as possible that of the hare, his limbs strong and straight, his chest “*low drooping*,” loins broad, &c. he will go through a lengthened degree of exertion which would be regarded as impossible, by those who have paid but slight attention to the subject.

We are told it was an Earl of Surrey that first taught the dog to set or stand at game, but which of these Earls the writer has not condescended, or has not been able perhaps, to inform us; however, the original date of this transaction amounts to nothing, since, whoever may lay claim to the authorship, the idea arose, beyond all question, from the following circumstance:—All dogs that will hunt will be found, while young to dash headlong into their game and force it to spring: but, in the course of a short period, when they find they cannot catch it by pursuit, they will be observed, as soon as they recognize the scent, to draw more warily upon it, and, after having made a near approach, they will pause for a few seconds, in order to ascertain the exact spot, if possible, where it lies concealed, for the purpose of seizing it before it springs. Hence originated the notion of the setting dog:—his temporary pause was improved into a steady point.

It is not a difficult matter to make any dog set or point, that will hunt; but, at the same time it must be admitted, there are various kinds of these animals, which, however steadily they may point the game, are not well calculated for what the French call *La Chasse au Fusil*; or, in other words, for the pursuit of the grouse on the rugged blue mountains of the north, or the partridge in the inclosures and more cultivated grounds. A dog for the purpose in question should have an elegant lofty range, should possess considerable speed, as well as strength and spirit to endure long and fatiguing exertion. For such a combination the well-bred pointer, (such, for instance, as adorns our present number) is well, we might say, pre-eminently, calculated; for, although there are sportsmen to be met with who prefer the setter to the pointer, on account of his superior strength and hardihood, yet we cannot give in to such an opinion; since, as these qualities, the capacity of enduring exertion or fatigue, are the result of animal organization, so, when the pointer is bred as he ought to be, he will be found equal to the setter in strength and endurance, superior in the acuteness of his olfactory organs, and steadier also.

The pointers whose portraits accompany this publication, were allowed to follow their master into the field as soon as their strength would enable them, before they could manage to surmount the ditches, over which they had frequently to be lifted. They taught or broke themselves into the business they were intended to pursue, and were never terrified by the whip of the professed dog-breaker. The author of the Sportsman's Cyclopedia, &c. &c. generally contrived to have his whelps brought forth in the latter end of February or the early part of March; and, as soon as the hay was cleared off the ground, he allowed them to follow him into the fields, where they immediately began to hunt, and very soon to set young partridges which might be found running in the after-grass towards evening, very steadily. This was adopting the admirable maxim, "Train up a child," &c. and thus, without trouble, his young pointers might be said to educate themselves; and, it may be justly observed, that self-acquirement, or self-acquired education, uniformly makes the most lasting and the most perfect impression on the mind. Towards the latter end of the month of September, they were shot over, and taken out regularly during the remainder of the season.

It has been supposed by some, that dogs which slip so naturally into the method of pointing, acquire afterwards too much set; this, however, is quite a mistaken notion: ill-bred dogs will frequently be guilty of the incurable fault just mentioned (and in fact an ill-bred dog is very seldom worth keeping); but the breed of dogs under consideration, three beautiful specimens or samples of which we have placed before the eyes of our readers, never contracted the lazy, evil, degenerate habit of *pointing at nothing*, if such an anomaly may be allowed; on the contrary, their index was as true as the gnomon of the sun dial; while their *backing, down charge*, and uniform obedience, mode of ranging, &c. &c. were as perfect as possible; they may be regarded as the perfection of the pointer: better dogs for the gun were never seen; as far as relates to beauty of form, we will leave the reader to judge for himself.

However, let it be well remembered by those who are desirous to breed pointers, (and the same rule will apply to every variety of the canine tribe) that it does not necessarily follow, because the best possible breed has been obtained, it can be continued or propagated in perfection inclusively, or upon the in-and-in system of procreation; so far from this, recourse must be frequently had to strains as remote as possible from any degree of consanguinity; and, although an occasional incestuous dip may be advisable, particularly on the score of beauty, circumspection and judgment should be exercised on such occasions, or the most injurious consequences can scarcely fail to result. Even in having recourse to crosses from strange blood, care should be taken to select the individuals so as

to secure the utmost beauty of form as well as every other requisite; if, on one side, there happen defect, an attempt should be made to neutralize or correct it, by the preponderance of the part or quality, on the other. If pointers are bred absolutely in-and-in, they will be found gradually to lose their faculties, will become diseased, and in a short time, will be utterly incapable of continuing their species. Further, let those who breed pointers keep in mind the preponderating influence of the male, particularly where recourse may be had to a strain utterly unconnected by the slightest degree of consanguinity; also, it may frequently be observed, that the females of a litter will present a strong likeness of the sire, while those of the opposite sex will be found to approximate the dam; observations, we have reason to believe, generally applicable to animated nature.

We have heard inconsiderate sportsmen recommend a cross with the setter. We have witnessed the experiment of this incongruous conjunction repeatedly; one good dog in five hundred may be thus obtained; but in general the offspring of the pointer and setter are very unruly, very obstinate, and very rarely indeed worth the trouble of rearing.

What are well understood amongst sportsmen by the term *cross-bred dogs*, we regard with contempt, though an extraordinary animal (one in ten thousand perhaps) has been occasionally thus produced. The late Col. Thornton's Dash, is the most celebrated of these semi-mongrels. Dash was produced by a cross of the foxhound with a highly bred pointer bitch; he was remarkable for his style of ranging upon the moors, as well as for his superior method of finding game; he was equally excellent in partridge shooting, and backed other dogs as steadily as possible. This dog was sold to the late Sir Richard Symons for one hundred and sixty pounds' worth of Champagne and Burgundy, which had been purchased at the French Ambassador's sale, a hogshead of claret, an elegant gun, and a pointer; with a stipulation that if any accident befel him, as might render him unfit to hunt, he was to be returned to the Colonel for fifty guineas. Dash had the misfortune to break his leg; he was therefore sent to Colonel Thornton, who paid the fifty-guineas, and kept the dog as a stallion: from whom, however, a single whelp worth keeping was never procured. Nor was such a circumstance likely; the stock of these cross-bred dogs is uniformly good for nothing.

The late Rev. W. Daniel, compiler of the Rural Sports (which, if the plates be excepted, is one of the most ill-digested farragos that ever disgraced a scribbler, or insulted the genuine sportsman;) extols Colonel Thornton's Dash as a dog from which to procure superior pointers; while in the same volume, at some pages distance, he gives a striking specimen of physiological ignorance, and consequent incapacity for the task which he had undertaken. "Upon no account (says he) accept

or keep a spaniel (it is needless to tell a sportsman not to *breed* from) which has any taint of the hound in his pedigree; although for generations back, they will be sure to hunt hare in preference to winged game, and the stock may be crossed everlastingly, may attain beauty, strength, symmetry, yet this latent spark of the harrier will never be extinguished, and they will always shew their predilection for hare whenever they have an opportunity, and this generally happens when their goodness is most required; namely, in cover, where the winged game is preserved, and there, for the most part, hares are also in the greatest plenty. A stronger instance could not be well exhibited, than in the spaniels of the deceased Lord Waltham and Mr. Hoare: a road only parted the seats of these two gentlemen, and their gamekeepers frequently shot in the woods together: their dogs were equally handsome; but those of the former would drive hares the day through, and consequently sprung everything that accidentally laid in their course; whilst those of the latter no more ran hares than they did sheep; they would indeed find the hares, but follow no farther than they could see them: they were always in their places, twisting around every stub with that agility, and possessed such fineness of nose, that neither woodcock nor pheasant could escape their search. Lord Waltham's spaniel bitches had originally a cross of the beagle, and although this was tried to be remedied by resorting to the best dogs, the tendency to hare could never be removed." What ridiculous, what preposterous, nonsense!

To say nothing of the reverend gentleman's ignorance of our vernacular idiom, or his ill-defined notion of the grammatical construction of the English language, what does this prove? Why, that Lord Waltham's keepers, like W. Daniel, did not understand their business. "*The tendency to hare could never be removed.*" indeed! Then how came the tendency to fox to be subdued in Colonel Thornton's Dash? But, above all, how came the tendency to hare to be subdued in our pointers, since the very best of them have a cross of the hound? It would seem strange indeed, if spaniels could not be prevented from chasing hares, since the foxhound, the most hardy and intractable perhaps of any of the dog tribe used in the pursuit of game, is not only restrained from pursuing hares, but also from following any other animal, and kept as steady as possible to the pursuit of the fox.

Nothing is more common than to hear the sagacity of the Newfoundland dog and the Poodle extolled to the skies, but they are not superior to the well bred pointer in intellectual capacity: indeed, this quality, by whatever name it may be distinguished, will be found precisely in proportion to the expansion of the head; and, as we have already observed that the sense of smell is regulated upon a similar principle, a person who has

duly considered the subject, will be able to form a tolerably accurate opinion of either the one or the other by the appearance of the animal.

The recumbent figure in the engraving (Bob) was remarkably sagacious; he possessed canine discrimination in the superlative degree. On returning home from shooting, in passing a pit, a couple of wild ducks rose from it: the gentleman to whom we have frequently alluded in the course of this article, the owner of the dog, brought them down one with each barrel. One of them fell into the water. The gentleman was accompanied by three pointers, one of which was the dog just mentioned; but, as the coming upon these ducks was a mere accident, and the pit being overhung with trees, and fringed with brushwood, the dogs, though put on the *qui vive*, were not exactly aware for what the gun had been discharged. How to get the duck out of the water became the object of consideration: Bob, though not fond of taking water, had repeatedly fetched a wounded or dead bird out of it, nevertheless. At length, by lifting the dog in his arms, his master contrived to shew Bob the floating object which he was desirous to obtain. The dog entered the water immediately, swam up to it, took it in his mouth—but he no sooner perceived it was not his legitimate game than he spurned it with contempt—he returned without the duck, nor could he be induced to fetch it out: a partridge he would have brought out without hesitation.

A sportsman ought never to lend a pointer, since a dog, whatever his good qualities may be, will not serve a stranger either so willingly or so well, as his master, and returns home all the worse for the indiscreet experiment. However, a friend being very importunate, the owner of the pointers whose portraits accompany the present number, after some hesitation, agreed to accommodate him with Bob, who was well advanced in life, had seen an abundance of game fall before him, and was a finished adept at his business. The gentleman prepared for the field, and the dog, perceiving the shooting jacket, gun, &c. accompanied him without hesitation. In about two hours the dog was observed, at the distance of several fields, returning home very leisurely and very unconcernedly—and home he came, followed in some fifteen or twenty minutes by the gentleman. It was easy to guess what had occurred. The gentleman had not killed a bird; but on repeatedly missing, the dog began to testify symptoms of uneasiness and dissatisfaction; and, at length, after some half-score shots had been wasted, Bob unceremoniously gave up and returned home. The lender was prepared for such a result. He was aware his friend was a very indifferent shot; and as the dog had been in the habit of observing the game fall when the gun fired, he concluded Bob would suspend his exertions when he found them unavailing.

We have already observed, that any dog

which will hunt may be taught to set. We once saw an animal bred between the water spaniel and the shepherd's dog that pointed partridges as steadily as possible. Indeed, it would appear as if this manœuvre or act of pointing, depending as it does on the sense of smell, is not exactly confined to the dog tribe, as the following anecdote will render manifest; which, however, we should not introduce, were not its authenticity placed beyond all doubt. A *black sow*, belonging to Richard Toomer, acquired the knack of pointing. Slut was bred in the New Forest, Hampshire, and was of that sort of hog which maintain themselves upon the wild productions of the Forest, except when they have young, when they require extra food for a few weeks. She was given, when about three months old, by Thomas to his brother, Richard Toomer (both keepers in the Forest) for the purpose of breeding. Little notice was taken of her till she was about eighteen months old, as she had not produced any young; she was seldom seen near the lodge, but chanced to be observed one day near that place, when Thomas Toomer happened to be there. The brothers were concerned together in breaking pointers and setters, some of their own breeding, and others which were sent from different gentlemen; of the latter, although they would stand and back, many were so indifferent that they would neither hunt, nor express any satisfaction when birds were killed and placed before them. The slackness in these dogs first suggested the idea, that by the same method any other animal might be taught to stand, and do as well as one of those huntless and inactive pointers. At this instant the sow passed by, and was remarked as being extremely handsome. R. Toomer threw her a piece or two of oatmeal roll, for which she appeared grateful and approached very near; from that time they determined to make a sporting pig of her. The first step was to give her a name, and that of Slut (given in consequence of having soiled herself in a bog) she acknowledged in the course of the day, and never afterwards forgot. Within a fortnight, she would find and point partridges and rabbits, and her training was much forwarded by the abundance of both which were found near the lodge. She daily improved, and in a few weeks would retrieve birds that had ran as well as the best pointer; nay, her nose was superior to any pointer they ever possessed, and no men in England had better. They hunted principally on the moors and heaths. Slut has stood partridges, black game, pheasants, snipes, and rabbits, in the same day, but was never known to point a hare. She was seldom taken by choice more than a mile or two from the lodge, but has frequently joined them when out with their pointers, and continued with them several hours. She has sometimes stood a jack-snipe when all the pointers had passed it. She would back the dogs when they pointed; but the dogs refused to back her until spoke to,

these dogs being trained to make a general halt when the word was given whether any dog pointed or not; so that she has been frequently standing in the midst of a field of pointers. In consequence of the dogs not liking to hunt when she was with them (for they dropped their sterns and shewed symptoms of jealousy) she did not very often accompany them, except for the novelty, or when she accidentally joined them in the Forest. The pace was mostly a trot; and she was seldom known to gallop, except when called to go out shooting: upon which occasion, she would come off the forest home, at full stretch (for she was never shut up, but to prevent being out of the sound of the call or whistle, when a party of gentlemen had appointed to see her out next day, and which she obeyed as readily as a dog;) and be as much elated as a dog upon being shewn the game. She always expressed great pleasure when game, either dead or alive, was shewn to her. She has frequently stood a single partridge at forty yards distance, her nose in a direct line to the bird; after standing some considerable time, she would drop, still keeping her nose in a direct line for the game, and would continue in that position until the game moved. If it took wing, she would come up to the place, and put her nose down two or three times; but, if a bird ran off, she would get up, go to the place, and draw slowly after it; when the bird stopped, she would stand it as before. The Toomers lived about seven miles apart, at Rhinefield and Broomey Lodges; Slut has many times gone by herself from one lodge to the other, as if to solicit the gratification of being taken out with the gun. She was about five years old when her master died, and at the sale of his pointers, &c. she was purchased by Sir H. Mildmay, and sent to Dogmersfield Park, where she remained some years: she was last in the possession of Colonel Sikes, was then ten years old, and had become fat and sluggish, but would point game as well as before. When killed, which was at Bassilden House, Slut weighed seven hundred pounds: we envy not the feelings of a man who could order the slaughter of such an animal.

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IMPORTANT INVENTION.—A free man of colour, Henry Blair by name, has invented a machine called the corn-planter, which is now exhibiting at the capital of Washington. The *Intelligencer* describes it as a very simple and ingenious machine, which, as moved by a horse, opens the furrow, drops (at proper intervals, and in an exact and suitable quantity) the corn, covers it, and levels the earth, so as, in fact, to plant the corn as rapidly as a horse can draw a plough over the ground. The inventor thinks it will save the labour of eight men. He is about to make some alterations in it, to adapt it to the planting of cotton.—*New York Paper.*

## TO THE EDITOR OF THE FARMER'S MAGAZINE.

[The subjoined letter arrived too late for insertion in the Magazine published on the first of August, but as it contains much valuable information on the state of the crops during the month of July, although late, we think it will still be found interesting.—E.D. F.M.]

SIR.—The revolving year with its succession of seasons, in this our beautiful country and temperate climate, must appear even to the town immolated part of the community, as the grandest and most sublime work of our Merciful Creator; and to the husbandman it seems especially to be bestowed as the means of reward to his care and toil, and as a perfect fulfilment of the promise given to our first parents, that by industry man should eat bread, although the ground had been cursed by his disobedience.

During the last month of beautiful hay-making weather, this department of agriculture has proceeded, as it needs must have done, speedily and satisfactorily, and on the grass land generally, particularly on the low marshy lands, satisfactory both as to quality and quantity, but not so however in the latter respect as regards the red clover and other artificial grasses, for here has been an unusual falling off in quantity, with the exception of the crop grass which has been good every where. It has been a rare occurrence during the spring and summer to see a good piece of clover, and I do not recollect to have seen fifty acres of seeds likely to produce a fair average growth. The winter tares were however remarkably fine and produced an immense supply of food on almost every farm, thus offering a good substitute for clover, both for green food and hay. The making of tares into hay is a tedious process, but if circumstances happen to be favourable, it is a capital fodder for cattle and sheep, and they will usually eat it in preference either to grass or clover hay. Tares for this purpose should I think be cut immediately the first pod appears, for if they be allowed to remain growing beyond this stage they lose much of their nutritious property. The forward sown turnips, particularly the Swedes, are looking very well, and many acres in this part of the country are now undergoing the process of hoeing.—July, 12th. It is astonishing the manner in which the plants have carried themselves during the late dry weather, and it is only the exception where the fly has been of serious injury. Thus, with a better crop of hay secured than we had last year, and a far better prospect for a turnip crop, it may fairly be presumed that lean sheep will bear a higher price, for although the value of mutton has considerably fallen of late, it yet bears a good price, and wool still remains a far higher price than any other article of agricultural production. At Finden Lamb Fair in this county on the 12th inst, where not more than four thousand were penned, Lambs sold from 13s to 21s. It was a very heavy trade and less than a half of the lambs were disposed of. Some wool was sold at 20s. At Horsham Fair on the 18th inst., the best Lambs sold readily, from 20s to 23s, but lambs of inferior quality hung rather on hand, but these also were pretty generally cleared off at the end of the day at from 12s to 18s. A very few ewes only were offered, and I heard of one hundred only being sold; these fetched 33s per head, but they were far superior to the average run of Down ewes. A few wether Tegs were sold from 25s to 28s.

The harvest is again approaching, and consequently the prospect of the different crops offers the usual

interest of this season of the year. I will speak first as to the wheat, which will I think in this county prove to be somewhat below an average produce; we have not seen so much difference in this grain on the good and inferior land, and I must add, on the good and inferior farming also, as we do at the present time, since the year 1831. On the best coast land there will not I think be much short of an average crop, but on the wet cold land and the high chalky and gravelly soils there will be a considerable deficiency. As an instance of this, *twenty acres of wheat* in the neighbourhood of Chichester, on a dry and poor shrave, have been sold for *fifty pounds*, and I am told the purchaser will have a dear bargain. This is undoubtedly an extreme case, but there is a considerable breadth of wheat this year very inferior in quality to any we have had for the last four years. I had last week an opportunity afforded me by a friend who farms on a dry and inferior soil, of witnessing the effect of the application of soot on young wheat in the spring. The field to which I now allude, has been partly dressed over at the rate of thirty bushels of soot to the acre, and it is quite astonishing to see the benefit that it has afforded to the crop of wheat. Nothing can be more conclusive as to the virtue of this description of dressing, than the experiment which I am now speaking of. The field was sown with wheat out of a clover ley, without any manure being laid on, the whole of the piece having been previously to this year farmed in an exactly similar manner. The field perhaps is seven acres, and about four acres (the poorest part of the enclosure) were selected for sowing the soot on, the remaining three acres not having any soot applied. I have no doubt but that at harvest there will be eight bushels of wheat more an acre on the part that was sooted, than there will be on the part to which no soot was applied. The cost of the soot was sixpence a bushel, being at the rate of fifteen shillings an acre for thirty bushels. The whole of the expense attending the dressing will not exceed twenty shillings per acre, the increase of the value of an acre of wheat will be forty-eight shillings, or eight bushels of wheat at six shillings a bushel, thus leaving a net profit of twenty-eight shillings per acre after deducting the cost and expenses of the soot, and as to any additional labour brought about by an extra crop, such as reaping, threshing, harvesting, &c., the increased quantity of straw will entirely liquidate.

The appearance of the wheat has universally improved during the last month, and it has become much higher than it promised to be, but on close examination a very considerable proportion is found deficient in straw, and which deficiency will be far more easily detected when the ribband to the wheat falls and leaves the ear to stand on its own merits.

The appearance of the barley, like the wheat crop differs considerably in different soils and circumstances, and may prove less than an average, although some barley on the good land is looking very well indeed. On the oat crop there is no question, it will be very deficient—in fact there are only a few pieces of good oats to be found on the best land, and when there is difficulty of finding instances of a fair promise of any particular grain on the good land, there is not usually found much difficulty in finding numberless instances of miserable failures of the same description of corn, on the poorer soils, and thus it is with the oats this season. The pulse crops, particularly the peas and tares, are generally good, and consequently it may fairly be presumed that after the ensuing harvest, the food for man and the food for swine will again return to something like an usual proportionate price, and not present in the market



the anomaly which existed last year; viz. hog-corn bearing a higher price, than the corn which produces the main staff of man's food. The corn markets at this time, July 16, possess a firmness which it would be reasonable to suppose the continued favourable weather to expedite the harvest, would have the effect of destroying, and this undoubtedly would be the case, but from the shortness of the supplies throughout the kingdom. That the supplies should be short after so abundant a harvest as the last is somewhat curious, and the circumstance can only be accounted for by the importations of wheat from Ireland having fallen off, together with the consumption of wheat during the winter by cattle, and the exportations to America and to our own Colonies of wheat and flour having been very far beyond the extent generally supposed. The foregoing causes may account for the present deficient supply, and the impression that the forthcoming crop will be less than an average, may induce some little speculation on wheat; and the Joint Stock Banks have assuredly increased the circulating medium of the country, and *this last circumstance has no trifling effect on prices*, whatever may be said to the contrary by the disciples of the "supply and demand" doctrine. A plentiful circulating medium is the cause of an extensive demand for the necessaries of life; and a high or remunerating price is the effect of this cause. A dense population without the means of purchase, forms no cause for the demand of the comforts of life, although it is assuredly the cause of demand for just so much garbage as will barely sustain human existence. The exportation of wheat and bacon from Ireland, and the demand for potatoes and buttermilk there, is a case in point, and consequently it is absurd to reason that with an increased population the demand for luxuries will increase, unless you have a like increase of circulating medium, or in other words, unless you first create the commodity necessary to negotiate the transfer of the various articles (which are generally admitted to be necessary to civilised life), from the producer to the consumer.—I am, Sir, your obedient and very humble servant,

Sussex, July 23, 1836.

AGRICULTOR.

### GRAND AGRICULTURAL DINNER AT THE MAIDSTONE NEW CORN EXCHANGE.

The dinner in celebration of the opening of the New Corn Exchange was held on Thursday, July 28, in that very commodious building. Lord Marsham presided, T. Rider, Esq. filled the deputy chair, and about 450 guests, principally highly respectable agriculturists from the surrounding districts, attended. We noticed amongst others, Sir W. Geary, Bart., M.P., T. L. Hodges, Esq., M.P., Wyndham Lewis, Esq., M.P., the Mayor of Maidstone, Revs. Messrs. Reeve, Parker, and Haslewood, Sir J. D. Thompson, Drs. Welch and Sibbald, Colonel Middleton, Major Wayth; Esqs. J. Jacobson, T. F. Best, Wykeham, Martin, J. S. Douglas, J. Brenchley, W. H. Stacey, &c. &c.

The usual loyal toasts were drunk with the healths of the noble Chairman, the Members for the County, and the Borough, &c., &c. Several excellent speeches were made, but we have not space for more than the subjoined.

Sir W. GEARY rose to propose a toast which was of such great importance that he begged gentlemen to fill their glasses—BUMPERS—[Sir William attempted to shout out this word in the style of the toast-master, of whose talent he really gave a very

tolerable imitation; the joke was received with great cheering.] He apologized for his presumption in supposing that any of them were not likely to do justice to the toast. It was one in which he was personally interested, as he believed to be the case, more or less, with every one round him, and demanded the respect of every company into which it could be introduced. No person, capable of reflection, could doubt him, when he said that he thought the agricultural interest of this country superior to every other. (*Cheering.*) He thought no one would deny that the agricultural interest was bound up with every other interest of this mighty empire. Whenever the agricultural interest was made to give way to the other interests, he thought that it would be a most unfortunate time for this country. (*Great cheering.*) When long wars were taking place, and bore hard upon the moral energies of this country, who was there to man their fleets and fill their armies but the agriculturists? He hoped that they would always be found combined under the great principles of truth. Their motto was "live and let live"—(*Renewed cheering.*)—and they only claimed that protection which they deserved of the country. He therefore would propose "Success to the agricultural interest, and may the rulers of this country never forget them, but give them that due attention which their importance demanded."—Drank with three times three.

J. ELLIS, Esq., of Barming, rose to return thanks, but such confusion prevailed that we could not hear a syllable he uttered, although it was evident from his gesticulations that he was speaking for a minute or two. The Toast-master and the noble Chairman in vain attempted to procure silence. Mr. C. G. Whittaker, however, was loudly cheered, and during the short period of attention which his interposition procured, Mr. Ellis addressed the meeting in nearly the following terms:—The having for the last thirty years attended every public meeting that has been held in this town, and most of those in London on the subject of agriculture, will I trust be an excuse for rising to thank the hon. bart. for the very handsome manner in which he has proposed the toast, as well as to express my gratification in witnessing the general warmth of sentiment in and from all parts of the meeting in drinking it. From the long and constant communication I have had with agriculturists from all parts, I am fully convinced they only ask for common justice, by being equally protected and taxed with the other classes of society.

T. L. HODGES, Esq., M.P. then rose to propose a toast, and, after a few sentences, was listened to with marked attention. He was afraid that at this period of the evening many of the gentlemen present might wish to depart for their homes, but it was some satisfaction to know that the toast, that had been intrusted to him, was the last upon the list. Although last, however, it was not least in importance, as it regarded the county of Kent, and which he believed they would drink with as much applause as that which had been proposed by his hon. colleague;—more particularly as this toast was a branch of agriculture almost confined to this and one other county. The toast was "Prosperity to the hop growers of Kent and Sussex." (*Great cheering.*) He rejoiced at the pleasant prospect which now presented itself to the eyes of the hop grower, for although he did not think that the duty would reach the sum at which some gentlemen had fixed it, yet he believed that no person would regret the fact unless it were the Chancellor of the Exchequer. (*Cheers and laughter.*) He wished also to congratulate them on the unequivocal symptoms

of improvement in the agricultural interests which were now developing themselves. It might be truly said, that the agricultural was the foundation of all other interests; but he would also beg to call their attention to the fact, that it was impossible for agriculture to flourish, unless trade and commerce also flourished. (*Great cheering.*) He was happy to mention an instance, in which this improvement in manufactures had been proved. He had been recently told by a Lancashire member, that the poor rates in Manchester, which were a short time since no less than twelve shillings in the pound, had been reduced to the comparatively insignificant sum of one shilling and fourpence. (*Cheers.*) This had not been caused by the operation of the poor-law, for it had not as yet extended itself into that county. Such was the improvement in the manufacturing interest, and the agriculturists were experiencing the benefit of it. The noble Chairman, in one of the many eloquent addresses which he had made on that day, had touched upon one subject, which had made a great impression on his mind—namely, the state of the agricultural labourers in the neighbourhood of this great town. This was a subject of deep and great interest. A great change had taken place in the condition of this class of men by the late alteration in the law. (*Hear, hear.*) Duties most important in themselves had now arisen, and pressed themselves on the attention of the people of property of this great county; and the question was, how they could best supply that assistance which the law had denied, and how to lay the foundation of a lasting improvement in the condition of the most important, the most useful, and, he might say, hitherto the most unfortunate, class of men. (*Great cheering.*) It would be their duty to provide the means of affording local assistance to the individual exertions of the industrious,—to assist every man within their influence, in endeavouring to obtain an honest livelihood for himself,—and to regard with compassion and great forbearance the occasional outbreaks which a change of condition invariably produced in that class of men. The local authorities of Maidstone were fully prepared to enforce the law wherever it might be outraged—but he was addressing men who would rather resort to any other remedy than the law. If the possessors of property which had been allowed to accumulate throughout this country—and he begged to say that no nation in the world possessed equal wealth with this kingdom,—he was quite satisfied that if the duties to which he had alluded were fairly performed by the possessors of this property—if they only assisted, from the ample store that Providence had given them, the industrious and deserving to struggle for themselves—he was quite satisfied that no amount of distress would ever endanger either the security or the property of this great country. (*Great cheering.*) He hoped that their increase of wealth would be accompanied with a corresponding increase of kindness, and that the rich would never fail to show the greatest regard for their poorer neighbours. Looking, therefore, with confidence to the improvement of agriculture—hoping that the improvement which had been commenced would continue its progress undisturbed; and that its recipients would use it for the benefit of the community, and thus lay the lasting foundation for the glory and prosperity of England—he felt the most sincere pleasure in proposing as a toast, “Prosperity to the hop-growers of Kent and Sussex.” (*Loud and long continued cheering.*) The toast was drank with the greatest possible enthusiasm.

The noble Chairman then left the chair, and the bulk of the company retired from the room.

## SMALL ALLOTMENTS.

Mr. Baker, of Cottesmore, Rutland, on Wednesday the 20th July, invited the clergy and the largest occupiers of land from the several parishes where this system has been at work upon Sir Gerard Noel's estate, to receive the seventh annual report and statement of prizes, which in this year were awarded by Mr. Cheetham, of Hambleton, Mr. Pickering, of Beaumont Chase, and Mr. Rudkin, of Langham Lodge, on Monday the 18th, Tuesday the 19th, and Wednesday the 20th. The party, as usual, were entertained by an examination of Allotments in Cottesmore and Barrow, some Farms and Stock, returning to Cottesmore at three o'clock. The whole of the business was carefully gone into, and the several prizes handed over to the parties interested in their neighbours' honourable and praiseworthy exertions and conduct. The whole were paid in new coin received that morning from the Mint. The usual topics for discussion being disposed of, the opinion of all present was taken as to the propriety of continuing the annual examination and prizes, of which notice had been given a short time previous to the meeting. They were unanimous in declaring that it was of importance to continue them; and many excellent and well-defined reasons were adduced in support of it. That the system of quantity of land, quality, contiguity, and annual examinations, surpassed in intrinsic worth all others, and was more valuable to all parties than any system of the kind that had yet come under their notice, and in this case Mr. Baker had matured and carried out in all its bearings the principle of his excellent letter addressed to Sir Gerard Noel, Bart., in February, 1832, which scheme had been so warmly supported by that kind-hearted, liberal landlord and friend to the working classes, both in money and personal attention. The following is a copy of the prize award:—

UPPINGHAM.—*Rev. — Dimock's Land.*

- 1st Prize, for good cultivation, 10s to No. 6, Samuel Riddle.  
2d ditto, for ditto, 7s to No. 7, Samuel Thorpe.  
3d ditto, for ditto, 5s to No. 4, Robert Stretton.

Given by Sir Gerard Noel, Bart.

- Commended—No. 2, Michael Cant; No. 12, George Nutt.

*Sir G. Noel's Land.*

- 1st Prize, for good cultivation, 10s to No. 12, Anty Stretton.  
2d ditto, for ditto, 7s to No. 17, Thomas Trigg.  
3d ditto, for ditto, 5s to No. 11, James Elliott.  
Commended—No. 8, Thos. Nutt; No. 7, John Page; 2s each.

Under the 11th Rule, “It is expected that every occupier shall attend some place of worship at least once every Sunday, &c. &c.”—Recommended by the Vestry.—Joseph Nutt, John Page, Wm. Baines, John Mould, Wm. Mould, John Coulson, Geo. Nutt, 2s each. Given by Sir Gerard Noel, Bart.

## RIDLINGTON.

- 1st Prize, for good cultivation, 10s to No. 1, John Haines.  
2d ditto, for ditto, 7s to No. 6, John Barfield.  
3d ditto, for ditto, 5s to No. 3, Wm. Wright.  
Given by the Rev. C. Swann.

Commended—No. 7, Edward Russell; No. 9, Thomas Manton; No. 11, Frances Pennystone; 2s each, by Sir G. Noel.

*New Allotments.*

- 1st Prize, for good cultivation, 10s to No. 5, Joseph Harris.  
2d ditto, for ditto, 7s to No. 7, Robert Manton.  
3d ditto, for ditto, 5s to No. 1, George Webb.

Given by Sir G. Noel, Bart.

Commended—No. 2, Joseph Woodcock : 3, John Dunmore : 2s each ; by Sir Gerard Noel, Bart.

Under the 11th Rule.—Joseph Bryan, Joseph Woodcock, John Dunmore, Geo. Pennystone, Fras. Penny-stone, Wm. Munton, Robert Munton, William Wright ; Edward Russell, Joseph Harris, Geo. Webb, Joseph Barfield, 2s each, by Sir Gerard Noel, Bart.

#### BARROW.

1st Prize, for good cultivation, 10s\* 5s† to No. 7, Fras. Simons.

2d ditto, for ditto, 7s\* 3s† to No. 5, John Leeson.

3d ditto, for ditto, 5s\* 2s† to No. 9, John Letherland. Those marked thus\* were given by the Rev. Henry Nevile, and those marked thus† by the Rev. John Hinman in addition.

Commended—No. 10, Wm. Freeman ; No. 1, Widow Munton ; No. 2, Wm. Huffill ; 2s each, by Sir Gerard Noel, Bart.

Under the 11th Rule,—John Letherland, Thomas Searson, John Leeson, Widow Munton, 2s each, by Sir G. Noel, Bart.

#### EXTON.

1st Prize, for good cultivation, 10s to No. 5, Thos. Bullimore.

2d ditto, for ditto, 7s to No. 37, John Martin.

3d ditto, for ditto, 5s to No. 31, John Scotney.

Very much commended—No. 35, John Wiles, No. 36, John Cross, 3s each.

Commended—No. 2, Everard Cole ; No. 21, Joseph Fant ; No. 24, John Young ; No. 32, Luke Hibbitt ; No. 40, Amos Hibbitt ; No. 43, Joseph Royce ; No. 44, Thomas Wilson ; No. 49, Wm. Webster ; No. 50, George Woodward ; 2s each.

By Sir Gerard Noel, Bart.

#### COTTESMORE.

1st Prize, for good cultivation, 10s to No. 9, John Tyler.

2d ditto, for ditto, 7s to No. 7, Robert Hill.

3d ditto, for ditto, 5s to No. 4, Widow Rawlins.

Given by the Rev. Henry Neville.

2s was also given by the Judges to Widow Rawlins.

Very much commended—No. 2, Widow Sharpe, 3s by Sir G. Noel, Bart., 4s by the Judges.

Commended—No. 22, Wm. Cox ; No. 23, Edward Young ; No. 5, Thomas Stimson ; 2s each, by Sir Gerard Noel, Bart.

Under the 11th Rule, and for general good conduct.—Wm. Chamberlain, Edward Osborn, George Allett, James Sneath, 2s each, by Sir Gerard Noel, Bart.

#### WHITWELL.

1st Prize, for good cultivation, 10s to No. 4, John Bolland.

2d ditto, for ditto, 7s to No. 2, Daniel Smith.

3d ditto, for ditto, 5s to No. 6, John Hibbitt.

By Mrs. Ellicott, sen.

Much commended—No. 8, Wm. Smith, 3s, by Sir G. Noel.

Commended—No. 1, Edward Smith, 2s by ditto.

Under the 11th Rule, "It is expected that every occupier shall attend some place of worship at least once every Sunday, &c. &c."—John Hibbitt, John Bolland, being reported to have attended punctually to this rule, and for general good conduct, 3s each, by Sir Gerard Noel, Bart.

Under the 11th Rule—John Allen, Robert Allen, Henry Hibbitt, John Woodward, 2s each, by Sir Gerard Noel.

#### PICKWELL.

1st Prize, for good cultivation, 10s\* 10s†, Wm. Lanc, aged 82.

2d ditto, for ditto, 7s\* 7s† to Wm. Hayes.

3d ditto, for ditto, 5s\* 5s† to Wm. Allett.

Those marked thus\* were given by Gerard Noel, Bart., and those marked thus† by E. W. Wilnot, Esq. in addition.

Edward Pears deserving of commendation.

The Gardens much superior to any previous year.

PARISH v. PARISH.—Comparative merits, quality of the land, situation, clean and useful husbandry, general management, and the number of years under the system—awarded to Riddington, it being the seventh year of tenancy, 2s each to all the occupiers, by Sir Gerard Noel, Bart.

The Ransome prize of one sovereign to the occupier of the best cultivated Allotment in any of the fields or parishes,—awarded to John Haines, of Riddington.

## RAILWAY COMMUNICATIONS IN AGRICULTURAL DISTRICTS.

(FROM THE CHRONICLE.)

One of the causes of general agricultural depression has been the want to the farmer of the means of transporting his produce, with rapidity and certainty, to those districts where larger and better remunerating prices can be obtained than in his own immediate vicinity. It is well known that, though extensive purchases of fat cattle are made every year, in Herefordshire and the neighbouring counties, for the London market, many are deterred from entering into the trade by the expense, trouble and difficulty, as well as certain loss, entailed in bringing beasts to London, the loss being always set down at 10 per cent. ; sometimes it is even much more. The consequence is, that the spirit of enterprise is checked, and the farmer loses the advantages of competition in the purchase of his cattle, and is often obliged to put up with prices that do not repay his expenses. Wherever railways have been established, they have been the means of removing this drawback upon agriculture. If railways are allowed in some parts of the country, they must be established in all ; if not, a monopoly would be enjoyed by the agriculturists in the railway districts ; thus the farmers near the Birmingham railway will, until other trunks projected for grazing counties are completed, enjoy the privilege of sending their cattle to the London markets in a few hours, to the exclusion of the other farmers, from want of facility of communication.

In order, therefore, to meet the demands of the farmers of Herefordshire, and to enable them to forward their produce to the metropolis in twelve or thirteen hours, which is precisely the number of days at present required, a railway has been planned and surveyed, which will connect the town of Gloucester, now the centre from which several important trunks radiate, with Hereford, passing through Newent, Dimock, and Ledbury, thus bringing railways from the metropolis into the very heart of this fertile and rich county.

The line of country selected by the Gloucester and Hereford railway does not present a single engineering difficulty—it is throughout nearly a perfect level, and this does away with all necessity for either tunnel or inclined plane, which form two most important drawbacks upon the economical construction of a railway ; whilst its being almost in a straight line the whole way, the distance from point to point will not exceed 27 miles in length. It is in consequence possessed of advantages such as no other line in England presents for construction. Independent of the immense traffic of live stock for the London market that must take place upon it, it will afford such facilities of transporting the goods and produce of Staffordshire and Warwickshire, on the one side, and the great and important clothing districts of Gloucestershire, and the eastern counties, on the other, as to open a new field of commerce altogether ; and it is only necessary to refer to the map to see at

a glance the important collieries with which it can be brought into immediate contact. The effect will be to reduce the price of the all important article of domestic and manufacturing consumption, coal, to at least one-third its present price in the neighbourhood of Gloucester, and to increase the carriage on the railway to an incalculable amount. But the most important consideration connected with the Gloucester and Hereford railway is, that it forms part of the actual line of road contemplated to be made for expediting the communication between London and Dublin; and it is probable that the time is but little distant when this road will be the one used, to the exclusion of the other great trunks, the shortest of which is twenty miles longer than this direct line. Not only then will the passengers and goods from fully two-third parts of Ireland, which are now conveyed along the great northern roads, come along this line; but as every day shows the necessity of having a harbour on the western coast of Ireland for American vessels to land and receive their passengers and cargoes, in a few years all merchandise, whether living or dead, destined for the metropolis of England and the adjacent counties, or coming from them to be exported to the United States, must be carried across the Gloucester and Hereford railway. It is, therefore, not possible to find a railway which combines such advantages as this does, whether viewed in reference to facility of construction, for there will be neither tunnel nor inclined plane along its whole course; and it will be the means of enabling the agricultural produce of Herefordshire, and the manufactures of Staffordshire, Warwickshire, and Gloucestershire, to be transported all over England, whilst it will cause activity in all the collieries of the district: and, though last not least, form part of the great line of road that will connect the great metropolis of England with that of Ireland, and will be one of the links of the chain of direct communication between the centre of England and the United States.

### TO THE EDITOR OF THE MAIDSTONE GAZETTE.

SIR,—As the columns of your Journal are always open to any information which may tend to improve the condition of the labouring population, I take the liberty of sending you the following hasty sketch of what I had the satisfaction of witnessing yesterday, in the parish of Hadlow, relative to the cottage allotment system.

Having received an invitation to attend a meeting of the Labourers' Friend Society at that place, I proceeded thither accordingly.

Perhaps I may here observe, that previously to the receipt of the invitation, I was not aware that any society of the kind was in operation at Hadlow. Judge then of my surprise to find that this society, although not six months in existence, was composed of all the principal landholders in the vicinity of that parish; that they had raised a handsome fund by subscription; formed an active committee, which committee had hired a field of eight or nine acres, contiguous to Hadlow, for the use of the labourers—drained a considerable part of it, and divided the part so drained into nearly forty allotments, for which as many industrious labourers drew lots, and were put in possession at a moderate rent. But what excited my greatest surprise was the excellent state of the cultivation in which I found every allotment. Beans, pease, carrots, parsnips, onions, potatoes, cabbages, in short every useful vegetable,

might here be found, in a state which would not disgrace a market-gardener—and this too, be it remembered, achieved since February last.

Too much praise cannot be given to the gentlemen of the committee for their prompt and effectual exertions on this occasion. By their efforts between thirty and forty families of our most valuable population have, I trust, been raised in the scale of society—have been made to feel that they have an interest in the soil worth protecting; whilst it is to be hoped that the degrading term of "parish pauper" will never attach to them or their children.

The noble example set by the gentlemen and landholders in the vicinity of Hadlow, will, I sincerely hope, be speedily followed by those who may reside where the allotment system has not been adopted. Let them reflect that if the Poor Law Amendment bill presses on the sound part of the labouring community, they have the power to remove the pressure, and by so doing to live surrounded by a happy and contented people.

I am Sir, most obediently yours,  
*Bearsted-house, 28th July, 1836.* C. WAYTH.

N.B.—I have no permission to mention names—therefore they are omitted.

### IMPORTANT TO FARMERS.

We invite the attention of our Agricultural readers to the following suggestions; those on the best time for cutting the corn, are curious, as they illustrate the difference of opinion which may exist even among the most intelligent and experienced farmers, on points which we should have supposed settled long since by common consent. As a precautionary measure, the stacking of corn at a distance from hay, and also from their buildings, cannot be too strongly recommended. Many of the destructive fires, by which large quantities of corn have been consumed in this and the adjoining counties, have been occasioned by neglect of this salutary precaution:—

WHEAT HARVESTING.—Professor Musgrave of Cambridge, has addressed a letter to Farmers, urging the advantage of cutting wheat early, whilst the straw is somewhat green. Though the corn may not look so plump, he says, it will weigh heavier, and be more highly prized by the miller, inasmuch as it will yield more flour, probably by two pounds to the bushel. But the great advantage of the practice is that the farmer will have double chance of getting in his crop well; for if bad weather come he may stop awhile without hazard, as corn ripens slowly in such weather; and he will also harvest it at less expense and with less loss from broken ears. Except in dry scorching Summers, he says, wheat is nearly ready for cutting if the grain is so far formed as not to give out a fluid milky substance when squeezed between the finger and thumb, although the straw may have lost but little of its greenness.—Mr. Thurnall, of Duxford, contests the position of the Professor.—"Wheat," he observes, "which has been cut green is generally found to be very deficient in weight—frequently from four to six, and even seven pounds per coomb; and the flour made from it considerably less in quantity, as well as of inferior quality. The latter circumstance may easily be imagined, when it is known that the farinaceous part of immature corn adheres tenaciously to the rind or bran; it consequently requires a greater degree of pressure of the mill-stone to detach it from the outward skin, and every miller who understands his business is aware

that excessive friction in grinding deteriorates the quality of the flour. There are besides the serious objections to early cutting, that both the wheat and the flour are more inclined to spontaneous fermentation, which generates heat, and they consequently will not so long retain their condition. As a farmer, I really am inclined to think that by early cutting a greater risk of weather is incurred, as the wheat requires to be a much longer time on the shock."

**STACKING CORN.**—In consequence of the calamitous conflagrations which have taken place in the last few years, it is strongly urged that Farmers should place their corn as far as possible from their buildings and their hay; and owners of property would greatly consult their own interests by enforcing the necessity of such precaution. It is no exaggeration to state that *many thousands of pounds* have been sacrificed in the last few years by the practice of crowding corn, hay, outbuildings, and dwellings into close contact with each other.

## FAILURE OF THE POTATOE CROP.

(TO THE EDITOR OF THE DUMFRIES AND GALLOWAY HERALD.)

*Castle Douglas, July 16, 1836.*

SIR,—From the various reports of the failure of the potatoe crop in almost every district of the country, and from being a sufferer myself, I was led to examine those I had planted in my garden, as well as those I have in the field, and with the aid of a powerful microscope I discovered the set of the potatoes filled with living animals of singular organization. They are of a light dun colour, with red spots on each side of each joint, and transparent, and I have observed some with 32 joints in their length, which does not exceed half an inch; each of these joints has five legs or feet on each side of the body, consequently in all 320—and I have therefore called them the potatoe multipede, or destroyer. Their heads are furnished with long horns; and their motions, when taken from the potatoe quick and lively, and when a small piece of the potato was laid upon the glass beside one of the animals, it was immediately approached, and most greedily devoured. By the aid of the instrument I could discern the animal in all its variety of stages, from the ova, till it attained its complete formation, but could not discover any of them in the earth around the plant—so that it would appear they are generated in the potatoes; and, as a proof of that, six bolls of potatoes, the remainder of between 30 and 40 bolls as taken from the field, were kept in a well ventilated potatoe house on the farm of Hightae, which, when I examined, there were few to be found that did not contain the identical insects in all their progressive stages of advance, and in no instance did I ever find any other animal but of the same description. I have also examined several gardens—the crops upon the farms of Torrs, Ernespie, Hillowton, Kelton Mains, and Hightae, and found in all of them the same failure, and produced from the same cause. And upon Hightae, where the injury is considerable, the potatoes were planted entire. There therefore remains no doubt that these insects are the cause of the calamity in this country, for these four years past; and, it is to be hoped, some benefactor to his native land will be fortunate enough to find out a preventative. Mr. Curry, who lately lectured here on Chemistry, &c., and who accompanied me in my examinations for four days, recommended the application of common soot to the sets before planting, in preference to hot lime; and from his scientific knowledge, I should feel inclined to recommend this—at least the suggestion is, in my opinion, worthy of a trial. If you consider these remarks deserving of publicity, you are at liberty to make any use of them you may think proper.—I am, Sir, your most obedient servant,

WM. YOUNG.

## THE SHEEP.—No. IV.

(From the Dumfries Herald.)

**Wool.**—Chalky soils, which are so notorious for injuring the fleece, are supposed to act in a corrosive manner, but the correct explanation is not, that the chalky particles attack the fibre in a direct manner, but that they render it brittle by absorbing the oily moisture with which it is naturally imbued.

The felting of wool may be defined to be a property depending on the curls and serrations of the fibre, by which it is allowed to move only with the root foremost, and by which it is enabled to catch and obtain a hold on fibres that are near it, so as to form a web or cloth. Felting is best brought into operation by alternate pressure and relaxation, which may be applied in a variety of ways; thus the ancient method, and one still pursued by the Tartars, was to tramp on a mass or layer of moist wool, so as to form a coarse clothing or carpet, while the modern and most perfect plan is either, as in hat making to apply pressure with the hands, or, as in the finishing of cloth, to pass the fabric repeatedly through rollers. The way in which a close fabric is formed by the juxta-position of a few scattered hairs, gave rise for long, as well it might, to serious disputations among philosophers, and the favourite theories of each, unbased as they were on observation, might, till now, have agitated the scientific portion of our manufacturers, had not the microscope brought to light much of what is true and valuable, as an assistance in our researches.

Moisture appears to be of service during the felting of wool, as it induces it to curl, and enables the fibres to expand, and catch one on another, after they have been bent and compressed by the force applied to them, and is of itself sufficient to felt a fabric, as we frequently perceive in the instance of stockings which are allowed to remain too long in water, when they become short from undergoing contraction, and resemble, after such treatment, an imperfect cloth. It is for this reason the latter, after tumbling over in all directions the fur of which the hat is to be made, wets it before applying pressure; and that the woollen manufacturer, after freeing the web from grease, soaps it before its subjection to the action of the rollers. Without felting, cloth would resemble a net, and would unravel on being cut, from the fibres crossing only in two directions; but the strokes of the mill put an end to this, by laying the fibres in every possible direction, and so twining them one with another, as to render them a coherent mass. Felting often takes place to a considerable extent on the sheep's back, especially in the heavy breeds, when they have been starved, and may always be traced to the wool having been saturated with wet. *Cotting* is only an injurious extension of felting, by which the wool is formed into hard thick knots, which can hardly be unravelled, and is said principally to affect the Cheviots.

The wool of this country is divided into two great classes—long and short—the former varies in length from 3 inches to 8 inches, and before being made into stuffs and worsted goods, requires to be deprived of its felting properties, by passing it through heated iron combs, which remove the feathery parts or serrations, and make it resemble silk or cotton. The shorter combing wools are in general use for hose, and are spun softer than the long combing wools. Short wool is employed in the cloth manufacture, and on that account is frequently called clothing wool. It should approach as much as possible to white, as a clear white ground is required for all cloths that are to be dyed bright colours, as

well as for those dressed white. Grey or black hairs injure the fleece very much, even though few and minute, as they give rise to reddish spots where the cloth is stoved; and as Herefordshire sheep are entirely free from this defect, they are reckoned peculiarly valuable for clothing purposes.

The breed exercises considerable influence on the wool—some sheep, as the merinos, being distinguished for the softness and beauty of the fleece; while others, as some of the small northern varieties, are famed for the very opposite peculiarities.

According to the opinion on the continent, any race of ewes, however coarse and long in the fleece, will, on the fourth cross of the merino ram, give progeny with short wool equal to the Spanish. Of the truth of this proposition, however, Dr. Parry of Bath justly expresses some doubts, derived from his own experience and that of others. But it is certain he adds, that one cross more will, in most cases, effect the desired purpose. "If we suppose the result of the admixture of the blood of the merino ram to be always in an exact arithmetical proportion, and state the native blood in the ewe as 64, then the first cross would give  $\frac{32}{64}$  of the merino, the second  $\frac{16}{64}$ , the third  $\frac{8}{64}$ , the fourth  $\frac{4}{64}$ , the fifth  $\frac{2}{64}$ , and so on. In other words the first cross would leave 32 parts in 64, or half of the English quality; the second 16 parts, or one-fourth; the third 8 parts or one-eighth; the fourth 4 parts, or one-sixteenth; the fifth 2 parts, or one thirty-second; the sixth 1 part, or one sixty-fourth; and so on. Now, if the filament of the Wiltshire or any other coarse wool, be in diameter double that of the Ryeland, it is obvious that, according to the above statement, it would require exactly one cross more to bring the hybrid wool of the former to the same fineness as that of the latter. This, I believe, very exactly corresponds with the fact. The difference between one-eighth and one-sixteenth is very considerable, and must certainly be easily perceived, both by a good microscope, and in the cloth which is manufactured from such wool. In the latter method it certainly has been perceived; but I have had hitherto no opportunity of trying the difference by the former. The fifth cross, as I have before observed, brings the merino-Wilts wool to the same standard as the fourth of the merino-Ryeland.—*Communications to the Board of Agriculture, Vol. v.*

Climate has much influence on the covering of animals, and in none more than in the sheep. In tropical countries, we find the fleece approaching more to hair than wool, as in the sheep of Thibet, so celebrated for the silky nature of their coat; and Burchell remarks, that the skins he brought from the Cape of Good Hope were often taken for those of an unknown quadruped, from the *furry* nature of their wool, if such it can be called, and thinks it is owing as much to the pasture, which is well adapted for giving those animals a soft and useful *fur*, though not suited like New South Wales, for the growth of the finest wool, and that the colony might turn this to great advantage.

The sheep of Herefordshire, Devonshire, and Coteswold Downs, are noted for producing sheep with fine fleeces. The Lincolnshire and Warwickshire kind, which are very large, exceed any for the quantity and goodness of their wool. The fleeces of the northern parts of this kingdom are inferior in fineness to those of the south, but still are of great value in different branches of our manufactures. The Yorkshire hills furnish the booms of that country with large quantities of wool, and that which is taken from the neck and shoulders is used when mixed

with Spanish wool in some of their finest cloths.—(*Penant's History of Quadrupeds.*)

We may conclude this brief preface to the wool trade, by a passing notice of the state of the wools in this part of the island some few years ago. Synson, who wrote in 1684, (MS. Account—noticed in Chalmers' *Caledonia*.) mentions that the people of Galloway had three kinds of wool—the laid wool, or smeared, the moor wool, and the Deal (Dale) wool. The first was named from the operation of laying or smearing the sheep, which he describes according to the modern practice. The moor wool was that of the hill sheep, which he says was the best and cleanest, as the sheep were kept in enclosures of stone-dykes. The Dale wool was not so good, and fouler from the sheep of the low country, being folded within earthen dykes. The wool was sold at Ayr Glasgow, Stirling, Edinburgh, &c., &c., while the sheep were generally sent to Edinburgh.

Chalmers remarks, that Lithgow, the traveller, who walked over this country in 1628, praises the sweetness of the mutton, and the fineness of the wool, which he says is nothing inferior to that of Spain, provided they had skill to fine-spin and weave it as they should. "Nay, the Calabrian silk had never a better lustre or a *softer gripe*, than I have touched in Galloway on the sheeps' backs."

**WOOL TRADE.**—Our first thoughts on the history of the wool trade, would lead us to regard it as little better than a dry detail of uninteresting facts, little calculated, either by name or association, to excite even passing attention. But such is not the case. It forms, in fact, a medium of connection for much that cannot but be amusing to the general reader, as well as important to him who studies it for itself alone, seeing that it embraces in its ample range the interests of mankind, and serves as a foundation on which are based some of the most engaging speculations that ever employed the minds of political economists. It has always ranked as an important part of national industry, and was, till lately surpassed by the cotton trade, the most important of all manufactures carried on in England.

Wool, since Eden closed its gates on our progenitors, has been a current coin, an important material on which has been employed the skill and industry of almost every tribe, and been the means of raising many a petty people to the hard won dignity of a nation. Man at first placed in a comfortable temperature, needed little as a defence against the vicissitudes of the weather; while fashion, then unthought of, or only as a sport, failed to interest the simple-minded races in the cut or texture of the coverings they wore. That the first dresses of mankind were formed from vegetable material, we have the highest authority for believing, as even at present the garb of the natives of some of our lately discovered islands consists of a simple girdle formed from rough cut reeds. But, as the dawn of knowledge smiled upon the savage, and animal sacrifice tutored him in the uncouth rudiments of a coarse anatomy, the superior comfort even of the untanned hide would be remarked, and the clumsy mantle of the Caffre hordes welcomed as a change. Time would not long elapse till roving dispositions, and the encounter of unstable climates, would show the wanderer the necessity of a fabric better adjusted by shape and pliancy to the nature of his wants, while the clinging of lock to lock of woolly fibre, would plainly tell the superfluous nature of the supporting skin, and point the way to make an ill-closed cloth.

Weaving, as we pointed out a short way back, is not absolutely necessary for the manufacture of cloth, since wool will felt, though far from evenly, without

the preliminary process of being laid in threads, so that cloth may be almost coeval with mankind without our being required to assign much mechanical skill or ingenuity to its inventors. But we have tolerably clear evidence, in the inspired writings, that weaving was known in the earliest ages, and also that it was trusted principally to the women. Thus Delilah wove Samson's hair, when he slept in her lap; and a short time after, it is written that the mother of Samuel "made him a little coat, and brought it to him from year to year." At a later period, Solomon thus describes a good wife:—"She seeketh wool and flax, and worketh willingly with her hands." Yet with all this their machinery was not of the perfect nature of our machinery, nor their looms like our looms; for, even at present, the women of Barbary do not use a shuttle in the making of their blankets, but conduct every thread with their hands. That garments were in those early ages made of several pieces, joined by needle-work, is evident on a perusal of Genesis xxxvii.—3; Judges v.—30; and 2nd Samuel, xiii.—13; and this plan is allowed to be even more ancient than the weaving of flax. Job, who flourished, or is supposed to have flourished, before the Israelites left Egypt, shows clearly by his words, that flannel clothing was then in vogue.—"Let me be condemned if I have seen any perish for want of clothing, or any poor without covering; if his loins have not blessed me, and if he were not warmed with the fleece of my sheep;" and that the cloth was woven, and not produced by beating, is evident from his saying, when complaining of his sad estate, "My days are swifter than a weaver's shuttle."

Tents, so frequently mentioned in Bible history, are well known to have been anciently made of skins, the application of canvass to that purpose being a comparatively modern invention; and we find the phrase "Manere sub pellibus," "to remain under skins," frequently employed by the Roman writers, to signify "to be encamped." The early progress of the wool trade is veiled in much obscurity, and only to be discovered by seeking for it in a mass of fable, which in many instances serves the purpose of enabling the old writers to string together, without the risk of being laughed at, much of what, if inquired into, would have amounted only to vague report, or idle supposition.

Phryxus, the son of Athamas, King of Thebes, flying with his sister, Helle, from their step-mother, and riding upon a ram that had a golden fleece, sought to cross the Dardanelles, when Helle was drowned, and the sea was ever after called the Hellespont; but Phryxus arrived safely at Colchis, between the Black and Caspian seas, and having sacrificed the ram to Mars, hung the fleece in a temple dedicated to that god. By this the ancients no doubt meant to intimate, either that Bœotia, the birth-place of so many talented Greeks, furnished the people of Colchis with sheep, or that they sent them sums of money in exchange for the wool of Caucasus. That the latter is the more probable, is apparent from Ovid's account of the Argonautic expedition, in which he shows the hardships that Jason encountered in his successful endeavours to bring the golden fleece from Colchis back to Greece, implying the value of the article, and leading us to believe that the Colchians had, by the aid of severe penalties, long monopolized the growth of wool. Moreover, Mount Caucasus and its neighbourhood, form the favoured nursery from whence the improved fleece-bearing animals have gradually spread over the rest of the world, and as such would be looked upon, at the time we speak of, by adjacent tribes with jealousy and

hatred, for where is the nation that can calmly behold a compeer engrossing a hoard of wealth, nor struggle to dispute their prices by a market of their own!

The old poets and historians, when wishing to express a person of great riches, always spoke of him as having a great number of sheep or cattle. Thus Ulysses, who, according to Homer, possessed more wealth than any twenty heroes of his age, numbered among his stock about thirteen thousand sheep or goats. David, also, whose riches were of the same kind, according to 1st Chronicles, xxvii., set Jehonathan over his treasures in the field. All the Greek poets affirm, that the wealth of kings originally consisted in herds and flocks; and so it did for ages after their era, and in some few countries almost to the present day.

In reading Homer, we are reading the most ancient author in the world, except the great law-giver, Moses, and receiving not only pleasure from the beauty of his imagery, but instruction from the minute accuracy with which he details the manners, customs, laws, and politics of the people he describes. According to him, the Greeks were well clothed in woollens, and just as fearful of cold as men could be. In the fourteenth book of the *Odyssey*, he represents Ulysses as complaining bitterly of the frost during a nocturnal ambuscade, having forgotten his cloak, and trusted to the warmth of his vest, and shelter of his shield.

"Here longer in this field I cannot lie,  
The winter pinches, and with cold I die;  
And die asham'd (Oh, wisest of mankind,)  
The only fool who left his cloak behind."

Sheep skins were also used in the time of Homer as beds, and have continued so to be employed by every people on the verge of civilization.

"The honest herdsman rose as this he said,  
And drew before the hearth the stranger's bed,  
The fleecy spoils of sheep, a goat's rough hide  
He spreads; and adds a mantle thick and wide."

Among the Romans, woollen clothes were alone held in estimation, linen being regarded as a mark of effeminacy, and even a criminal luxury, by that brave and hardy people; indeed, some of their greatest families boasted that they made no use of linen in their houses, and it only spread by slow degrees over their territories. They carried the manufacture of woollens to great perfection; and, though despising luxury in linen, had yet no objection to a great variety of flannel dresses, which, as in the case of the rugs or shaggy cloaks (*endromidæ*) worn by their ladies after exercise, and alluded to in an annoying way by Juvenal (*Satire vi.*), were often of the most beautiful pattern, and ostentatious colours.

The great number of ordinances, penal laws, privileges, and immunities, which were issued in Spain in different reigns, for the preservation and special government of the sheep, were owing to a succession of kings being lords of all the flocks, and considering them, as they are styled in their commands, "*the precious jewels of the Crown.*" A royal council was formed, under the title of the Council of the Grand Royal Flock, which, we believe, exists to this day, though the late monarchs have not had a single sheep. Various exigencies of state in different reigns, alienated by degrees the whole flock from the Crown, together with all its privileges, which were collected and published in 1731, under the title of "*Laws of the Royal Flock,*" a volume in large folio, of above 500 pages.

The last flock of the Crown, consisting of forty thousand sheep, was sold, owing to war and want,

to the Marquis of Iturbietta, during the reign of Philip the First. So highly are sheep and their attendants esteemed in Spain, that Isidro, the protecting saint of Madrid, was firmly and popularly believed to have been a shepherd; and that Pope Sextus Quintus the Great, was verily a shepherd, and not a swine herd, is as strictly adhered to by a devout and Catholic populace.

The cloth manufacture of Padua is a very ancient one, and the noble Venetians were, for its encouragement, obliged by law to wear no other cloth, at least for their gowns; but the *Tunica Patavinae* were so coarse, in the time of Martial, as would appear, from the following couplet, that the senators contrived and found means to evade it:—

“Vellera cum sumant Patavinae multa trilices,  
Vix pinques tunicas sorra secare potest.”

L. 14, Ep. 143.

Coarse Paduan drabs exhaust the wasted fleece,  
A saw can scarce work thro' the stubborn piece.”

It appears evident, from ancient history, that the first inhabitants of all the countries of Europe were either naked, or nearly so, owing to their ignorance of the clothing art. Such, in particular, was the uncomfortable state of the inhabitants of this island, who are supposed only to have used the bark of trees, and to have smeared themselves with unctuous matter, after the manner of other savages, to protect themselves from cold. Some writers are of opinion that the inner bark of the tree alone was used, and that not till woven into a kind of cloth, such as the South Sea Islanders at present make.—(*Henry's History of Great Britain*.) Long after the people of France, Spain, and Germany were decently clothed, they continued the latter abominable practice, so differently were they situated in regard to intercourse with strangers, and opportunities of acquiring the useful arts. It is impossible to discover, with certainty, when or by whom the custom of wearing clothes was introduced into Britain. Some suppose that the Greeks, and after them the Phœnicians, who visited the Scilly islands, and sometimes the continent of Britain, for trading purposes, first awakened in the breasts of our savage ancestors a desire for comfortable protection, as both these nations were celebrated for elaborate attention to their attire.

“The Britains,” says Cæsar, “in the interior parts of the country, are clothed in skins,” and these are supposed not to have been sewed together, but to have been cast over the shoulders as a mantle,—indeed their stiffness rendered them aught but pleasant, as we may guess from their endeavours to make them soft and pliable, by steeping in water, beating them with stones and sticks, and rubbing them with fat. The people of the southern parts are supposed to have been well acquainted with the dressing, spinning and weaving, both of flax and wool, having been instructed by a Belgic colony long before the invasion by the Romans. Two kinds of cloth which they manufactured at that period (B. C. 55) were much celebrated among their invaders, the first a thick harsh cloth being worn by them in cold northern climates as a sort of mantle, and agreeing in many respects with our Lowland plaids, the other made of fine wool dyed of different colours, woven into chequered cloth, and corresponding to our Highland tartan. They are also supposed to have made a felt of wool, without either spinning or weaving, and to have stuffed mattresses, with the portions shorn from it in dressing. The Britons must have been well acquainted with the dyeing of wool, as the Gauls were celebrated at that period by Pliny, for their invention of a “method of dyeing

purple, scarlet, and all other colours, only with certain herbs.” The herb which they chiefly used for the purpose was the glastum, or noad, and they seem to have been led to the discovery of its value in dyeing cloth, from their former use of it in staining their bodies. A deep blue having been the colour they stained their skins, it long continued a favourite, particularly with the Caledonians, as a tint for all their dresses. Though the most civilized of the ancient Britons were tolerably acquainted with the most essential branches of the woollen manufacture, yet that useful art was not much diffused in our island till the landing of the Romans, whose soldiers, being almost all drawn from the plough, were well adapted, when settled in the country, to foster the arts of peace. In order to benefit the country and themselves, their emperors were at great pains to discover and procure the most excellent artificers of all kinds, particularly the best manufacturers of woollen and linen cloth, whom they formed into colleges or corporations, with various privileges, and governed by a procurator, who was, however, under the direction of that great officer of their empire, the Count of the Sacred Largesses. In this manner, it appears the first woollen manufactory was established at Venta Belgarum, now Winchester, in the year of our Lord 55, or 100 years after the conquest of the country.

No mention ever occurs in the ancient writers of the importation of sheep into Britain, from which we are led to suppose that they had found their way into it long before its forcible separation from the Continent by natural convulsions. Camden, in his work on Britain, quotes, from an old orator, part of a beautiful panegyric on the great Constantine, in which the happiness of Britain is most eloquently described, and its advantages in regard to sheep most graphically depicted.—“Innumerable are thy herds of cattle and thy flocks of sheep, which feed thee plentifully and clothe thee richly.” So that, allowing for the high-flown nature of the verbiage, the sheep of the island must have been far from indifferent, and well worthy of any trouble the grasping Romans might be put to in the erection of manufactories.

The Caledonians were supposed by the Romans to be almost entirely destitute of clothing, but in this they were misled, it being their custom to strip before advancing to battle, a plan which would not only serve them when grappling with an enemy, but would also allow them to move rapidly even in a fen. Apart from this, many nations have got credit for going naked, who were, in reality, perhaps clothed with tolerable decency, owing to an absurd and careless mode of expression common in conversation, that of calling every thing naked which is only partially so. Of this we remember an illustrative couplet, almost amounting to a bull, but unluckily we cannot give our author—

————— a vest had on,  
Which from a naked Pict his sire had won.

The upper garment of the ancient Britons, and all the other nations, was the plaid resembling the mantles of skins they had formerly used, and worn on their first introduction only by persons of rank, so great a luxury were they esteemed. For a considerable time they had no other garments but these mantles, which, being scanty in the extreme, left their legs and arms entirely naked. This was, however, soon remedied by the introduction of the braccæ or breeches, formerly mentioned, which resembled our breeches and stockings united, and continued for many years a fashionable article.

The history of our wool and the woollen manufac-



ture at one period and in one point of view is the history of our public revenue, while in a succeeding period it becomes the capital object of our commerce, and the important subject of our political councils. The preserving and supporting it against foreign rivals, the due regulation of its numerous branches, and the proper restrictions that were deemed requisite to the commercial benefits resulting from it to this country, have occupied our ablest statesmen for more than a century past. The value of our wools to the legislature was so universally acknowledged, that they formed the subject of a nursery-book, curiously entitled "The rearing of London bridge upon wool sacks," and alluded to in a bantering way by Beaumont in his "Knight of the burning pestle." The first legal mention of our woollen manufactures occurs in 1224, in an act of Parliament made for the regulating of the breadth of cloth.

(To be continued.)

## CASTRATION.

BY PROFESSOR VATEL, ALFORT.

**CASTRATION BY THE CLAMS.**—This is chiefly practised on the horse, the ass, and the mule. It is seldom adopted for the bull, unless there is reason to fear that the operation by *bistournage* cannot be executed.

The necessary instruments are, a keen convex bistoury, or a razor; two pieces of packthread, moderately strong; a pair of pincers or forceps, and the clams.

The clams are two inflexible pieces of wood, usually consisting of a portion of elder-branch split along the middle, and being about three quarters of an inch wide, and five or six inches long.

Before it is cleft, a notch is to be cut round it about an inch from each extremity, and large and deep enough to hold two or three rounds of the pack-thread. When it is split, each of the corresponding extremities is sloped away from the notch to the end, and which, when the pieces are adjusted and tied together at that extremity, permits them to be separated in the form of a V.

Some practitioners, when they do not use elder, make a groove along the plain surface of each of the pieces, in order to contain a caustic substance, as corrosive sublimate or blue vitriol, made into a paste with meal or turpentine, in order to hasten the mortification of the parts on which the clams are placed.

The animal is cast on its left side, if the operator is a right-handed man, but otherwise on its right side. A piece of web is then passed round the fetlock of the hind leg which is uppermost, and, being brought to the fore arm on the same side, exposes the genital parts. The operator now seizes with both hands the left testicle (the animal being supposed to have been cast on that side,) holds it tightly, and slides his left hand so as to embrace the spermatic cord above the testicle: the scrotum is thus tightly stretched over the testicle. The surgeon then takes the bistoury in his right hand, and, proceeding from before, backwards, he cuts through all the envelopes of the testicle, if he intends to perform the *uncovered* operation: or he only cuts through the scrotum and dartos muscle, if he means to attempt the *covered* operation.

In the first case, the testicle immediately protrudes from the cavity which contained it; in the second case the operator tears with his fore-finger

the cellular tissue which unites the scrotum with the tunica vaginalis. The operation having proceeded thus far, the surgeon lays down the bistoury, and seizing the testicle with the right hand, pulls the cord gently, but steadily, in order to draw it down. If the animal strongly contracts the cremaster muscle, nothing will sooner distract his attention, and cause him to cease his frequently powerful action, than pricking his lips. Then taking the clam in his right hand, and the testicle in his left, he will place the clam on the spermatic cord, above the epididymis, sliding it from behind, forwards: an assistant immediately seizes the clam with his pincers, and compresses it, and permits the operator to tie it firmly with the packthread. The same is then effected with regard to the other testicle.

The clams ought to compress only the spermatic cord, and not the envelopes of the testicle, and they should be tied sufficiently tight to stop the circulation of blood in the testicle. Some practitioners cut away a portion of the testicle before they release the horse, in order to diminish the extension of the cord by the weight of the testicle. Others leave the testicles entire.

After the operation, the horse is much depressed: he appears to be confounded by his new feelings—he carries his tail between his legs, his head hangs low, and he walks with his thighs apart from each other. Being returned to the stable he crouches behind from the pain which the continuance of the clams produces; he should be tied securely to the manger, lest he should tear off the clams, and he should be carefully watched. A cradle should also be placed round his neck, and he should be bled if he appears to be irritable and feverish.

Some veterinarians, after the operation, lead the horse to the watering place, and suffer him to remain there a considerable time. Others lead him about for some hours, if the weather is fine, and repeat the exercise on the three or four succeeding days, until the suppuration is established. This last method of proceeding is the one most generally followed, and the most beneficial.

The testicles become mortified in about forty-eight or sixty hours after the application of the clams. They are either left to drop by their own weight, or the packthread which confines the clams being cut through, the decayed portion of the spermatic cord is cut through with a pair of scissors.

During the first ten or twelve days after castration the animal is kept on gruel, with hay or grass, according to the season of the year; he is not exposed to any current of air, or to anything which can arrest the process of suppuration, or induce a metastasis of inflammation, always a very serious thing in such cases.

The consequences of castration by the clams are pain, inflammation, swelling, and suppuration. The pain and inflammation are inevitable. When they exist only in a moderate degree, no particular treatment is required. Swelling always precedes suppuration, and usually does not commence till the second day after the operation. It may be slight or extensive. In the first case it usually commences at the anterior part of the prepuce, and does not subside until the healing of the wounds is considerably advanced. Nothing is required but to guard against whatever would impede the favourable progress of the case. When the tumefaction is great, so as to spread around the wounds and under the belly, and to ascend

along the cords, and render the superior part of them hard and painful if touched, the case is becoming serious. The strictest antiphlogistic treatment, general and local, should be adopted. We are sometimes compelled to have recourse to scarifications, which often give vent to a red and glutinous serosity, that indicates a tendency to gangreen. The suppuration which is established after castration is always preceded by engorgement of the parts in the neighbourhood of the wound, and by a febrile action, which begins to develop itself on the second or third day, arrives at its height on the fourth, and continues until the suppurative process has been fully established. In this process a serous fluid is secreted, at first yellow becoming afterwards a little white, and finishing by assuming the character of pus. This laudable secretion, the progress of which may be interrupted by a variety of circumstances, increases until the tenth or twelfth day; then diminishes more or less slowly, and does not cease until the 24th or 30th day.

**CASTRATION BY CRUSHING OR BRUISING.**—1. *The Horse.*—This cruel operation, which, on account of the torture it produces, ought never to be practised, has been advised on the spermatic cord, by placing it on some hard substance and crushing it with repeated blows; and on the testicles by the same mode of proceeding, or by compressing them forcibly between the claws of a large pair of forceps.

2. *The Bull.*—On this animal the operation is performed in somewhat the same way, and some veterinarians give decided preference to this mode of castration. The instruments necessary for practising it are, 1st, Cords to confine the head of the bull to the manger, or a tree, or a post, by means of several turns round the horns and the fixed body. 2d, Two hobbles, which being fastened round the hind feet, and then brought between rings or nooses that are attached to the fore legs and continued over the withers prevent the animal from kicking. 3d, Two bars of wood, each of them seven feet in length, placed under the belly of the animal, and supported by two men, in order to prevent him from lying down. 4th, Two round pieces of wood thirty or thirty-four inches long, and six inches in circumference. 5th, A large hammer with a flat surface similar to that used by shoemakers; and 6th, A cord of moderate thickness eighteen or twenty inches long: four assistants will also be required.

The bull being fastened by the head and his legs secured, and the bars held under his belly by two of the assistants, one of whom also lifts the tail, the operator places himself on his knees behind the animal, and examines whether the spermatic cord and the testicles are sound. He then places the two cylindrical pieces of wood, one before and the other behind the scrotum, and about an inch above the testicles; the two other assistants, the one on the right and the other on the left, lay hold of them, and press them together so as tightly to squeeze the spermatic cords, drawing them backwards: they then perform a quarter of a circle with them, that which is in front being a little before the other, and the hinder one a little inferior, and so they hold them firmly, resting the extremities of them on their knees.

The operator having remained in the same position grasps the testicles with his left hand, and draws them firmly down, so that the cord may lie still more tightly over the inferior piece of wood; and then, having the hammer in his right hand,

he repeatedly strikes one of the cords lying upon the inferior and posterior cylindrical piece of wood, always letting his blows fall on the cord, and not too hardly, that he may not produce a degree of disorganization that may lead to sloughing. He continues this according to the age and size of the subject, until he thinks he has sufficiently crushed the cord, and then he attacks the other cord in the same manner. Having proceeded thus far, he ties a ligature rather tightly about the testicles, in order to prevent them ascending (many veterinary surgeons, however, neglect this precaution,) and rub the whole of the scrotum with lard or butter, in order to prevent the intense inflammation which might otherwise follow all these contusions: and, having once more examined the parts, in order to be perfectly assured that he has thoroughly crushed each of the cords, in order so that the absorption of the testicles may be prompt and complete, he releases the patient.

The effect of this operation is the obliteration of the spermatic vessels, and the consequent atrophy of the testicles, which diminish to the size of a small nut. The animal seems to suffer much less pain after the operation than would be deemed possible. During the first four-and-twenty hours he probably experiences a slight degree of fever, but he rarely loses his spirits or appetite; or, should he do so, a moderate bleeding averts all danger. The whole of the genitals become more or less swollen, and exhibit a red hue; at the expiration of eight or ten days this disappears, and the testicles are speedily absorbed.

**CASTRATION BY TORSION OR BISTOURNAGE.**—This mode of operation is oftenest adopted for bulls, but sometimes however for rams and for goats. It is seldom used for horses in any of the departments of France, but there are certain countries in which the horse is commonly subjected to it.

1. *The Bull.*—Castration by bistournage is effected in the following manner:—The animal is suffered to remain in his usual place, but is fastened to the manger so that his head shall be as low as possible. One assistant only is wanted, and four or five pieces of worsted and small cord twisted together, and five or six inches in length.

The assistant seizes the muzzle of the bull with his left hand, and the left horn with his right hand; and the operator then laying hold of the testicles, the animal does not often make any resistance, unless it is necessary to use considerable force in order to reverse them, and then probably he lies down but he soon gets up again.

The operator, bending, with his legs apart, or being on his knees, or behind the bull, seizes the inferior part of the scrotum with one hand, and with the other gently pushes the testicles as high up into the bags as he can, and again letting them descend, and so on alternately sliding them upwards and downwards three or four times. This is particularly necessary when the scrotum is small, and the skin hard, and the testicles large and round, in order that the scrotal integument may be distended, and it and the spermatic cord rendered more pliable; but it is useless when the testicles are oblong or small, and their envelopes and the spermatic cord relaxed.

The operator, next with his thumb and fore and middle fingers of the left hand, takes hold of the left spermatic cord at its origin near the epididymis; then taking the scrotum at its inferior part on the same side, between the thumb and fingers of his right hand, and pressing on the lower part of the testicle, first from before hindwards, and

then from below upwards, and keeping the left hand fixed and steady, he reverses the testicle, at the same time returning the inferior part of the scrotum to its proper place, the inferior part of the testicle having become the superior, and this organ being pressed against the posterior part of the cord.

The operator then loosening his hold of the cord with his left hand and the scrotum with his right, seizes the inverted testicle and its cord with both hands, presses it lightly downward, and, applying his right thumb on the origin of the spermatic cord, he with his left hand causes the testicle to make a circular movement around the cord, maintaining the testicle in this position with his left hand, to which he gives a circular movement in order to receive the testicle as it passes round the back of the cord. He continues this until he has caused the testicle to revolve twice around the cord, and thus to compress the vessels and nerves, and the spermatic canal. From this double revolution of the testicle the operation takes its name, *Bistournage*. Finally, the operator quits hold of both the testicle and the cord in order to seize the inferior part of the scrotum with both hands, and, placing them one above the other, he forces the testicle as near as he can to the inguinal ring.

He proceeds in the same manner with the other testicle, and heterminates his operation by passing the cord of worsted and hemp several times round the scrotum and below the testicles, and securing it with a double knot. The cord should be drawn tightly enough to keep on the scrotum, but not to cut through it, or even to wound it. If it were to slip off the scrotum, the testicles would descend, and the spermatic cord would be untwisted; and if the scrotum were to be cut through, the support of the testicle would be lost. The principal art of the operation consists in the application and the security of this ligature. The animal may now be released.

This mode of castration requires no previous preparation or after treatment, especially if the patient is at grass. The inflammatory engorgement that follows is very slight; it is no more than is necessary for the prompt and complete obliteration of the spermatic cords. The ligature round the bottom of the scrotum may be removed forty-eight hours after the operation. It is rare that any accident follows this mode of castration.

If the ligature should have come off soon after the operation, or the the torsion should have been incomplete, the testicles will resume their natural situation; and a new operation must be proceeded on, unless a considerable enlargement of the cords should have supervened, when it will be impossible to twist them again until the inflammation shall have subsided. If, however, the cords should remain for a considerable time large and hard, it will be necessary to have recourse to castration with the clams, and in the *uncovered* way.

2. *The Ram and the Goat*.—The bistournage is performed on both these animals, if they have not been deprived of their organs of generation, a little while after their birth, and when the testicles have attained a certain stage of development. The operation is very easily performed. An assistant sitting, takes the animal between his knees. After having thrown him on his back, he manages to hold the two legs on either side in each hand. The operator, standing before him, proceeds in precisely the same manner which has been already described.

## LINCOLNSHIRE AGRICULTURAL SOCIETY.

The seventeenth anniversary of this society was held at Lincoln on Thursday August 11. The show of cattle and horses was very large and rather superior, but that of sheep exceedingly scanty. The attendance at the show was numerous and highly respectable; and amongst the visitors we observed Henry Handley, Esq., M. P. for the Southern division; Chas. Chaplin, Esq.; R. A. Christopher (late Dundee), Esq.; J. Fardell, Esq.; &c. &c.

A Dinner took place as usual at the City Arms hotel to which 71 gentlemen sat down. The chair was occupied by J. Fardell, Esq., and the vice chair by—Jepson, Esq., of Heighington. On the right of the chair sat H. Handley, Esq.; Chas. Chaplin, Esq., and R. A. Christopher, Esq., took their seats on the left. Among the company were noticed T. Brailsford, Esq., Barkwith; Major Brown, of Welbourn; P. Bromhead, Esq., J. Bullen, Esq.;—Lamb Esq., of Auburn; R. Dawson, Esq., Withcall; and F. Oates, Esq. The second table was presided over by Chas. Hayward, Esq., having Rd. Carline, Esq., the Secretary, as vice.

The cloth having been drawn, the chairman gave the following toasts:—"The King" "The Queen and Royal Family;" "The Noble President of the Institution, Lord Brownlow, and thanks to him for his venison" (*cheers*); "Restoration of health to Lord Yarborough, and thanks to him for his venison."

The Treasurer, CHAS. HAYWARD, Esq., then announced the state of the funds of the society, from which it appeared that there is an improvement from the last year's account; and that there is now a balance of 25*l.* 4*s.* 4*d.* in favour of the society. The money taken for admission at the Show-Yard door that day was 16*l.* 1*s.* Mr. Hayward then proceeded to read the schedule of the prizes awarded; (for which, as well as for a list of new subscribers, see advt.)

Parkinson and Bell having been called into the room, the chairman handed over to them the amount of the prizes they had gained, and warmly recommended them for their praiseworthy conduct.

The CHAIRMAN next proposed the health of the Members for the county.

Mr. HANDLEY said on the part of his absent colleagues as well as himself he begged to tender them his thanks. It was always a matter of great gratification to him to attend on such occasions as the present, and not the less so now, because it was the commencement of his own holidays. He could assure them it was much more congenial with his feelings to discuss agricultural matters there than tithes and corporations elsewhere. (*Hear and laughter*.) He could not too warmly commend societies like this, and he repeated his gratification in being present; because it was by such means they became more likely to improve the breed of their stock, and thus better able to contend against those chances to which agriculture was liable. (*Hear*.) He had no doubt his colleagues, if they had not found that their duties required their services in another place, would also have attended that meeting.

The CHAIRMAN next proposed the Members for the City, regretting that their parliamentary duties prevented their attendance. (*Cheers*.)

The CHAIRMAN again rose, and proposed the health of the successful candidates, Mr. Thacker and Mr. Dawson, who returned thanks.

Mr. HANDLEY proposed the health of their excellent chairman, who briefly returned thanks.

The CHAIRMAN proposed the health of Charles

Chaplin, Esq., when three times three hearty cheers were given.

MR. CHAPLIN expressed himself highly flattered by the kind remarks with which the chairman had introduced his name. It afforded him great pleasure to see so large and respectable a meeting, and also to hear so satisfactory a report of the funds as the treasurer had that day given. He trusted if things went on as they at present did, they should speedily experience an increase of their numbers. *Agriculture was now looking much better than it had done, and he hoped the change for the better would manifest itself in that society.* He repeated his thanks for the honour the company had done him, and assured them as long as he lived he should have great pleasure in attending their meetings.

The CHAIRMAN next proposed the health of the Judges, and thanks to them for their valuable services on the present occasion. Mr. Smith, of Middle-Rasen, returned thanks.

The health of the Stewards was next drank, and thanks to them for the onerous duties they had performed, for which Mr. Jepson, the vice-chairman, returned thanks.

The CHAIRMAN said he had another toast to propose, and one which he was sure would meet with the approbation of every one present. When he mentioned the name of Mr. Hayward, they would all acknowledge his diligence in the society's behalf, and the smallest compliment they could pay him would be to drink his health.

MR. HAYWARD expressed himself highly honoured by the manner in which his name had been received. He was glad to find the accounts turned out so well, from which he augured that they would continue for years to come, to proceed in their useful career, through the favour of those who were supporters of the institution. The farmers certainly did not come forward in the way he could wish, for they were proverbially a supine class—yet if they would only come and see how the society's affairs were conducted, he was sure they must heartily approve it. (*Cheers.*) Mr. Hayward then alluded to the new subscribers, one of whom, Mr. Christopher, had kindly consented to act as Vice President for the ensuing year; and he begged leave to propose his health, which was drank with loud cheers.

MR. CHRISTOPHER expressed his sincere thanks for the manner in which the last toast had been received; and said he felt it was the duty of every person who had an interest in agriculture to do all he could in its behalf, and he had great pleasure in giving his name to that society. (*Loud cheers.*)

MR. BRAILSFORD, one of the members of the Lincoln and Lindsey Association for the Protection of Agriculture, said, as they happened to have present a distinguished member of the House of Commons, who had devoted a great deal of time to the agricultural question, he hoped he might be allowed to call upon him to favor them with a history of the circumstances, and the cause of the non-adoption of the report. He begged to call on Mr. Handley. (*Loud cheers.*)

MR. HANDLEY said they had at that table those gentlemen whom the Lincoln and Lindsey Agricultural Protection Society deputed to the Central Society in London, with a view to consider what should be the recommendations submitted to parliament in the shape of protection or otherwise. He (Mr. Handley) also, as a member of that association, had the pleasure of meeting Mr. Brailsford there, and the result of their deliberations was, that Parliamentary Committees were appointed to inquire into the state of Agriculture. He happened to be named

as one of the committee of the House of Commons. He attended that committee from day to day, and from week to week, and although considerable dis-appointment had been expressed here and elsewhere that no report had been produced, before he sat down he hoped to convince them that, notwithstanding the report was agreed upon, a mass of evidence had been obtained that must be made available to their benefit in the ensuing session of parliament. The committee was composed of gentlemen of all opinions and persuasions. Even he (Mr. H.) entertained a great difference of opinion with many eminent agriculturists as to the remedy best calculated to improve their condition. There were 23 County Members, with three or four of his Majesty's Ministers, and six or seven most important Commercial Members of the house, included in that committee. After most diligently examining all the evidence produced, it was difficult to come to any satisfactory conclusion; and as to the nature of the evidence offered, if they had the patience to wade through three or four large folio volumes, they would be as well acquainted with it as himself. Each gentleman put questions to the witnesses upon the particular points he wished to elucidate, and at the conclusion the chairman in the usual manner was called upon to give a report. Of that chairman, although differing from him in many points, he believed the committee were unanimous as to one matter, namely, of the impartiality and assiduity with which Mr. Lefevie discharged the duties of chairman. He produced a report, which if it had not been alluded to in the House of Commons, he (Mr. H.) should hardly have felt himself at liberty to enter upon there, as it was a private document for circulation amongst the members alone; but it having got wind, and being known to many, there was no necessity longer to keep it a secret. It commenced by acknowledging very extreme distress among the agriculturists, more particularly as regarded those who were occupiers of strong clay lands, and stated various reasons as the grounds of the distress, among others that of in some instances excessive rents. It then went on to recommend a remission of the Malt Tax, and that the graduating scale of duty upon Foreign Corn should never descend below 5s. instead of 1s. as at present; also that Liverpool, Wakefield, and London, should be excluded from the returns. There were other minor points recommended, such as the advantages of a statistical board, &c. After the report was produced, the committee adjourned for a few days; and when they met again to discuss the matter, Sir James Graham said he found so little to assent to in the report, and knowing the great difference of opinion that existed among the members of the committee, he felt that unless they were unanimous in their recommendations, it would have little or no weight with the House of Commons, on whom they must depend for carrying out whatever was required. This was seconded by Lord Chandos, and he believed there could not have been found any two members to vote against it.—The next question was, how to give a report which should be carried with some degree of unanimity in the committee, and that seemed to him as difficult as it would be to make any thing intelligible of the language uttered at the tower of Babel. (*Laughter.*) He was in favor of the repeal of the malt tax, and of increasing the duties on foreign imports, more particularly Russia tallow; he also recommended a return to the silver currency (*hear, hear*), but on canvassing the committee, the majority was found to be against it. Other remedies were suggested, but were equally unsuccessful in getting a majority; and they all agreed in rejecting the report to which Mr. Brails-

ford had alluded. If they had agreed to any report, it would have been a milk-and-water sort of a thing; and as he (Mr. H.) stated at the time, he felt he would much rather report the evidence without any remarks on it, than agree to a report going from that committee in which he could not concur. (*Hear.*) The hon. member then adverted to the part he had taken with reference to a repeal of the malt tax, and also to a report by the Commissioners of Excise, in which they recommend the reduction of the malt tax one-half, hoping thereby to prevent illicit malting.—It had been proposed to remit the duty upon foreign barley, but the increased demand which it was expected would be required by the reduction of the malt tax one-half, it was stated could not be supplied by home produce. Upon this point he had from time to time felt it his duty to get all the information he could, and in attending the committee upon agriculture he had taken a considerable part in the examination of the witnesses, and always to this point, "Is it your opinion, if there should be a large increased demand for barley, that it is in the power of the agriculturists of this country to produce that increased demand?" Without one single exception every witness answered decidedly in the affirmative. (*Hear, hear.*) The hon. gentleman then returned to the original question, and expressed his belief that the report in question was one which they would be sorry to see carried. He hoped, however, that in the next session of parliament a measure would be founded upon the evidence which would meet with the satisfaction of the Central Committee. In the mean time, much might be done to guard against the occurrences of the past, by their own individual exertions.

Mr. BRAILSFORD returned thanks in the name of the company for the very lucid and satisfactory answer which the hon. member had given to the question that was put to him.

The CHAIRMAN proposed the health of the Secretary, Mr. Carline.

Mr. CARLINE briefly acknowledged the compliment that had been paid him.

Mr. HANDLEY proposed the health of Mr. Collitt, (the legal agent of Mr. Perkins, the builder of Islington Market,) who was present. Mr. H. expatiated upon the advantage to the graziers that Islington Market was certain to prove, admirably as it had been arranged for the reception of stock, and avoiding all the inconveniences and cruelties that were necessarily incurred at Smithfield, and concluded by proposing the health of Mr. Collitt.

Mr. COLLITT, in returning thanks, entered at some length upon the Islington and Smithfield market question; and showed the superior advantages which the former possessed over the latter.

Mr. HANDLEY—With reference to his sending stock to Smithfield as had been stated by his levianth friend, (*laughter.*) he certainly had sent ten or twelve, but he would send no more.

Mr. DAWSON said, as a friend to Smithfield market, and he believed he sent as much stock there as any one in this county, he must express his opinion in favour of it. He did not think it was possible to establish another market, because all the buyers went to Smithfield, and it was of no use to send stock where there were no buyers.

Mr. BULLEN said he must confess he was surprised at the observation that had fallen from his friend, Mr. Dawson, for he had given him credit for being on all occasions a man of sense and judgment; but, in the present instance, he must take the liberty of differing; and though he acknowledged himself much younger in judgment as well as age, yet, as

he had paid great consideration to the Islington market question since its establishment, he could not give way to Mr. Dawson on that point. Mr. Bullen then compared the facilities of the two markets, Islington and Smithfield, and wondered how any man could give the preference to such a nuisance as Smithfield.

After a few other toasts were given, the Chairman retired, when Mr. Fardell, jun., was called to preside, and the evening passed off with the utmost conviviality.

## ON HORSE SHOEING BY ONE-SIDE NAILING.

BY MR. J. CARLISLE, WIGTON.

(From the Veterinarian.)

Messrs. Editors.—I have now been a subscriber to your valuable Journal for a length of time, and confess that I never perused it without finding something very important; and I hope it will ever abound in scientific information worthy the attention of every veterinarian. In order to contribute my share, I beg to make a few remarks on the highly important system of one-side nailing, brought into general notice by that ingenious and praiseworthy gentleman, Mr. Turner, to whom the public is much indebted.

I should have been glad had this subject been taken in hand by a more talented and scientific veterinarian, who could have done justice to that little practised yet unrivalled system of one-side nailing. When I say unrivalled system, some may probably think I am getting out of bounds; but I speak from diligent and practical observation, combined with a knowledge of the anatomy of that vascular and delicate organ, the horse's foot.

Horse shoeing is certainly a very important operation, and has been much studied, and many improvements made in the art by several of our veterinarians; our learned Professor, Mr. Coleman, has made the horse's foot his principal study, and has explained the anatomy of that organ with the greatest minuteness; yet there remains a large field for cultivation.

In the first place, I shall ask my professional brethren one question. Supposing we are called to give our advice in twenty cases, out of this number shall we not find ten of lameness in the feet? I venture to say that you will answer in the affirmative; and the major part of these horses are suffering from contraction, which I consider the most deadly foe which that elastic organ has to contend against, and which the veterinary surgeon finds the great difficulty in subduing.

Now, an injudicious method of shoeing is generally the cause of contraction: hence disorganization, ossification of cartilage, navicular lameness, thrushes, &c.: in short, it is a complicated lameness; and the shoeing smith (in general) must bear the blame. The horse is turned over to the veterinary surgeon; his shoes are pulled off, his soles are pared out, and all the exuberant parts of the horn cut away with a drawing knife; in short, the whole horny box is made as yielding as possible. A blister is then applied to the coronet, and with the addition of leather and tar stuffing, the shoes are again nailed to the feet, with four nails placed in each quarter of the shoe. O thou universal fetter! what an absurd conclusion of his well-meant endeavours to check the progress of contraction and set at liberty the elasticity and vas-

cularity of that organ which is so wonderfully adapted by nature to perform its office.

Our alternative now remains between the old system of shoeing, and the one suggested by Mr. Turner,—that of one-side nailing; there is no other system of shoeing that deserves consideration. For my part, I would earnestly recommend all who are engaged in our laudable profession to give Mr. Turner's plan a fair trial. I have done so myself with the most perfect success; although at first I did it with fear. In consequence of the shoe being attached to the foot by little more than one side, it appeared to me to be insecure, yet, I saw (in another point of view) its superior advantage over the shoe in common use, as it would admit of more freedom to the foot. I was therefore resolved to put the system of one-side nailing fairly to the test; and I will pledge my truth and honour, that even in hunting, posting, and on roadsters of every description, I have used it with success.

Having proved the security of the shoe, it only remains to show the advantages resulting from Mr. Turner's mode of shoeing over that in general use. By a frequent application of this unyielding hoop (which is attached to the foot by four nails in each quarter) the horse's foot undergoes a wonderful alteration in its formation and structure, even before the animal has arrived at the age of five years; and I attribute it solely to this fettered system of shoeing; and if that system is continued, we may ever expect to meet with a good supply of contracted feet. One moment's reflection will clearly prove, that the shoe in general use will certainly impede the functions of the foot, destroy the elasticity to a great degree, constrict the vascularity, and cause a general disorganization of the whole horny cavity. Now, if a shoe with nails only at one side be attached to a foot that had never before suffered from the mutilation of the drawing-knife or the restraint of a shoe, we shall find that this foot will retain its natural formation even during the hardest work which this valuable animal is subject to undergo; whereas, on the other hand, if we apply the shoe in general use (i. e.) a shoe firmly attached to the foot by four nails placed in each quarter, and rivetted, we shall then witness the reverse effects; for after its first application, it gives that complicated organ a tendency to contraction: and from this evil spring almost all the maladies the foot is subject to. All this, however, is too well known to require any further explanation.

Now, one-side nailing has done wonders on account of the restored freedom to the foot which this shoe so perfectly admits of; and by this regained elasticity the foot is able to perform its functions and remove the apparent constipation: it then begins to assume its natural formation, the lameness is totally or in a great measure removed, and the horse pursues his labours with more ease and pleasure to himself, and greater security to his rider.

Permit me to recommend the above system as a good preventive against corns, and the principal auxiliary as a curative. In consequence of the play of the quarter, the compression and concussion are, in a great measure, removed, which I consider the principal cause; and by the application of the drawing-knife in skilful hands, those great ends may be obtained, to our own credit and the satisfaction of our employers.

I do not flatter myself with the idea of converting the opinions of a whole fraternity; yet the above hints may serve to operate on the minds of a few, so as to put the system to the test, and prove its superiority before the enlightened world; then we shall have the pleasure of seeing it practised in every

shoeing forge, both at home and abroad, and then, and then only, we shall boast of a perfect reformation in the art of horse shoeing. This will require time, and the perseverance of the few, to prove its utility in despite of the prejudices of the many. *Nil desperandum.* A recent author has told us, that "for great truths there will always come a time and place."

## CULTIVATION OF POTATOES.

TO THE EDITOR.

Sir.—I observe it stated, that in some counties there is a great failure of the potatoe crop; this, I think, may be remedied by sowing the seed. Sets will not last above twelve or fourteen years; after that time they decline, and hardly return treble seed. I tried the experiment last year in a small way, and the produce was astonishing. What is very remarkable is, that these seedlings produce potatoes of different kinds, and sometimes new sorts are procured. It is no difference whether the apple comes from one kind or another. I saved the red rough seed, and I had five sorts from it.

The following is the method I took to get them the size of hen's eggs in one year:—Take a bunch of potatoe apples, of any sort, in November, when they are ripe; hang them up in a warm room during winter, and at the end of March separate the seed from the pulp by putting them into a basin of water until they are soft; squeeze them with the fingers; gently pour off the water, and sow the seeds in drills with the feathers of a goose quill in a good bed of earth. When the plants are about an inch high, draw a little earth up to them with a hoe in order to lengthen their main roots: when they are about three inches high, dig them up and separate them carefully from each other in order for planting out in the following manner:—Prepare a piece of fresh ground by trenching it well, dig up the seedling plants as before directed, and plant them out in the ground thus prepared in such a manner that there be 16 inches between each plant. As they advance in growth, let them receive one or two earthings up in order to lengthen the main root, and encourage the shoots under ground. By this management potatoes may be brought to a good size in one year.

Southmoulton, July 19.

T.

THE LONDON VETERINARY MEDICAL SOCIETY.—We understand that no compromise or approach to reconciliation has taken place; but that it is the intention of the present Committee of Management, that the Meetings of the Society shall, in future, be held at the residence of Mr. Vines.

FEMALE REAPERS.—The practice of labourers' wives assisting in the harvest field is becoming more general in this county than formerly, and, by increasing considerably the earnings of the poor, tends greatly to promote the comforts of their cottage-homes. The Chelmsford and Essex Agricultural Society are endeavouring to foster this spirit of industry, and we beg to remind the farmers that three prizes—one of 20s, one of 15s, and the other of 10s—are given to the wives or widows of labourers (in the employ of a member) who shall have earned the most money during harvest by cutting corn. We are sure the farmers of the neighbourhood will further the object of the Society, by giving those who are willing, an opportunity of competing for these prizes.—*Chelmsford Chronicle.*

## EXCERPTA CURIOSA.

1597.—In Carrick, are kyne, and oxen, delicious to eate; but their fatness is of a wonderful temperature; that although the fatness of all other comestable beasts, for the ordinarie vse of man, doe congeale with the cold aire: by the contrarie, the fatness of these beasts is perpetually liquid like oile.

1765.—There was in the parish of Braunston, in the county of Rutland, an ewe which had seven lambs, all alive, within less than a year; and when fat, did not weigh above fourteen pounds and a quarter.

1765, July 14.—A curious mare, 28 inches high, from the East Indies, was brought in a coach from Gravesend to Leicester Meuse, and after being curried and dressed, carried in a coach to Carleton-house, when it was shown to the Prince of Wales, who seemed highly pleased with it; afterwards it was carried in a coach to the Queen's Meuse. This was a fine little animal, of a dun colour, the hair resembling that of a young fawn's. It was said to be four years old, well proportioned, had fine ears, a quick eye, and a set of fine teeth, with a handsome long tail, and very good natured.—Qy. Did she breed in England?

It cannot be too extensively known, for the benefit of breeders and fanciers of horse-flesh in general, that by pursuing the plan adopted by Jacob of old amongst the flock of Laban, horses may be bred of any colour or possible combination of colours. Dr. Thomson, of Hamilton, in the case which lately took the round of the newspapers, actually followed the suggestion of the Patriarch, and got a celebrated animal painter to take Batty's beautiful horse, which painting was placed constantly in the stall before the mare during the period of utero-gestation. We know of seven gentlemen in this neighbourhood (Hamilton) who are following the same course with their mares this season; and we only fear that the mania may extend among the farmers, and tend to annihilate the celebrated Clydesdale breed. An animal painter has taken a residence in town for the purpose of enabling himself to supply the demand of the country gentlemen for fancy horses.

## MACHINE FOR THE UPWARD TRANSMISSION OF WEIGHTS.

A very ingenious machine for the upward transmission of weights of any description is now on exhibition at the Mining Hall, next Exeter-st., and deserves the attention of mine proprietors, wharfingers, and all persons who have the management of extensive stores, as one well calculated to save a great deal of time, labour, and expense. The construction of this power is very simple, and its steady operation is quite assured. Its chief agent is a pair of wheels; or, if necessary, a series moving with their diameters in the direction of the weight to be raised,—say the shaft of a mine. Taking the one pair of wheels, moving on the same fixed axis, we find that from the end of a radius or arm in each, a chain descends, so as to hang on opposite sides of a square passage. To each chain are suspended, at different but regulated distances, quadrangular frames, to the upper sides of which strong projecting iron rims, moving on the principle of the hinge, are attached. The boxes, or receptacles for the weight to be raised, have corresponding edges on each side. When the wheel above is turned, and a single box below is placed in connexion with the lowest frame, it is caught by its rim, and with one revolution of the wheel is sent up as high as the frame on the opposite side to that on which it is borne: here it is again caught and sent up to the apparatus on the opposite side again, and so on, by alternate transmission, it is brought to the top of the shaft.

The machine being kept constantly laden below, and its wheel constantly turned above, it follows that at each revolution of the wheel a box is delivered; and thus, in an exceedingly short space of time, a vast body of matter can be carried up through any depth of shaft. It is not easy to describe such machines, however simple they may be, in very simple or intelligible language, and we have not been much practised at specifications. We must therefore leave scientific men to understand us through their own quick intelligence; and to all others whom the matter may concern, we recommend the employment of their own eyes. The machine could be most humanely employed in great mines in quickly sending the workmen up or down, to save them from their present tedious and tiresome expedients for that purpose. In unloading ships at wharfs its operation would be found amazingly rapid and proportionably convenient. It may be remarked also, that its operation is wholly unaccompanied by danger, and that its speed may be accelerated or diminished, or it may be stopped altogether at any moment, with perfect facility and convenience. On the whole, we must confess that we were struck with the complete efficiency of this admirable invention, which we are glad to find is protected by patent.

ROYAL SPORTS.—Louis the Eleventh ordered the Abbot of Baigne, a man of great wit, and who had a knack of inventing new musical instruments, to get him a concert of swine's voices, thinking it impossible. The Abbot accordingly mustered up a number of hogs of several ages, and placed them under a pavilion covered with velvet (before which he had a sound-board, painted, with a certain number of keys), thus making an organ; and as he played on the keys with little spikes, which pricked the hogs, he made them cry in such tune and concert as highly delighted the King and his Court.—Is there not in this story something covert as to the usual treatment of the people by Kings?

HORSE RACING OF OLD.—The deed is still preserved among our city archives, by virtue of which the Town Cup is annually given at Salisbury races. It bears date March 28, 1654, and is a compact between Sir Edward Baynton (as the representative of certain noblemen and knights who subscribed a fund for the purpose) and the mayor and commonalty of Salisbury. Under this deed the latter received 320*l*., and thereupon bound themselves to provide annually for ever, "a faire cupp of silver gilt with gould," of the value of 18*l*.. Among other curious regulations to be observed at the race for the cup, it is ordered, in the aforesaid deed, that the corporation shall provide yearly "three men with muskets to be charged with powder, to be discharged as followeth—that is to say, one of the said three men to stand at the first myles end from the starting place of the said race, and there discharge his musket as the runninge horses passed by him; one other of the said three men to do the like at the second myles end from the said starting place; and tother of the said three men to do the like at the end of the third myle from the said starting place." The improvements in the speed and breed of our modern race horses have long since rendered unnecessary this very ingenious method of urging them to the goal.

CUMBERLAND.—As one of Mr. Thomas Pearson's workmen was mowing a field of grass, in a secluded place, near High Heskett, he cut over a hare without doing the least injury to the animal. The hare did not offer to stir from the spot, upon which the man laid down his scythe and lifted her up, when he discovered to his amazement, no less than eleven young ones under her; he immediately set her down, and she again took her place upon the seat without the least apparent fear. Several gentlemen have since visited the place, and on one occasion they saw three old hares in the field and near the seat, and they are of opinion, that the eleven young ones are the progeny of the three hares, more especially as some are considerably larger than others.

## WOOL FAIRS.

## DEVIZES WOOL AND CATTLE MARKETS.

(ABRIDGED FROM THE DEVIZES GAZETTE.)

As we stated in our last, both these markets on Thursday were remarkably well attended, and business to a very considerable extent was effected, notwithstanding the opposing circumstance of neighbouring fairs being held on the same day. With regard to the facilities for the disposal of Wool, there is but one opinion:—Devizes is better situated than any town in the West of England, for a Wool Mart; and it is also generally considered, that a very large Cattle Market may be established. The greater number of our neighbouring graziers, and many of the opulent dealers, although living at a distance, have promised to give it their best support. About three o'clock in the afternoon nearly 200 persons partook of the Ordinary at the Assembly Rooms. On the removal of the cloth, the customary loyal and other toasts were drank in succession. The Chairman then proposed success to the *Devizes Wool and Cattle Markets*; and dilated on the advantages they would confer on the town and neighbourhood. He also begged to propose in connection with the toast, the health of his hon. friend and colleague, who had taken a very great interest in promoting these markets.

Mr. ESTCOURT rose, and in appropriate terms expressed his grateful sense of the very kind feeling evinced for him, assuring the company that he attached the highest value to their good opinion. Although he was at all times desirous of promoting the good of the town by every means in his power, he feared that greater credit was attributed to him in the present instance than he merited. He had been one only of a large number, who took part in forwarding that which he now believed was permanently established—a Wool and Cattle Market in Devizes.—There was again great reason for congratulation on this the second Wool Market. He was happy to find that there had been no diminution in the interest taken—no diminution in the quantity of wool exhibited and sold—and above all, no diminution in prices; the business done was also upon a sound basis, without any artificial inducements held out. He would repeat what he said on a former occasion, that Devizes was formed by nature for a Wool Market; and that there had been great supineness in not establishing it before. After a few more observations, Mr. Estcourt proposed the health of the Chairman, to whom he thought the company were particularly indebted, as he had come purposely from Portsmouth to lend his aid and influence to the proceedings of the day. *Drank with three times three, and repeated cheers*

CAPT. DUNDAS, after thanking the company for the compliment paid him, observed that he was at all times ready, whenever his services were required. His residence at Portsmouth was but temporary—for three years, if he and his gallant and excellent friend under whom he served should so long live; but wherever he might reside, no distance, however great, should ever be an obstacle to his using his best efforts to promote the interests of the town and neighbourhood of Devizes.

Mr. POLHILL passed a high but a justly merited eulogium on Mr. Salmon, and proposed his health.—The toast was drank in the most warm and flattering manner, and afforded Mr. Salmon a strong proof of the very great esteem in which he is held by his townsmen and neighbours. It was some time before the cheering ceased.

In returning thanks, Mr. SALMON said, if ever he wanted words to express himself, it was on the present occasion; for he was there as a private individual only—holding no official situation, and he therefore flattered himself that the kind feeling shown, must be attributed to personal regard, arising from a long acquaintance. For any part he might take in promoting the welfare of the town, he claimed no merit—his interests were interwoven with theirs. He could not refrain from adding his congratulations on the success which had attended the Wool and Cattle Market. He was not in a station

to possess his thousand acres, or to send his thousand fleeces to market; but he had on many occasions the pleasure of acting the part of mediator between landlord and tenant, and generally with success. He most cordially thanked the company for the kind manner in which he had been received, and with great sincerity drank their good healths.

CAPT. DUNDAS then proposed *The Magistrates of Hants*, and the health of Dr. Quarrier, (one of that body) who had done the company the honour of dining with them. *Drank with three times three.*

Dr. QUARRIER, in returning thanks, said, it was impossible for him to express the high sense he felt of the honour conferred upon him by the gallant chairman proposing, and by so highly respectable an assemblage so cordially and kindly uniting in drinking his health, a stranger among them. He had been but a few days in Wiltshire, but during those few days, he had been deeply impressed with the high cultivation of their lands, and the advanced progress of agricultural improvement evinced around the neighbourhood. He might be permitted to state, that the farms of his friend on his right hand, (Mr. S. Mills,) must excite the admiration of all who viewed the extreme order which reigned throughout his extensive occupations. It was delightful to observe the glad and bright countenances of his labourers, expressive of the spirit of industry infused into them by their employer; and he would venture to say, that from John O'Groat's house to the Land's End, nothing could exceed the admirable cultivation of the lands of Elston, and its adjoining farms. He had also had the gratification of visiting the manufactures at Wilton—where the manufacturer seemed to vie with his neighbouring agriculturist, in giving employment to men, women, and children. They seemed to be prosperous; and, he was happy to observe, in a most improving condition. He was one of those who must deprecate the attempt made to sever the agricultural from the manufacturing and commercial interests. In the present state of society in England, all were dependant one upon the other. The agriculturist rose corn, wool, &c.; the manufacturer wove the wool; the commercial and shipping interest disposed of the produce with increased value. It was by the healthful combination of all those interests that the whole could prosper; and any person who might deteriorate the one, must most assuredly injure the whole. It had afforded him the highest gratification and delight to observe the prosperity of Wiltshire. He should long—very long—remember the agreeable and pleasant day he had spent among them; and he again drank with the most perfect sincerity and satisfaction, success and prosperity to the Wool and Cattle Market of Devizes.

The CHAIRMAN announced that Mr. Long, one of the members for the Northern Division of the County, had consented to act as chairman at the next Wool Market Ordinary in February; and that Mr. Budd, Mr. Jonathan Grant, Mr. W. Ferris, and Mr. Thos. Lavington, would be the Vice-presidents.

Mr. BUDD said, although he had pledged himself to do all in his power to support the wool market at Chippenham, he would with great pleasure act as one of the Vice-Presidents at the next Devizes Wool Market Ordinary; for he was convinced that those markets wherever held, had a tendency to uphold the interest of the farmer. These were stirring times, and required every man to be at his post. It would be but of little service to seek the assistance of others unless they exerted themselves. A great deal remained to be done. Improvements had already been made, and many more must take place. They had hitherto placed too great a dependence upon the landlord, and too little reliance upon themselves. It was not by a mere reduction of rent that any considerable relief could be effected, but by their own energies. [*Some disapprobation was here manifested, and a cry of "it won't do! it won't do!"* Mr. Budd proceeded.] Some gentlemen exclaimed it won't do; but he would contend that it would do. He would ask those gentlemen whether any reduction of rent would altogether compensate for a reduction of 10s or 12s per sack in the price of wheat? No! but he would tell them what would—greater at-



tention to the land—superior cultivation, and consequently a larger produce. He would admit that they had experienced a heavy gale of wind, and many an honest man had been blown overboard; but there had not been, there was not, that deep and general distress that some persons would wish to make appear; and he would again say that those who were desirous of getting forward must trust to themselves, and not to their landlords. (*Renewed disapprobation.*) Mr. Budd said he would not willingly utter a word that should give offence to any one. He was not a landlord, and therefore could not be supposed to speak from selfish motives,—nor was he bred a farmer; but from his childhood he had been taught never to despond. It was perseverance and energy that the British navy overcame all difficulties and dangers, and rode triumphant on the ocean; and by perseverance and energy, Agriculture would rear her head and prosper. God forbid that he should for a moment contend that landlords had not a duty to perform as well as tenants; and if any landlord neglected his duty, he would say *shev him up!* What he wished to impress upon the company was, that by trusting too much to others, it frequently happened they relaxed their own efforts, and sometimes became unnerved and powerless. Rely upon it (said Mr. Budd in conclusion,) that it is by perseverance, and by perseverance only, that we shall weather the storm.

Mr. T. LAVINGTON said, it might perhaps appear arrogant in him to address the company, but having been one of those who manifested disapprobation at some of Mr. Budd's observations, he would not shrink from giving his reasons for so doing. That gentleman had said—every thing depended upon the farmer—not upon the landlord. Now this was a doctrine that might do very well for great capitalists like Mr. Budd, but in his opinion it was very ill-calculated for the little farmer like himself. He agreed with Mr. Budd, that the farmers were bound to bring their utmost energies into action, and he believed they did; but every one must concede that seasons of depression and distress occasionally arrived, against which no energy, no industry, could successfully compete. To whom then should the farmer look for assistance, but to his landlord? The landlord was his natural protector; and landlord and tenant must pull together. He was aware that he was speaking in the presence of magistrates and landlords, but whilst he had expressed himself (as he always should) freely and openly, he hoped he had done so without giving offence.

Mr. S. MILLS having obtained permission to propose a toast, first congratulated the company on the very large attendance at the Wool Market that day. The quantity of Wool exhibited (he said) was certainly not greater than at the former market; with regard to quality, he had scarcely ever seen finer—some of it being far superior to the Southdowns of Sussex; and the prices, he was glad to observe, were inclining upwards. Amidst the adverse circumstances with which the farmer had to contend, it was therefore matter of congratulation that he could obtain a fair price for his wool. An observation had fallen from Mr. Budd, in the correctness of which he certainly could not concur. Mr. Budd appeared to think that agriculture had been merely fanned by a gentle breeze, from which, instead of being depressed, she rose with freshened vigour; but in his (Mr. Mills's) opinion, she had been visited with a storm, a recurrence of which would carry desolation before it. She had suffered extreme distress, but he was not without hopes that she would revive. He had often thought that there was too much speculation—too great a competition among the farmers in taking their farms; and in some degree they lowered their respectability and independence. They did not make their bargains with that cool, nice calculation that either the tradesman or manufacturer did; and it very frequently happened that they engaged to give a much higher rental than the farm would enable them to give. In such cases, they were obliged to depend upon what was called the liberality of the landlord at the audit-table; but which there would not be that necessity to exercise, if the farm was taken upon equitable terms. An excessive rental was also, in the long run, injurious to the

landlord, inasmuch as he relied upon that he could not possibly continue to receive, and which may be said to be a fictitious income. Mr. Mills then paid a high compliment to the exertions of Mr. Budd both by sea and land, observing that the services he had rendered his country entitled him to be received with open arms by every company of Englishmen. He concluded by proposing as a toast, the healths of the gentlemen who attended the wool-hall, and the cattle market, that day, as purchasers.—*Drank with three times three.*

Mr. ROSSITER of Frome, returned thanks on behalf of the wool-dealers; and Mr. JAMES of Salisbury, on behalf of the cattle-dealers.

The CHAIRMAN next proposed a bumper toast to the health of Mr. Bethune Bayly—a gentleman to whom the company were primarily indebted for the establishment of both the wool and cattle market.—*Drank amidst loud and continued cheering.*

Mr. B. BAYLY said it would be great presumption in him if he for one moment supposed that he merited the compliment passed upon him. The duties of Secretary had certainly fallen to his lot, and he had performed those duties with pleasure and with zeal; but they were far too humble to entitle him even to the slightest praise. The market had been established by the united exertions of his fellow townsmen and neighbours, and he was truly happy that it had been so far successful; but to ensure its permanent prosperity, still farther exertions were required. It depended indeed upon themselves, whether, both the Wool and the Cattle Market should retrograde or go forward.

CAPT. DUNDAS proposed as a toast *The Yeomanry of England*, and with it the health of one of the best specimens of English Yeomen—*Mr. Young of Marden.*—*Drank with applause*, and Mr. Young returned thanks.

After some other toasts had been drank, Mr. Neate was sent for, and on his arrival, the CHAIRMAN said in the name of the company he publicly thanked him for the very handsome dinner he had provided, and begged to drink his good health. The whole company followed the example, and drank Mr. Neate's good health—a compliment which was suitably acknowledged.

The company then separated.

## LEWES WOOL FAIR.

The annual Lewes Wool Fair took place at the Star Inn, on Tuesday, July 26. At three o'clock about 100 of the principal flock-masters in the county with several wool-buyers sat down to dinner. Inigo Thomas, Esq. in the Chair, supported by the Hon. C. C. Cavendish, W. C. Mabbott, J. D. Gilbert, jun., J. E. Ellman, T. W. Scutt, H. Blackman, Esqs., &c. &c. 1

The cloth having been removed, and the usual loyal toasts given from the chair,

The CHAIRMAN proposed the health of the wool-buyers, and Mr. Elkington returned thanks.

Mr. JOHN ELLMAN said, in compliance with the request of the Chairman, he would proceed to give the company whatever information he could on the subject of the price of wool. He had been from home some time, and was ignorant of the nature of the bargains which might have been effected in this county, and could only give such information as he had been enabled to gather at other meetings which he had attended. He could report that at Thetford fair Mr. Coke offered his hoggets at 2s and his ewes at 1s 7½d, which offer was accepted without the slightest hesitation. The Duke of Norfolk's wool was offered at the same price and accepted, with the exception of the ewes, which being rather low in condition were sold at 6d per tod less. Mr. E. here remarked, that he regretted that the absurd practice of trimming lambs had not yet been discontinued by the farmers of this county. He knew that the farmers of Norfolk would be glad to purchase the Sussex lambs if they were unclipped. The hoggets were

universally sold at 2s. In ewe wool there was a great difference in price; on the whole he thought the Sussex ewe wool was considerably better than that of Norfolk. Mr. Bligh of Norfolk sold his at 2s and 1s 7½d. He (Mr. Ellman) had attended at Mr. Webb's letting of rams on the previous Friday. There were a number of wool-buyers present, and as much as 57s had been offered for the best wool. He argued well from the circumstance that a great anxiety had been shown to purchase wool of any—even the worst descriptions. Mr. Ellman concluded by offering his wool, consisting of 800 fattening, ewe, and ram fleeces, and 700 hoggets (not folded) to Mr. Legge at 64s a tod.

The CHAIRMAN proposed the healths of the Duke of Richmond, and the Earl of Egremont.

Mr. ELKINGTON (a wool buyer) observed that Mr. Ellman's account of the state of the wool trade, as far as it went was correct enough:—but Mr. Ellman had omitted to tell them all. He had not told them that at Thetford fair wool was bought at 1s 6d per lb. He (Mr. Elkington) had bought upward of 100 packs at less than 1s 6d.

Mr. LEGGE replied to Mr. Ellman. There was at present a good trade, and an increasing demand for manufactures, and he only feared that it might be impeded by the desire of the growers to obtain such high prices. Mr. Legge then offered Mr. Ellman 1s 10d per lb, or 58s 8d per tod, which offer was refused.

Mr. J. ELLMAN then made a proposition with respect to the period at which the fair was held. It proposed that in future it should take place on the 20th July. The shearing now was completed earlier than formerly, and it was very desirable that the fair should occur as soon after the shearing as possible. Another advantage arising from the change would be that the Lord Lieutenant would probably make a point of attending, which he could not now do in consequence of Goodwood Races being always on the last Wednesday in July.

The proposition was seconded by Mr. LEGGE, and carried unanimously.

Mr. Harris transferred his wool, 330 ewes and 107 hoggets to Mr. Legge, at 56s.—Mr. Tourle offered at 62s; refused.—Mr. Jas. Hodson sold at 56s.—Mr. Hurst (Eastbourne) offered at 1s 10d per lb; refused.—Mr. Fuller's (Tarring) refused at 58s.—Mr. Legge proposed 56s for Mr. Woodman's (Falmer) for his wool, (1230, out of which 450 tegs; refused.—Mr. Walter Woodham's sold at 57s (quarter hoggett).—Mr. Bine's (280 hoggets out of 1000) offered at 58s and refused.—Mr. T. Ellman offered at 60s; declined.—Mr. Botting at 56s (quarter hoggett); refused.—Mr. Saxby, (West-dean) offered at 58s; declined.—Mr. J. Saxby, (Northeast) sold at 56s.

Business continued to be transacted until a late hour, and a great many sales were effected at an average of about 56s with quarter hoggets; with a larger proportion of hoggets, from 57s to 58s.—About 23,000 fleeces were transferred to Mr. Legge alone.

## INVERNESS SHEEP AND WOOLFAIR.

(From the *Inverness Courier*.)

We had given in a previous number, a report of the proceedings at this fair but at the request of a correspondent, as well as from a conviction of its value, we are induced to repeat this more comprehensive account. Ed. M. L. E.

This important market, at which the staple products of the counties of Inverness, Ross, Suther-

land, Caithness, and Elgin are annually sold, to the amount of from 150,000l to 200,000l, was held here last week. Thursday and Friday were the appointed days, but it was Saturday before the principal lots changed owners, or any idea of the prices likely to prevail could be obtained. The effects of this market are felt by all classes of the community in this northern part of the kingdom, to say nothing of its influence in regulating prices in the south; and we have, therefore, great pleasure in stating that the market has been a good one both for sheep and wool. On Cheviot widders there has been an advance, over last year's prices, of from 15 to 20 per cent. Those flocks which last year sold for 26s 6d each, brought this year 30s; others rose from 22s to 26s. One fine lot of Cheviot widders sold for 30s each; another, 29s 6d; another 27s 6d. These were extensive lots; the best Cheviot stocks in Sutherlandshire went as high as 31s 6d the widders, and 19s the ewes. Ewes have rather declined in value, whether Cheviot or black-faced. This is supposed to be owing to the great fall which took place in this description of stock at the latter end of last year's markets in the south, and also to their being comparatively poor in condition. The loss of lambs by the backwardness and severity of the spring would, of course, have some effect in raising the value of the stocks of lambs on hand, and accordingly they sold here at 1s and 2s more than last year. In wool, the rise of price is fully equal to that on carcase. The best clips of Cheviot wool last year were disposed of at 20s 6d per stone; this year the same lots have sold at 25s per stone. Two extensive lots, amounting together to near four thousand stones, for which 20s 3d were received in 1835, sold at this market at 24s, and others in like proportion. The following is a note of the prices:

### SHEEP.

Cheviot widders .....	24s 0d to 31s 6d.
Do ewes .....	16s 0d to 19s 0d.
Do lambs .....	9s 0d to 14s 0d.
Black-faced widders ...	15s 0d to 21s 6d.
Do ewes .....	9s 0d to 12s 0d.
Do lambs .....	8s 6d to 11s 0d.

### WOOL. per stone of 24lb.

Laid Black-faced .....	10s 0d to 22s 0d.
Unlaid ditto .....	12s 6d to 14s 0d.
Unwashed Cross-bred ...	12s 6d to 14s 0d.
Washed ditto .....	14s 0d to 16s 0d.
Unwashed Cheviot .....	17s 0d to 18s 0d.
Washed ditto .....	21s 0d to 25s 0d.

More Cheviot wool was sold out and out at this market than was ever disposed of here upon one occasion. The purchases of sheep were also very extensive. Mr. Paterson of Sandside bought upwards of 3000, mostly widders. We may mention that the Rhudunan sheep, a fine black-faced stock, sold at 21s the widders, and the ewes, 12s.

The Sutherland contract for smearing materials was obtained by Mr. Anderson, Edinburgh. It consists of thirty or forty tons of butter, and about six hundred barrels of tar. We heard the price of butter stated at 52l per ton, an advance of fully a third. The kind of butter used for this purpose is that which has been held over for a year, and is of coarse quality. In consequence of the great demand last year in England, (another proof of the comfort and full employment of the manufacturing population,) little was left over, and on this account there is a scarcity.

The Inns were crowded beyond all former ex-

ample, and the public ordinaries, at the Caledonian and Royal Hotel, were fully attended. On Thursday, Mr. Brown of Linkwood, presided at the Caledonian Hotel; on Friday, Mr. Davidson of Cantray; and on Saturday, Mr. Pagan, from Liverpool. At the Royal Hotel, the chair was taken successively on these days by Major Gilchrist of Ospisdale, Sir Colin Mackenzie of Kilcoy, and Mr. Macdonald, banker, Fort William. Some practical subjects were discussed or glanced at, in the speeches and sentiments which circulated round the table after dinner, which we may briefly notice.

Sir Francis A. Mackenzie of Garloch, stated that he had written to the Secretary of the Highland Society wishing that a premium should be given to aid in the extirpation of foxes from the pastoral districts. A large premium would, he thought, lead to this desirable result, and if 300*l* were offered, the sum could easily be made up. He himself would not hesitate to give 50*l* if necessary. Mr. Paterson of Sandside expressed his doubts whether such a scheme would be successful; they had tried something of the same kind in Sutherland, and it was found that the more the premiums were increased the sheep decreased, instead of being better preserved. The noble family of Sutherland had spent thousands of pounds on this object, but in vain. He still thought that perseverance and a friendly co-operation among the tenants were all that was required to destroy the foxes; if they were as anxious to kill a fox on their neighbour's farm as on their own, they would succeed better than they did. Mr. Sellar, Morvich, and Mr. Reed, Kilcalmkill, dissented from Mr. Paterson as to the Sutherland Association, which they contended had been very useful in the destruction of foxes.

A hint was thrown out by Mr. Sellar, that it would be highly desirable if the Highland society would fix the time for holding their shows of live stock, in the different towns and cities, either a little before or a little after the time of harvest. He was prevented, he said, from attending the last Inverness show, as at the time it took place he had about a hundred women, besides, men working at his harvest, whom he could not leave without considerable inconvenience.

Mr. Brown of Linkwood alluded to a statement which had appeared in the Glasgow newspapers, purporting to be from a farmer in Invernessshire, who stated that he considered his farm, though a small one, to be worth 100*l* a year more since the introduction of steam navigation into this quarter. Mr. Brown condemned this statement as extravagant and ridiculous; there had not yet been time afforded to estimate the advantages of steam navigation in the conveyance of fat stock to the London market from the Moray Firth, and if there were time, it was absurd to talk of 100*l* a year being gained from such a cause on a small farm. Mr. Dudgeon, Arboll, Mr. Young of Burghead, Mr. Sutherland, Aldourie, and other gentlemen, also condemned the statement as extravagant, and calculated only to raise rents unaturally and unjustly. While on the subject of steam communication to the London market, Mr. Pagan took occasion to recommend Mr. Charles Burrell, London salesman, who was an active, respectable, and faithful agent for such as required his services in the disposal of their stock in Smithfield.

With respect to agricultural improvement in the North, Major Forbes Mackenzie of Fodderty stated that he was the first man in Ross-shire to cover a

field with lime, and his neighbours all said he was ruining his land! Mr. Paterson of Sandside alluded to an improvement in conveying sheep and stock which was talked of, namely, a steam-boat across the Firth at Burghead, which would save an immense deal of travelling. He hoped it would be soon carried into effect.

Mr. Mackinnon of Corry intimated, that he thought of changing entirely the stock on his estate in Skye, for the improved breeds of the south, which fattened better and were more profitable. Cantray and others doubted whether this would answer; they thought it would be much better to improve the system of rearing the native stock, which were inured to the climate, &c., than by forcing the cultivation of the short-horned breeds. Mr. Mackinnon added that he would continue the experiment, as he had no doubt of its success. (We would here remark that Mr. Traill of Ratter, and Mr. Horne of Stirkoke, have reared the Tees-water breed very successfully in Caithness; and other experiments of the same kind in the north have proved advantageous.)

A proposition regarding the mode of conducting the business of the market was discussed. We shall explain it more at length. Inverness sheep and wool market was first established in 1817. For several years the number of persons engaged in business was so limited that no one found any difficulty to discover in each branch of the business the whole persons connected with it. If, for instance, he was a seller of Cheviot wool, he could take his choice of one of the three staplers who were present; if a buyer, he soon discovered each of the twenty to thirty sellers who had come. In like manner, the three or four *Jobbers* who had attended, stood perfectly recognised by every individual who had sheep to sell, and the few sellers knew at once to what person it was of any importance to make application. Since then, however, the numbers and the sorts produced have been greatly multiplied. There are Cheviot, and cross, and black-faced varieties of wool and sheep. There are sellers of widders, of ewes, and of lambs, and so on of each variety, and their corresponding buyers. Besides the staplers, there is an assemblage of manufacturers, and of farmers from the various counties who come into market, each finding it nearly impossible to discover among the assembled crowd the dealers in the particular commodity they desire to purchase. To remedy this state of things, it occurred to several gentlemen that it would be of importance to induce the whole persons attending to transact business to assemble together on the morning of the first day of the market, with a clerk to be appointed, for the purpose of registering the address and description of business wished to be done by each. In this register, if the buyers of Cheviot wool were placed in one column, and the sellers in another, a glance at the paper would enable them to discover one another. If the names of the buyers of black-faced wool occupied the third column of the paper, and the sellers of it the fourth, the same result would follow; and so with the sellers of wintering for stock, and the buyers and sellers of cross wool, widders, ewes, lambs, smearing materials, &c. If these were registered, and the register made patent to all, business would be prodigiously facilitated. The gentlemen attending the market unanimously agreed to adopt this proposition, and appointed the following gentlemen a committee to carry it into effect at the next fair:—viz., Major Gilchrist, Mr. Mackenzie, banker, Mr. Johnston, Mr. Young,

Mr. Sellar, and Mr. Brown to be Convener. These gentlemen will, we trust, spare no trouble to do the thing effectually, as it promises to facilitate very materially the business of the market.

We shall not attempt to give a list of the farmers and gentlemen present on this occasion from all parts of the northern counties, but amongst those attending from a distance were the following:—

**WOOL BUYERS.**—Mr. Thomas Lockwood, Huddersfield; Mr. Walter Lockwood, ditto; Mr. Samuel Eastwood, ditto; Mr. Brookes, ditto; Mr. Ford, of the firm of Dockray and Co., ditto; Mr. Clark, Market Harbour, Leicestershire; Mr. A. Laing, of the firm of Dicksons and Laings Hawick; Mr. Gavin Hadden, of the firm of Hadden and Sons, Aberdeen; Mr. Wm. Archibald, from Alloa; Mr. Donald Maclaren, Callender, Perthshire; Mr. Charles Macdonald, of the Port Eglington Carpet Company, Glasgow; Mr. Coll. Turner, of Roseneath; Mr. A. Johnstone, from Elgin; Mr. Macdonald, Drumintorran; Mr. Smith, Fort William, &c.

**COMMISSION AGENTS.**—Mr. George Maxwell, of the firm of W. A. and G. Maxwell, Liverpool; Mr. W. R. Ronald, of the firm of Thomas Phillips, and Co., Liverpool; Mr. George Watson, of the firm of Watson and Macdonald, Liverpool; Mr. John M'Askill, Liverpool; Mr. W. Macleod, of the firm of Macleod, Houston, and Co., Liverpool; Mr. Gilbert Fairie, of the firm of Fairie and Rowland, Liverpool; Mr. Duncan Stewart, of the firm of Stewart, Bald, and Co., Liverpool; Mr. Boyd, of the firm of Hossack and Boyd, Liverpool; &c.

**CONTRACTORS FOR SMEARING MATERIALS.**—Mr. Adam Anderson, Edinburgh; Mr. Lamont, Greenock; &c.

**SHEEP BUYERS.**—Mr. Andrew Lamb, Liverpool; Mr. John Pagan, ditto; Mr. Alex. Robb, Stirling; Mr. Dickson, Penrith; Mr. Neilson, ditto; Mr. Moffat, Dumfries-shire; Mr. Hunter, ditto; Mr. Roan, ditto; Mr. Kennedy, ditto; Mr. Walker Johnston, Moffat; Mr. Gibbons, Carlisle; Mr. Watson, Keillor, Perthshire; Mr. Scott, Montrose; &c. &c.

**CIRENCESTER WOOL FAIR.**—For the last few days our streets have been crowded with waggons, carts, and horses with pack saddles, all laden with wool from the adjoining hills. About one hundred and fifty packs of wool has been weighed in the neighbourhood, and about the same quantity here, the price averaging from 1s 3d to 1s 6d per lb. Although stock and corn bring but inferior prices, yet we are happy to see that wool bears a remunerating value, and enables the farmer to take home some of that convenient thing called ready money. The purchasers were Messrs. Morgan, woolstaplers, Glasbury, through the medium of their agents, Mr. Wm. Hughes, of Brecon, and Mr. Richard Williams, of Aberdare, who have within the last month distributed no less a sum than six thousand pounds through the county in the purchase of wool alone.

**CHIPPENHAM WOOL MARKET.**—The success of our market has exceeded the most sanguine expectations of its supporters—all of whom now consider it established beyond doubt.—The attendance of buyers and sellers was greater than at our first Market. Sales were brisk, with an advance upon the prices obtained at the late markets and fairs. About 250 bags were pitched, the greater part of which was disposed of at the following prices:—Ewe and Wethers from 42s to 46s; mixed Flocks from 45s to 48s; Tegs from 50s to 52s per tod of 28lbs. Down fleeces were chiefly in request. After the Market, Mr. Neeld entertained a party of friends at the White Hart, among whom were

Mr. Salter, Mr. Geo. Bailey, Mr. Budd, Mr. Deere, Mr. Little, and several of the supporters of the market.

**WOOL.**—LONDON.—The public sales of wool, the produce of the colonics and other parts, having concluded, the following are the particulars of the averages realized during their progress. Between 5,000 and 6,000 bales were announced for public competition, of which 4,600 were Australian and Van Diemen's Land wools, a small portion from the Swan River and the Cape of Good Hope, and the remainder principally German, Spanish, and Peruvian fleeces. During the sales there was a full attendance of buyers from the manufacturing districts, and several agents to complete foreign orders present. The Australian wools are improved in fineness, but were generally of short staple. The Van Diemen's Land choice descriptions, on the other hand, were fit for combing, and realized proportionably high prices. The following are the accurate average prices obtained during the sales:—Australian: choice fleeces, 2s 6d to 3s 3d per lb.; good and ordinary, 2s to 2s 8d; and wools in the grease, from 1s 5d to 1s 9d. Van Diemen's Land: the finest fleeces, 2s 6d to 3s 4d; ordinary and good, from 2s to 2s 8d; and in the grease, from 1s 3d to 1s 6d. The finer qualities embraced all the best marks from from the colony. Eight bales of Swan River wool fetched from 2s to 2s 4d; and Cape of Good Hope from 2s to 2s 5d. On the average the quotations of colonial wools may be stated fully 2d to 3d per lb higher than those realized at the corresponding period of last year.

**ENCOURAGING SIGNS OF THE TIMES.**—There are forcibly apparent at the present period, a few striking and important facts, which, indicative as they are of the state of the empire, should not escape universal attention; nor will, we trust, the conviction fail to be entertained, that as the condition of the people is a correct index of the power and efficiency of government, the present administration is entitled to the gratitude of the country. From every part of the manufacturing and commercial districts, the accounts are highly gratifying. In every branch there is ample employment for all; and the rate of wages is increasing—circumstances, which must prove of great benefit to the agricultural portions of the community, arising from an increased consumption—to that important class which, employed in the cultivation of the land, has long suffered under a state of depression, but which assisted further by the operations of the poor law unions, is, we hope, rising to participate in the general benefit. Crime, too, is evidently upon the decrease. The Irish Judges congratulating the respective juries upon the fact of its diminution is most striking. Without alluding to the more southern provinces, the calendar for Yorkshire, considering the immense district which it embraces, is also small, and the offences are not of a deep and serious character. In the extremely populous district of Durham the calendar is very light. At Appleby there is not a single case. In short, the calendars throughout the whole of the circuit are extremely light. Here are abundant grounds for congratulation and for thankfulness. Nor is this all. The present gratifying state of prosperity is not based on a false and fictitious foundation. It is a tree whose roots are firmly fixed in the heart of the soil, and whose branches overspread the land. Amidst this gratifying state, the arts and sciences are extending their sphere of usefulness; and literature is presenting additional attractions and delights. Public improvements were never carried on, on a scale so magnificent as is the case at the present period; and to crown all there is every prospect of a bountiful harvest.—*Sunderland Herald.*

**PHOENIX PEA.**—A few days ago the wife of John Moody, of Whittington, near Chesterfield, obtained 332 peas from 80 full-grown pods, the produce of a single pea, which grew in a situation where it had been accidentally sown. The peas thus procured filled a pint measure.

## AGRICULTURAL REPORTS.

## SUFFOLK.

At this important season to the farmer, the weather is of the greatest importance, and as far as harvest has proceeded, it has hitherto been of the most propitious kind for the ingathering of the fruits of the earth; for which we feel thankful to Him who has declared that summer and winter, seed-time and harvest, should not fail, and pray for a continuance thereof; whatever may be the desire of a few interested individuals to wish for a wet harvest, we certainly think that both for man and beast, that what is termed a fine harvest, must be most acceptable, and taking the whole country throughout, those individuals must be of very sordid dispositions indeed, that, because from local circumstances or situations, they have secured the greater bulk of this year's produce, or because they may be holders of a stock of old Wheat, to wish their neighbours (if they can be so called) who occupy more backward spots of the earth, should not be blessed with the like favourable weather, the least we can say of them, they are not patriots. The Wheats, as we anticipated in our last report, are not equal to what they appeared to a passer-by, and the bulk is little more than half, compared to the last two years; we know of large breadths in well cultivated districts, which produced little more than one good load per acre; there is, however, in one part of this county, where from the great depth and fertility of its soil, (we allude to what are called the woodlands, but which is now as free from timbers as a desert) the Wheats are very heavy, but take this county as a whole, we must again assert, the Wheat crop is not of average bulk, is effected by smut, and, we fear, more or less injured by mildew. We were not surprised to read in the market letters in your last publication, that the new Wheats were of inferior quality compared with the old. The Barleys are a fair average bulk, and if well harvested will be a good sample, and we anticipate, as the prices of sugar and molasses are steadily advancing, that distillers will have occasion for Barley for the purposes of distilling, therefore if secondary qualities are taken off for that purpose we may safely calculate on remunerating prices. Oats, of which there are not but a small breadth grown in this county, are a tolerable crop. Peas are somewhat bulky in the straw, and fairly loaded with pods. Beans are short, but the prospect for a crop is about an average. Clovers are very short; we cannot yet form any opinion as to whether there will be a crop of seed. Turnips are generally a good plant, having been more or less attacked by black Jack; they appear quite stunted. Mangel wurzel is promising to be a good heavy crop, and of which there is a larger breadth cultivated this year than for the last several years. The wheat harvest is nearly completed, and in many parts of this county the barley harvest is proceeding rapidly; with a continuance of weather, such as we have hitherto experienced, to the end of the month, nearly all kinds of produce will be secured in this county.—Aug. 20.

## NORTH DEVON.

The drought from the commencement to the middle of last month checked the growing of the meadow grass, that it has not produced so much hay as was anticipated, and complaints are made of deficiency in the portion which still remains to be cut; it is however a pleasure to find, that the greater part already saved has been put together in the best condition, and that the superior quality will compensate in some measure for the deficiency in quantity. The rain, which commenced on the 15th ult., has so much improved the after-grasses, that a good share of feed may be expected from them. There was a continuance of wet with little intermission until the 2nd inst., frequently attended with cold, and heavy gales of wind, which in some situations laid the corn, and in others twisted the straw to a considerable degree, yet it does not appear that any serious injury has been sustained; the wheat ears are short, though seldom

better filled, and was thought, until a few days since, to be without fault; but it has been discovered, that in many situations there is an unusual quantity of smut: the yielding of the wheat is expected to be good, yet from the general thinness of the straw, it will be below an average crop; there is a considerable quantity of old wheat on hand, which from the decrease of tillage last season will be found useful, and probably sufficient to make good the deficiency of the present year. Barley and oats, sown in seasonable time on good land, is thin in the straw, yet since the late rain they have filled well in the ear, and from present appearances will be of good quality, and produce a full average yielding, but those grains on coarse lands and cold clay soils, will not much exceed half an average crop; the deficiency is thought to be principally owing to the difficulty of getting the seed into the land at the very late period when it was sown; none of this kind of barley will be of less than two or three different growths, we may therefore calculate on good malting samples being scarce; the late-sown oats are also of various growths, short and thin in the straw, and altogether with an appearance not likely to prove very profitable to the farmer; though the crops have suffered so much in this district, from the ungenial state of the weather in the spring, yet they are spoken of more favorably in the southern division, and said to be good in the eastern part of the county. Prior to the 15th ult. the turnips were suffering by flies, and in a few situations the black caterpillars were making great ravages; the rain since that period has cleared them of those enemies, and as the sowings were repeated in a favorable time, there is now a promising appearance of a general good crop. The failure with the potatoes is to a greater extent than has been noticed in any preceding year; various are the conjectures as to the cause, some attribute it to small worms (not noticed before) which are found in considerable numbers in the decayed parts; these worms are about three quarters of an inch long, with black heads, and white bodies full of legs; as we cannot find that any such complaints exist where small potatoes have been planted whole, we are induced to think that it chiefly proceeds in cutting the pieces too small, by which means (as the ground has been so extremely dry, the last three or four seasons, at the planting time) the juices of the sets have been entirely absorbed, and thereby rendered unfit for vegetation. The supply of fat bullocks in our late fairs and markets have been rather short, yet the prices have declined, the best are now from 9s 6d to 10s per score; fat sheep and lambs are offering freely at 5d per lb; calves and pigs realize about the same prices as in the last month, but are not in much request; wool meets a ready sale at prices fully up to, or beyond, the farmer's expectations. A few fields of wheat and oats were cut in the neighbourhood of Barnstaple and Bideford between the 2nd and 6th of this month, and a considerable quantity of wheat was cut last week on the best lands, the chief part of which has been carried, some prematurely, according to the opinion of the best judges, who think injury will be done, as the straw is found to be much greener than the ears; the cutting of wheat will be general on all the inferior soils by the latter part of this week; there has been a few samples of new oats in our markets, which were sown in February, the quality of which was good; no new wheat has been yet offered, nor have we heard of any barley being cut; and it will be from two to three weeks before much barley or oats are cut.—Aug. 15.

## WILTSHIRE.

Reaping having commenced, we can speak with some confidence as to the present state of the crop. Monday the 8th was the more general day for beginning on the hill district of the county. A deficiency in the quantity of straw is the prevailing character, and though this observation will apply both to hill and dale, it more particularly applies to high and poor land. For some years past the difference between the wheat crop on good and bad soil has been trifling. Frequently the hill farm, from a milder course of cropping and better general management, has produced as many bushels of wheat to the acre as the stronger wheat land. But this year forms an exception. The wheat on the good land is in the present year generally a better crop than on the poorer soils. We never remember so much red weed (poppy) on the sands, or so much madern (wild chamomile) in situations which suit this troublesome plant. We do not expect the crop will turn out so much by two or three sacks per acre as it did last year. Here it may be well to observe that the crop of the last year was an extraordinary one in this county, and that the county reports from other parts of the kingdom did not describe the wheat crop to be so large as ours. Such a very small proportion is lodged (laid), that we shall not much exceed the truth if we say none. The colour of the straw is bright, even the very thin does not indicate the least tendency to blight; so that the berry and yield from the straw will probably be good, and in a degree make up for the deficiency of bulk. Still we are of opinion that the crop will, on the whole, turn out to be the worst we have had since the year 1829. The number of old ricks in the yards is considerable, and if our predictions as to the present crops are correct, they will be wanted before another harvest. Barley is somewhat below an average. Beans short, but well podded, and free from insects. The turnip crop is much more promising than last year at this time. The black maggot which caused so much desolation last season, is for the present gone, after having made his appearance much earlier than last year, and cleared many an acre of healthy plants. The history and habits of this grub are as yet but little known.—Aug. 11.

## NORTH RIDING OF YORKSHIRE.

Aug. 11th a broiling day, whilst last Thursday was as cold as Christmas; therefore, of course, the weather is very changeable; but if it continues such days as this, we shall be over head and ears in harvest next week. With respect to the crops, we shall, as usual (at this time of the year), give an account of them to the best of our judgment, as we, like many poor farmers, have no old wheat left, and very little money in our pockets. First, of wheat:—it is considered a good crop; indeed, a better crop than we have had for some time, but the high winds some time back have done much damage. There are scores of acres sown with oats that other years would have been sown with wheat. Last wheat seed time we had better than 40 acres of seeds and clover, which we generally sow with wheat; but the weather was so wet, we left 20 to sow with oats, and we find this is the case with many; of course, there is a greater breadth sown. The general appearance of the crop is a full average. Barley is likely to be a better crop than we once expected it, but the sample cannot be good, for we never saw it come into ear so irregularly as it has done this year. Beans were likely to be short, but they have made good progress since the late rains. We are afraid the high winds have injured both them and barley, as well as wheat. We

have begun harvest in some forward parts, but it is not general; next week, or the week after, it will be general. We were very much alarmed about our turnips a short time back; indeed, some fields were completely destroyed by the black caterpillar; but from what we have heard lately, they are not so bad as was anticipated. We went in company with a friend to look at a field near Fountains Abbey, which we heard was nearly destroyed by them; no sooner did we get into the fields than up got, we should think, 200 rooks. We were sorry to disturb them, as we were sure they would be after the caterpillars, and when we came to examine where the rooks rose from (which was much eaten) there was not a caterpillar to see (it appears the rooks had not discovered them before they had done so much mischief), but near the road where the rooks durst not go they were in abundance; therefore, rooks are a good thing. By-the-by, there was not a single turnip pulled up by them, as is the case when they search for grub or wire worm. We do not hear of any preventive for their destruction, except ducks turned on the fields. There is one thing we should do if ours were so affected, and we would recommend any one to try the same; and that is powdered hellebore root, dredged on the plant; we had some caterpillars on a gooseberry tree, and we dredged a small quantity on it, and next day there was not one on the tree. Why not do the same with turnips? it would be too expensive for those sown broad-cast, but for drilled ones we think it would be a good thing, as it might be drilled on the rows by a common Scotch drill, but the coulter should be taken off, leaving the spout. We would strongly recommend a trial of this. Our markets are rather on the decline; labourers very scarce, and nearly master of us.

## DURHAM.

The weather throughout July was the most unpropitious month for the growing crops that we can remember for many years, being a series of cold, windy, thunder storms, heavy rains alternately, and the crops of corn are much beaten down and injured; the thin wheat has been much broken down and loosened at the root by the very stormy winds, and the subsequent heavy rains have beaten down the more weighty crops; the last ten days the weather has become very hot and sunny, and frosty nights appear to be producing fungus or rust upon all the heavier crops, some of which are very black, and we do not see any that has escaped the infection more or less, though we never anticipated anything like an average crop this season, yet since May it had improved more than could have been expected, but it is now reduced to a certainty that the wheat crop must be a very failing one, the great bulk of the wheat land being of a sterile, poor description, and generally very ill cultivated, will not produce this year more than one-half the average of the last three years, and that of very inferior quality; the better descriptions of land, of which we anticipated a fair average crop, will now be rendered very deficient from the effect of fungus, which appears more and more evident every day. The oat crops will be partially good; the tempestuous winds have injured them, as also Barley very much, and in many instances a premature ripening will be the effect, and consequently a small bad sample. Turnips have suffered great ravages by a black caterpillar, and many have lost their crop entirely; some who have had recourse to the expedient of employing a number of persons to kill them, though an expensive mode, have had the satisfaction of saving their crop, but others have generally lost their crop.—Aug 10.

## AGRICULTURAL INTELLIGENCE, FAIRS, &amp;c.

**THETFORD FAIR.**—At this fair from 12,000 to 14,000 sheep and lambs were penned; for lambs the sale was slow, at from 14s to 21s 6d per head; shearing ewes, and crones sold freely, the former from 30s to 36s; crones, from 14s to 21s. Some very superior Leicester lamb tups were shown, belonging to Mr. Jas. Okey, jun., of Cambridge, which were sold by auction, from 3/ 10s to 5/ per head.

**ASHBROSE FAIR.**—There was a large quantity of sheep penned, which went off very briskly, with little variation in price from previous fairs. Of beasts there was a large show; fat and incalved cows were much in demand at good prices; but store beasts were not quite so well sold. Of horses there was a very large supply, many of which were good and useful animals, and a considerable extent of business was done. Upon the whole the fair was much better than we could expect, considering the great deficiency in keep.

**MELROSE FAIR.**—This great annual fair, for lambs, was computed at fully 60,000, and as near as possible about the same number as last year. Best lambs, top price, 19s 6d. Half-bred, top price, 17s, current, 12s to 15s. Some lots of the small kind at 9s. Cheviot lambs, top price, 10s, current, 7s to 9s. The prices obtained for the half-bred and Cheviot lambs from 6d to 1s a-head less than last year, but prices upon the average much better than anticipated, and is reported to have been an excellent market, and nothing of any consequence left unsold.

**FALKIRK TRYST.**—Falkirk August or first Tryst was scarcely so numerously attended with black cattle as we have formerly seen. The ground allocated to this market was only one-half of the market stance occupied by the September and October markets, and was not full, the numbers computed being from 6,000 to 7,000 head, there being no sheep shown at this market. It was soon observed that fat cattle were in quick demand, and sold readily off at from 6s 6d to 7s 9d per Dutch stone, sinking offals. The supply of good fat beasts was by no means so large as usual at this season, the uncommon quantity of rain that has fallen having hurt the pasture, and kept back the cattle. Half-fat cattle, for clover fottage, were also sought after and sold at about the same prices as at this market last year. But for lean stock it was a very dull market, they having sold at prices fully 8/ per cent. below those of last year. Some lean Norland two-year-olds went off at 3/ 3/ 10s, and 4/ a-head. Scarcely any West Highlanders to be seen. But from what we could observe on Wednesday evening the cattle were well sold off. Few south-country dealers have appeared at this market. A very considerable show of horses was brought to market, both for draught and saddle, and several droves of unshod Highland ponies. Of the horses, few were of the high-priced kinds, varying from 12/ to 25/, and at all inferior prices. A good choice of saddle ponies was to be had, but a dulness of sale was observable, though by the end of Wednesday a considerable business had been done.

**MINNYHIVE LAMB FAIR.**—The show of lambs was very considerable, and in numbers greater than that of last year. Although there were a great many dealers present, sales were not considered very brisk, from the reluctance of the holders to forego the chance of Lockerbie market on the ensuing Tuesday, except for a tempting price. Another circumstance which may account for the limited sales, was that a considerable part of the stock was held by dealers by profession, who probably had purchased more with an ultimate view to the Lockerbie than the Minnyhive market. Still the quantity of business done was very considerable, and fully two-thirds of the stock produced changed owners. The top price was at the rate of a guinea each, and the general run of the market was considered at a shilling per head less than last year's prices. There were about 9,000 lambs shown, principally half-bred and Cheviots, of excellent quality. The prices at this fair cannot be said to be regulating,

because it is but in infancy as a market. The attendance, however, was great, and had distant dealers been aware of the quantity and quality of stock exhibited, it is certain that many more would have been present. The fair is of great importance to the district, and it is evidently the duty of our leading gentlemen to encourage it by every means in their power. Not the least important feature of the day, was the presence of a regular Banking Establishment, ready to accommodate the public by facilitating money transactions. This was indeed an accommodation, and, though unusual in this district, such have been found to be attended by many advantages at the great trysts and markets in Scotland and England.—*Dumfries Times.*

**LANARK ST. JAMES'S FAIR.**—The number of lambs on the moor was estimated at about 20,000. Throughout Tuesday the demand was exceedingly flat; prices fell to the average of 7/ 10s a score. Some superior lots brought 9/. An attempt was made to reduce the score from 21 to 20, but this was so stoutly resisted by the north country buyers, that the old clad-score system had to be continued. Owing to the coldness of the spring months, the lambs were generally not in good condition. On the second day buyers remained backward till mid-day, when a rapid transfer of stock took place, at a further reduction of ten shillings a score. About seven thousand lambs left the market unsold. On Wednesday the market sustained its long established character for a fine display of young horses. The number shown was unusually great, and they were mostly of a superior quality. One year old colts brought from 8/ to 15/; two year-olds from 15/ to 26/. Good horses of four years, from 25/ to 35/; lighter from 30/ downwards. A great number remained unsold.

**LOCKERBIE LAMB FAIR.**—The numbers shown were on the whole rather under an average, not exceeding, it was supposed, 35,000. The half-breds were more numerous than in any previous year, constituting, perhaps, little short of the half of the market. There were also more black-faced than usual, many having come from Lanark. The chief deficiency was in the Cheviot, owing principally to the loss of lambs in the Spring. From the previous markets of Lanark and Langholm, a dull fair was anticipated, but it turned out otherwise. The demand was very extensive and general. In a few hours all the principal lambs were disposed of, and at night only a small portion remained for the market of next day. The half-breds were of good quality, and the yearly improvement in the breed and condition was very observable; one or two of the best large lots gave about 20s., a number more from 17s to 18s; few of the drawn lambs of this sort came below 15s. A few lots of first-rate Cheviot wedder lambs were from 12s to 13s, but 10s to 11s was the general price. Good second Cheviot ewe lambs were generally sold from 9s to 11s. Black-faced were readily sold at prices beyond Lanark. The purchasers were from many districts of the kingdom, chiefly from the north of England and Galloway; and several considerable lots of black-faced, Cheviot, and half-bred, were bought for feeding in Forfarshire. Most of the Yorkshire wool staplers, who deal in the county, were at this fair, and left few parcels unsold in the hands of the farmers. The prices have been improving, and 23s was readily obtained for laid Cheviot per 24 lbs. The attendance of farmers from almost every district of the South of Scotland, and North of England, was greater than usual; and on the whole, the result of this important fair must have been every way satisfactory to the sheep farmers, and added another to the late prosperous years which they have experienced.

**PAISLEY ST. JAMES DAY FAIR.**—In the cattle market the supply of horses was tolerable, but there was little demand for them. The prices of good two year-old colts ran from 20/ to 25/; for one very fine pair 30/ each was asked. Draught horses ran from twenty to forty pounds. The supply of ponies was more limited than usual, the prices of those of

small size ran from 6*l* to 18*l*. There was a larger supply of black cattle for marts and winterers than usual, and very little demand for them, the prices ran from 3*l* to 4*l* 10*s*. At the last quoted price, cattle that would feed to from 25 to 30 stone, could be readily purchased. The supply of milch cows was rather limited, prices ran from 10*l* to 12*l* for the best description in the market.

At NORTHALLERTON FAIR last week a respectable gentleman of that place sold five young colts, (full blood), the price averaged upwards of 100 guineas each, the same person also sold during the said fair, 25 fat bullocks, and 12 equally as well fed heifers, to a most respectable butcher resident at Bedale.

STIRLING LAMMAS FAIR.—At our fair the price of hay for the season was arranged; but it would appear that little had been done in that line. 80*s* a ton had been obtained for coarse hay of the first quality, but it is probable that dryfield, or what may have suffered from the weather, will be at a lower price.

At MARK FAIR the supply of beef and Mutton was very abundant; prime beef, of which there was a scarcity, fetched from 9*s* to 10*s* per score; ewe sheep, 5*d* per lb., wethers, 5½*d* to 6*d* per lb., Lamb, 6½*d* per lb.

EAST RETFORD, Aug. 18.—With respect to the weight of the crops in this neighbourhood, one general remark will apply to nearly the whole of the plantations, viz. that it will be decidedly below an average one, though perhaps the quality will be as good as ever was known, as neither filth nor disease has ever visited them during the whole season.

FARNHAM HOPS.—The cleanliness and luxuriant growth of the bine at this place, led the growers to expect, six weeks ago, that there would have been a most surpassing crop; this expectation is now gone past, and they can calculate within a few hundreds what their growth will be. The best grounds have plenty of bine from tip to toe, but the lower shoots are many of them abortive, so much so, that the fruitful shoots can scarcely be reached with the hand, yet with a twenty feet pole, much remains well clothed with promising hops, and in those never failing grounds from 15 to 20 cwt. per acre may be calculated on. The grounds on the outskirts of the parish, have, this year, shown, to the astonishment of all, the effects of good management and continued culture of the surface, many of these spots are well feathered to the ground, and not a little of this successful growth, may be attributed to Mr. Lance's introduction of the new manures of hair and carbon. The practice of putting stable dung on the crown of the hill, is very questionable as to its service; seeing that in the middle of the rows, there is to be found, the feeding fibres, the innumerable rootlets, with the spongy mouths on the sides and end of them, here then the food should be given; of manure and culture, these fibres will again grow across the alleys in a few days, if broken off by the horse hoe. Of the surrounding villages and hamlets, we have much to say, had we space; here, we find culture overcoming the sterility of soil, mineral manures, and botanical knowledge obtaining crops, where barrenness otherwise, would have occasion chagrin; in one place we find the introduction of marls as a dressing, and in another the male plant of hops judiciously cultivated, to give fulness and vigour to the female strombile. So much is this practice of the surrounding hop growers, that they get their hops forwarder than the town, and the bine is made to sweep the ground, being feathered and well clothed with hops to the very hill; so fast are they getting their hops to assimilate to the more favoured grounds of the town, that Sir Thomas Millar of Froyle obtains nearly every year, as much per cwt for his hops, as the Farnham ground obtains at Weyhill fair; therefore we may conclude, as Hudibrass says, "The value of a thing must be what it will bring"—indeed the successful culture of the surrounding spots of Hale, Froyle, Binstead and Frensham is only to be exceeded by the hospitable manner and good old English reception there to be met with by an enquiring friend. Of Alton, where there are nearly 200 acres of hops, we hear but a sorry ac-

count, our perambulations not extending so far, we can give no information from ocular observation.

FARNHAM, Aug. 20.

L.  
A TUP WORTH HAVING.—A friend we conversed with the other day mentioned the following remarkable circumstance:—At shearing time, in the end of May last, the fleece of a bred tup, the property of John Bell, Esq., of Torbeckhill, parish of Middlebie, appeared so bulky that it was deemed worth while to weigh it—result, 20 lbs some odd ounces. So large a woolly one year's growth is, we believe, totally unprecedented in this quarter, and as white-washed, un-smear'd wool, is worth at least 1*s* 6*d* per lb, such as criticise the wonders of Dumfriesshire will oblige us by saying whether they ever before heard of a single member of a Scottish hirsell whose fleece would be cheap at thirty shillings sterling. The present, as we have more than once said, are palmy times for the hill farmer, whatever may be the fate of his neighbour in the valleys.—*Dumfries Courier*.

BABRAHAM TUP SHEW.—Mr. Jonas Webb's tenth annual tup show of Southdown Tups, took place on Friday, July 22, on his farm at Babraham. The attendance was exceedingly numerous, there being many of the principal agriculturists and flock-masters from the neighbouring counties. The letting commenced about two o'clock, the animals (one hundred in number) being of the very first-rate description—indeed we heard several of the first judges state that they did not believe that a similar number of such "magnificent creatures," being the property of one individual, could be witnessed in any part of the kingdom. A spirited competition took place for several of the lots, nearly the whole of them being let for the season,—one or two only were purchased. There were ten sheep, the stock of one tup, which let at sums amounting to 226*l* 16*s*. Also three sheep, used by Mr. Webb as shearlings last season, let for 95*l* 11*s*. Among the hirers were, the Dukes of Bedford and Norfolk, Earl of Hardwicke, Lord Braybrooke, Mr. Adeane, Mr. Coke, Mr. Pym, Mr. Hammond, Mr. Newton, Colonel Rushbrooke, &c.—At half-past four, about 150 gentlemen sat down to a very handsome and abundant repast, given in a commodious building erected for the purpose in a close near Mr. Webb's house, Mr. Elliot Smith, auctioneer, being in the chair, supported by Mr. Adeane, Mr. Pym, the Rev. G. L. Jenyns, Mr. W. P. Hammond, Capt. Gambier, Mr. Norris, Mr. Geo. Jenyns, &c. Mr. Pym bought Mr. Adeane's ewe wool, at 45*s*, and his hogget, at 56*s*; and Mr. Webb's, at 45*s* and 56*s*; Mr. Baldry purchased Mr. Norris's, (which had been kept entirely on pasture) at 57*s*. Several other sales were effected.

A field pea of a new kind has been brought to us by Mr. Gillett, of Halvergate, which from its great cast and superior sweetness and size, is worthy the attention of agriculturists. Five years back Mr. Gillett discovered it in a field of his own among some common pea. He has since cultivated for an increase, and now has forty acres. A field of five acres and a half produced last year 76 coombs and 3 bushels. A sample both of the last and present crop is laying in our office, and may be inspected by any gentlemen who think the subject worthy their attention. The price is 30*s* per coomb.—*Norwich Mercury*.

SINGULAR BEE-HIVE.—The workmen at present employed in erecting a new wall to enclose the church-yard at "Allowa's auld haunted biggin," made a curious discovery last week in the course of their operations in digging for a foundation. It was found necessary to encroach a little on the church-yard for this purpose, by which a variety of the wrecks of frail humanity were raised from the spot where they had been originally deposited many years previously, and among other fragments a skull was exposed to view. On examining it, the men were astonished to find its interior occupied by a colony of humble bees called millers, by schoolboys, and on a closer inspection, it was discovered that the little busy creatures had "improved each shining hour," as their bony abode was well stored with wax, honey, and young bees.—*Agr Observer*.



**GENERAL AGRICULTURAL REPORT FOR AUGUST.**

There was, for some days subsequently to our last month's report going to press, much heart-burning, amongst farmers, and not a few of the best of their landlords, against both the Parliamentary Agricultural Committees, and the theoretical, we could almost say imbecile, Central Agricultural Association, which last, had fallen into great disrepute. Since, however, the harvest has been in pretty general progress, the political troubles of the former seem to have lulled into halcyon calm. They possibly reconciling themselves, by considering that providence, in giving them a bounteous abundant harvest, will be far more beneficial to them than any legislative enactment or interference, and thence make its gracious bounty the sheet anchor of their hopes. It appears, too, from the intelligence we have received from all quarters, that, notwithstanding the lamentable Wiltshire disaster we noticed in our last month's report, and there having been several instances of considerable breadths of wheat, barley, and oats beaten down and damaged by the hail and thunder storms of the present month, there will be a general good, if not what might be called an abundant, crop, should the latter part of the corn harvest meet with no more atmospheric disasters, or other obstructions than the first has hitherto met with. Indeed, we, who are rapidly approaching the vale of years, do not recollect a harvest, in this country, wholly free from disastrous atmospheric visitations. Most of our English and Scotch, as well as some Irish, farmers, seem to be tolerably well satisfied, with the state and condition of their crops; hence, nearly all the calamitous rumours of the month, appear to have been contrived as price spurs, by speculators in grain. As relates to Scotland, both the Dumfries, and Perth Couriers, and Edinburgh Advertiser, which have not been unfrequently giving unfavourable accounts of the state of the general corn crop, seem now to admit, that the harvest in Scotland will be better than was expected, the former having recently, with great poetic sublimity, asserted that "The present tract of beautiful weather, which has already changed the face of nature, set in on the 5th inst. ; and, although frosts appeared early in the mornings of Friday and Sunday, not a drop—we suppose of rain, for we are not acquainted with *frost drops*—has fallen since ;" subsequently, gravely and astronomically asserting that—"In the tables ascribed to Herschel, Thursday, the 4th is the transition point assigned from foul to fair, and there seems to be a strong tendency in electrical matters to run in sets, our hope is there will be little broken weather now till the end of harvest!" The Perth Courier asserting—"The long continued rains, which terminated on *this day week*, have been succeeded by the finest weather. Wheat is ripening fast, but cutting is not expected to commence until the end of the month." The Edinburgh Advertiser asserting—"The weather, since *Thursday last*, has been warm and dry, and every way favourable for ripening the crops, which, we are happy to learn, have not been materially injured by the late heavy rains." In our southern, eastern, western, midland, and even as far north as the longitudinal line that passes along the southern borders of Yorkshire, the corn harvest is expected to reach a general conclusion, should the weather continue favourable to it, either before or speedily after the commencement of the ensuing month; by which time, the hop harvest under the same auspicious favour, it is hoped will have become pretty general, upon an abundant growth of fine coloured, full buried, hops.

As to tillage, in the present bustling state of the corn harvest, this is quite out of the question, with the exception of the teams being either employed in trifallowing, or carrying out manure, for the approaching wheat seeding, at such times that the carrying of corn is retarded by rain. "Now," says the author of a homely, but useful book, on husbandry, published in 1675, speaking of August, "this month returns the countryman the amount of his year's expenses, and encourages him to another year's adventure. If it prove dry, warm, and free from high winds, it rejoices his heart, increases his gains, and abates a great part of his expenditure."

Live farm stock, generally speaking, appears to have been, during the whole of the month, healthy, and the fattening part of the depastured sheep and beasts as thriving in the absence of parching sunshine, the stinging fly, &c., and, from having within their reach plenty of sweet water, as thriving rapidly in their pastures, and the ewe flocks, recently weaned lambs, and store tegs, subsisting on the sheep downs and other short grass lands, also as lusty and doing well: yet some few farmers and graziers were, previously to the present month's rains, complaining of a deficiency of grass.

As relates to store stock, including milch cows, this in some of our provincial fairs appears to have experienced a brisk sale, at advanced, in others a dull one, at somewhat depressed prices; but in our corn, fat cattle, and hop markets, sales have been very languid, at somewhat drooping; in those for the sale of hay and straw, at barely, of wool, horses, poultry, and dairy produce at fully, our last month's, quotations.

Notwithstanding, however, the quietude of agricultural politics during the greater part of the month, that part of his Majesty's ill-advised Speech, with which he addressed the House of Commons, in adjourning Parliament, on the 20th, which asserted—"I have learned, that you have, with *great labour*, brought to maturity enactments upon the difficult subject of tithes in England and Wales, which will, I trust, prove, in their operation, equitable to all the interests concerned, and generally beneficial in their results," caused much severe animadversion and ridicule in Smithfield, on Monday; many of the farmers and graziers, who attended that market, asking, or rather exclaiming, a precious boon this! The old story over again.—Great labour, indeed! As to the labours of both Houses, in the last Session, these they seemed to think were, for the most part, composed of frivolous and vexatious debate, and that a more quiet legislature was, for the most part, very desirable.

The following is our retrospect of supplies and prices of fat stock, exhibited in Smithfield and Islington Cattle Markets, since the publication of our last month's report.

**SUPPLIES.**

		SMITHFIELD.			
		Beasts.	Sheep & Lambs.	Calves.	Pigs.
July	29. . .	586	10400	340	320
August	1. . .	2875	28500	340	350
—	5. . .	356	5550	310	350
—	8. . .	2956	27180	245	325
—	12. . .	388	8890	240	220
—	15. . .	3165	28400	280	350
—	19. . .	525	8740	280	335
—	22. . .	2935	23650	325	330
Total	..	13786	143310	2330	2560
Supply of preceding month.	..	15541	158750	3123	4374

ISLINGTON.

	Beasts.	Sheep & Lambs.	Calves.	Pigs.
July 29.	67	734	—	—
Aug. 1.	339	3461	14	—
— 5.	83	733	11	—
— 8.	369	3,201	13	—
— 12.	90	662	2	—
— 15.	335	3,420	16	—
— 19.	83	701	—	—
— 22.	330	2,813	9	10
Total . . . . .	1,696	15,725	65	10
Supply of } preceding } month. }	2,014	15,497	79	6

It will be seen, by the above statements of supplies, that those of Smithfield have comprised, this month, 1,755 beasts, 15,440 sheep and lambs, 1,093 calves, and 1,814 pigs less than those of that which immediately preceded it; those of Islington have embraced 682 beasts, and 14 calves less, 318 sheep and lambs, and 4 pigs more than those of last month.

About 5,325 of the beasts, comprising the month's supplies of the above markets, came from our northern grazing districts, viz. Lincolnshire, Leicestershire, Northamptonshire, &c., up the St. Alban's road; about 4,855 up the other northern roads; about 1,726 from the western and midland districts; about 1,260 from Norfolk, Suffolk, Essex, and Cambridgeshire: about 420 from Scotland; about 140 from Sussex, Surrey, and Kent: and most of the remainder, from the marshmen, cowkeepers, stall-feeders, &c., in the vicinity of London.

PRICES.—SMITHFIELD.

	July 29.		Aug. 22.	
	s. d.	s. d.	s. d.	s. d.
Inferior Beef . . . . .	2 6	2 10	2 2	2 6
Middling, do. . . . .	3 0	3 4	2 8	3 2
Prime, do. . . . .	3 6	4 4	3 6	4 4
Inferior Mutton . . . . .	2 8	3 0	2 6	2 10
Middling, do. . . . .	3 0	3 4	3 0	3 6
Prime, ditto, . . . . .	4 0	4 6	3 10	4 8
Lamb . . . . .	3 10	4 6	4 0	5 2
Veal . . . . .	4 0	4 10	3 10	4 8
Pork . . . . .	3 6	4 4	3 8	4 8

It will be seen, by the above comparison, that but little alteration has taken place, in the course of the month, in the prices of beef and mutton: whilst those of lamb have advanced from 2d to 8d, of pork 2d to 4d: those of veal declined 2d per 8lb.

A comparison of supplies, and prices of fat stock, exhibited for sale, in Smithfield Cattle market, on Monday, August 24, 1835, and Monday, August 22, 1836—

At per 8lbs, sinking the offal.

	Aug. 24, 1835.		Aug. 22, 1836.	
	s. d.	s. d.	s. d.	s. d.
Coarse and inferior beasts . . . . .	2 0	2 2	2 0	2 6
Second quality do. . . . .	2 6	3 2	2 8	3 2
Prime large oxen . . . . .	3 2	3 6	3 4	3 8
Prime Scots, &c. . . . .	3 6	3 10	4 0	4 4
Coarse and inferior sheep . . . . .	2 2	2 4	2 2	2 10
Second quality do. . . . .	2 6	2 10	3 0	3 4
Prime coarse-wooled sheep . . . . .	3 2	3 6	3 8	4 0
Prime South Downs do . . . . .	3 8	4 0	4 4	4 8
Lambs . . . . .	4 0	5 0	4 0	5 2
Large coarse calves . . . . .	3 2	4 0	3 10	4 2
Prime small do. . . . .	4 4	4 8	4 4	4 8
Large hogs . . . . .	3 0	3 4	3 8	4 0
Neat small porkers . . . . .	3 6	3 10	4 4	4 8

SUPPLIES.

	Aug. 24, 1835.	Aug. 22, 1836.
Beasts . . . . .	2,832	2,935
Sheep and lambs . . . . .	28,610	23,650
Calves . . . . .	190	325
Pigs . . . . .	370	330

From the above account, it appears that most kinds of stock were somewhat dearer, on Monday, August 22nd, 1836, than on Monday, August 24th, 1835; whilst the supply of the former day embraced 103 beasts, and 135 calves more, 4,960 sheep and lambs, and 40 pigs less, than that of the latter.

A full moiety of this month's supply of beasts have been, both in Smithfield and Islington markets, comprised of short horns; about a fourth, not far from equal numbers of Herefords, Devons, and Welsh runts; and the remainder, of Scots and Norfolk home-breds; with some, but not a great number, of Sussex and Irish beasts, Staffordshire steers, heifers, &c., with the before-mentioned town's-end cows.—As relates to sheep and lambs, the former of these have been, as nearly as could possibly be ascertained, in about equal numbers of old and new Leicesters, South Downs, Kents, and Kentish half-breds; with, as relates to the latter, a considerable number of the white-faced west country breeds, and horned Dorsets, and sundry casual or incidental breeds.—From Scotland, the numbers of sheep and beasts have been comparatively few,—the former having amounted to 1,650; the quantity of slaughtered meat from that part of the kingdom having been, in the course of the month, very limited.

The quality of the stock, in both markets has been, throughout the month, in the whole, tolerably good: but the inferior kinds, for which there is no demand at Islington, is quoted, on account of its quality, considerably lowest in Smithfield, where it is wanted for low priced purposes.

REVIEW OF THE HOP TRADE.

AUGUST, 1836.

The demand for Hops throughout this month has been but moderate, and little has been done on speculation, notwithstanding the great fall that has taken place in the estimated Duty, which we quoted last month at 235m., and we now state at 190m. The weather has continued ever varying, and unsuited for the plant; the mould has increased considerably in Mid Kent as well as East Kent, and the bine, even in the best grounds, has not branched out so as to produce a heavy growth. The Hops are now entirely out, so that the probable estimate per acre can be pretty accurately judged; the Duty is not likely to vary much from the present estimate. If the nights remain cold, the Hops will be small and want condition, so that the last year's growth may be better worth the attention of the consumer. If we enjoy warm nights and fine days as the Hops hang singly, they will grow out very fine and possess condition.

PRESENT PRICES.

East Kent Pockets, . . . . .	84s	—	105s
Bags . . . . .	76s	—	100s
Mid Kent Pockets . . . . .	70s	—	90s
Bags . . . . .	60s	—	84s
Weald of Kent Pockets . . . . .	65s	—	90s
Sussex Pockets . . . . .	65s	—	84s
Yearlings . . . . .	40s	—	60s
Old olds . . . . .	18s	—	42s

The picking this year will not be general till about the 15th September, so that the season will be fully three weeks later than last. New Hops, it is expected, will realize a good price, as the supply will not only be late, but moderate.

## REVIEW OF THE CORN TRADE DURING THE MONTH OF AUGUST.

The seasonable supply of moisture, which the crops received during July, was extremely beneficial to their growth, and has caused WHEAT "to fill the bushel" much better than could have been anticipated, and it is not unworthy of mention that the plumpness and filling out of the grain in ear, has been known to make a difference of one bushel in eight, thus the shortness in straw and thinness of plant will be in *measure* partially compensated. All accounts received from the different counties seem to corroborate our statement made last month, that though the new wheat yields well, and in some instances to an unusual extent, owing to the full development of the grain, and length of ears, yet the deficiency on the light, gravelly, and poor soils will reduce the aggregate return below an average produce, more particularly as compared with later seasons. Smut also prevails to a considerable extent, and partial complaints are made of mildew, especially in the fens, many samples exhibit premature harvesting, having been cut too green, a system if hastily adopted and without judgment, and discretion as to the mature state of the kernel, is likely to prove detrimental to the quality in its return to the miller. Where the grain has become ripe, it has been housed in excellent condition, and the plan now pursued by farmers in several districts, of cutting their wheat with the scythe and employing more hands, renders them much more independent of the vicissitudes of our climate, and the rapidity with which the fields are cleared, astonishes the farmer who is wedded to *ancestral* customs. The BARLEY crop on the aggregate is favourably reported, particularly in Norfolk and Suffolk, being reckoned a fair average bulk, and if well harvested will produce a good sample; on the other hand, in some districts, especially in the western parts of England, the crop is thin on the ground and the straw stunted, and the sample likely to be coarse and irregular; as, however, the breadth of land sown with the article has been much increased, we are on the whole likely to have a large quantity offering the ensuing season, and as the prices of sugar and molasses have been steadily improving in value, it is thought a more active demand will be experienced for the secondary qualities of barley on the part of distillers, and should such be the case, farmers may calculate on another year of remunerating prices for this article. OATS vary much in their produce, according to locality and time of sowing: in some districts they are extremely thin on the ground, and unusually short in the straw and bell; while in others, the crop is thick and luxuriant, but taking the average, it will be deficient. The Lincolnshire new oats which have appeared in Mark Lane have been of good quality. Beans, from the want of rain, have turned off unfavourably, and will not prove the abundant crop at one time anticipated. The stalks are short, and in many instances badly podded, and the pods which have appeared are small; notwithstanding this partial failure, we are inclined to believe that the yield will not be below a moderate average. Peas have turned out a satisfactory produce, the quality even good in colour, but rather small.

From Scotland the agricultural reports have assumed a much more favourable character; the raw,

wet and boisterous weather, with chilling winds from the east and north-east, has been succeeded with a fine sunny temperature, unclouded skies and southerly gales. Wheat has not received any material injury from the cold and storm, except being retarded in its growth, which in a northerly climate renders the harvest more precarious. The quality of the wheat is however in instances represented as coarse and thin, and though the return will be deficient, yet it will be less than was at first calculated upon; in the lowlands reaping has already commenced. Barley, particularly in the northern counties, is short, thin and unpromising, and oats have not been long in ear; but the warm weather latterly experienced, has, with the powerful agency and co-operation of moisture, caused the vegetative powers of the plants speedily to effect a very visible alteration in the aspect of the fields; the produce however of this latter article, oats, promises on the aggregate to yield well, the straw though often found short is thickly headed, and in some parts a heavy crop is expected, but should the same animation pervade the manufacturing districts, and employment continue to a similar extent as at present experienced, especially in the flax spinning mills, the consumption of oatmeal, which is augmenting considerably, will check the shipment of oats, the ensuing, as it has done the present season. The stocks of wheat are far from being exhausted and many are the barn yards still well stocked with stacks. Turnips present for the most part the appearance of a heavy crop.

In Ireland the want of moisture was proving injurious to the crops, especially of summer grain and flax, but a seasonable and copious fall of rain has relieved the anxiety entertained on this account for the fate of the growing plants, and the wet being succeeded with warm genial weather has communicated a general fertility and strength, the ears filling well, and the accounts taken as an aggregate are favourable for all descriptions of grain. The samples of new oats which have appeared hold forth a satisfactory promise as to quality, and have at the leading markets realized 11s 6d to 12s 6d per barrel. Flax in the early districts of the county of Down is now pulling and looks well; the later sown having a second growth, cannot be expected to be so good. Should dry weather continue there may yet be a good season's produce, but at present it is impossible to predict what the result will be of the immature flax.

Harvest having commenced under the most favourable auspices, has caused a general dulness to pervade the wheat trade; and farmers, who for the most part entertained a favorable opinion towards retaining their stock, having shown more disposition to bring their samples forward, the supplies have exceeded those of the previous month by upwards of 13,000 qrs, and as millers could only be induced to purchase on lower terms, a gradual reduction was obliged to be submitted to of from 4s to 5s; but towards the termination of August, the weather having become more unsettled, and the *new* wheats, the first sample of which appeared in Mark Lane on the 8th of August, having come to hand much inferior to the earliest parcels received last year, being coarse, smutty, and tender, enabled holders of the better descriptions of old to realize 1s to 2s per qr more

money, the market at the close of the month being firm at the improvement: the new qualities ranged in value at from 42s to 50s, the best 52s, except the first sample exhibited, and that was a middling quality of Talavera, which sold at 58s.

An improved demand has prevailed for bonded wheat, in consequence of the receipt of orders for shipment to the United States; in addition to some speculative attention being directed towards the article in consequence of the agricultural reports from the more Southern States of America, and particularly Maryland, Virginia, &c., and should the result prove confirmatory of the unfavorable accounts of loss from drought and Hessian fly, much of the surplus stock of wheat on hand in this country arising from fresh investments are likely to find a more profitable vent, than awaiting the result of our own harvest. Little actual business has however transpired, holders generally demanding higher rates than purchasers are at present inclined to accede to, more particularly as a scarcity of vessels has been experienced for America. The stocks in bond have received an accession during the month of more than 15,000 qrs, principally from Danzig, the condition has varied considerably, some cargoes arriving sound and fresh, but the largest proportion turning out heated and much out of condition, which may perhaps in great measure be attributed to the imperfect mode adopted of drying the bulks as they arrive from the interior, by exposing them to the sun on the banks of the Vistula, which proves successful in hot weather, but when rain has prevailed, and the earth has been partially saturated with moisture, corn being an article extremely susceptible of imbibing any dampness in the atmosphere, which under the above circumstances must arise morning and evening, is not likely to be brought sufficiently into good condition to bear a lengthened voyage to England; the better samples of Danzig are offering here in bond at 36s. At LIVERPOOL, sales have been effected at 4s 6d to 4s 8d per 70 lbs for lower Baltic wheat, and 4s 9d to 5s, and as high as 5s 3d for Danzig, principally for shipment to America.

Though no alteration has been made in the top quotations of town-made flour, yet the trade has ruled very heavy, bakers only taking quantity necessary to meet their immediate wants, and prices of secondary parcels have receded in value. Owing to the continuation of warm weather holders of ship qualities were anxious to quit the different parcels on arrival, which could only be effected at a decline of 1s to 2s per sack. Bonded flour has continued to meet inquiry for shipment, principally to the West Indies; and good Danzig has readily obtained 22s; but as the accounts from the United States appeared to intimate, that though the produce of wheat would be more than equivalent to the demand, yet that the exports would be materially diminished, the article has attracted increased attention, as South America, the Mauritius, West India Islands, and other parts, which were dependant on America for the imports of flour, will now require large shipments from European ports to make up the deficiency. At LIVERPOOL purchases have been making of most of the parcels offering at 22s to 25s for sweet Baltic qualities; and American Western Canal sour, 22s; fine do., Rochester, 25s per barrel.

The alterations in the duties consist of an advance of 1s per qr on Wheat, the duty being 37s; 1s 6d per qr on Oats, duty remaining at 12s 3d; and instead of a diminution in the duties on Peas, as anticipated by many, an advance has taken place of 3s per qr, owing to part of the Lancashire averages having been struck out by the Inspector-General,

otherwise the forced average of 43s 8d for the week ending 22nd July, if followed by another high rate, would have doubtless reduced the duties to 6s 6d or perhaps 5s; instead of which, the aggregate average on the 29th being only 38s 8d, and on the 5th of August 35s 2d, the duties have been enhanced to 11s per qr.

The high range of the prices of distilling and grinding barley, and the approach of harvest, added to a favourable report of the crops from those counties usually supplying Mark Lane, combined in bringing forward increased supplies from Scotland, and especially Ireland, and many foreign parcels pressing on the market duty paid, caused the samples to prove much more than adequate to the demand, and prices have in consequence given way fully 1s to 2s per qr for both descriptions; and foreign in bond being almost unsaleable, Mecklenburg and Holstein being offered at 20s to 22s. During the month about 4,000 qrs have paid duty. A few samples of new barley have been shown from Kent and Suffolk; the quality of the Chevalier was good, but of the others only middling; no price is yet fixed for the samples, being shown more with a view of ascertaining their value than of effecting sales.

The malt trade has remained in a languid state, without, however, the currencies undergoing any variation.

The supply of oats from England and Scotland has been very moderate, but from Ireland considering the period of the year the importations have been liberal, and exceed those of the previous month by nearly 2000 qrs. A few parcels of new oats have appeared from Kent, Lincolnshire, Cambridgeshire, and Ireland, and in addition to the 13,000 qrs of foreign oats which paid duty the last week of July, several cargoes on arrival from abroad have been also entered for the consumption, which circumstances have contributed to render the trade languid and heavy, purchasers buying with caution, and speculators having little inducement to get into stock, as the new Irish crop is favourably reported, and no reduction has taken place in the quotations of the better descriptions, but inferior, particularly Irish and foreign, and stale ill-conditioned samples have been difficult of disposal at a decline of 6d to 1s per qr. The new English oats have in one or two instances come green and prematurely harvested, but other English samples, with the Irish, were of good quality. The inferior sorts of foreign will not admit of entry at the present duties of 12s 3d, and even the finest can be only rendered free at a considerable sacrifice; fine heavy Dutch brew are offering at 28s, duty paid; Russian sound feed are worth 22s to 23s; other foreign feed, 22s to 24s. New Irish oats from the west coast have been offering at 11s to 11s 6d, deliverable in October and November.

Though several parcels of foreign beans have been offering free, yet the reports of the crop having been less favourable, the article has experienced more inquiry at an advance of fully 1s per qr. The averages also are progressively advancing, and as the duties will no doubt decline to 9s 6d, holders will be enabled to make their entries at the lowest range likely to be attained this season.

Several samples of new peas have been at market, Essex and Kent boilers obtaining 35s to 36s, Suffolk, 36s to 27s, grey, 34s; towards the middle of the month nearly 7,000 qrs of foreign having paid the duty of 8s, and being pressed on the markets, caused the trade to become heavy, grey being noted 1s to 2s per qr; but in white little alteration was experienced in the quotations; as the duty has advanced,

the market has rather improved, the article being more ready sale, and white qualities realizing 1s per qr more money.

The following are the quantities of Barley, Oats, Beans and Peas which have paid duty in LONDON, LIVERPOOL, HULL and BRISTOL, for the current year ending 20th of August.

	London.	Liverpool.	Hull.	Bristol.	Total.
	qrs.	qrs.	qrs.	qrs.	qrs.
Barley ..	4,176	...	..	1,080	5,256
Oats ....	22,574	26	...	1,079	23,679
Beans ...	3,836	2,742	355	940	7,873
Peas ...	14,293	15,438	1,095	2,602	33,428

During the month of July the following quantities of Grain and Flour have arrived in the Port of London.

	Wheat.	Barley.	Malt.	Oats.
	qrs.	qrs.	qrs.	qrs.
English .....	35,158	1,612	17,120	81,165
Irish .....	...	3,624	378	8,986
Scotch .....	10	3,921	...	41,953
Total in August	35,168	9,157	17,498	59,104
Total in July.	22,647	6,846	16,753	56,169
Total in June.	33,585	11,933	24,128	149,603
Foreign in Aug.	15,199	10,749	...	16,702

	Beans.	Peas.	Linseed.	Flour.
	qrs.	qrs.	qrs.	sacks.
English .....	2,612	2,294	...	27,255
Irish .....	...	...	...	115
Scotch .....	...	...	...	...
Total in August	2,612	2,294	...	27,473
Total in July.	2,681	427	...	28,236
Total in June.	4,098	529	2	38,742
Foreign in Aug.	2,641	1,682	59,372	brls. 4,292

At HALIFAX fine flour was selling at 35s 9d per barrel, but prices were expected to recede, as, in addition to the large supplies from Canada, shipments were on their way from England and Gibraltar.

In JAMAICA the stock of flour was very limited, even in the baker's hands, and the importers had no fresh samples to offer. Some good Copenhagen flour had realised 56s 8d currency per barrel, equal to 40s 5d sterling.

In FRANCE the general tenor of the agricultural reports indicate that the crop of wheat will be materially deficient, as compared with the produce of last year, and by many, the diminution is estimated at one-third, on cold, sandy, and chalky grounds, and one-fourth on the richer soils, and by some, it is calculated that the general produce will be on an average, one-fourth below the growth of 1835; the quality is, for the most part, inferior, much of the grain from want of moisture, having been rendered small shrivelled; smut also prevails to a considerable extent. Barley is not complained of, but oats are short in the straw, and, with a few exceptions, deficient in the bell, and thin on the ground. At PARIS however, the impression appears to be, that the quality will be inferior to that of last year, and the quantity about one-sixth less; but as the harvest was the past season extremely abundant, it may be estimated at a low average return; however, in reading over the markets' letters from the different departments, we are induced to think, that many samples, though thin and light, and considerably inferior to the produce of 1835, yet there are many parcels will be found heavy and plump, exceeding even those of the last crop, which may reduce the aggregate yield nearer to an equality than the past growth. At Marseille prices of the better qualities of wheat have improved in value, owing to belief gaining ground that the ac-

counts respecting the falling off in the produce of the new crop, are not without foundation. At all the leading markets the currencies are either firm, or evincing a tendency to improve.

In the Upper Baltic markets, little alteration has been sustained; at St. Petersburg and Riga, with the exception of a few purchases of rye, nothing of interest has occurred in the grain trade; linseed at the former city was held at 41s 5d to 42s 4d for the best qualities. At Konigsberg, notwithstanding the dull accounts received from England, prices remained firm for wheat; high-mixed old of 1834 was noted at 34s to 36s, new, 26s 10d to 28s 6d: rye, 15s 3d to 20s: oats, 11s 9d to 12s 6d. The weather the beginning of the month was cold, stormy and wet, and much damage had been sustained by the flooding of the Pregel; wheat and rye promised a tolerably good return, but barley and oats the contrary. At Danzig extensive purchases of inferior qualities of wheat had been made for Liverpool, at 25s to 24s; the demand for the better descriptions continued, but the supplies were not equal to the quality required; real fine high-mixed wheat, great part the growth of 1834, had sold at 32s 6d, and 3000 to 4000 qrs of wheat had been purchased for Philadelphia with a freight of 8s: rye was also in request for the United States. The wheat crop was favorably reported; rye was cut, but only a moderate produce; barley, oats and peas had assumed an unpromising appearance; rapeseed had been got in out of condition, and was not fit to bear a long voyage. In the Lower Baltic ports prices have sustained little variation; purchases of wheat have been making in MECKLENBURG for shipment to the United States at 26s, the currencies having ranged from 25s 6d to 26s 6d; barley was held at 17s 6d; rapeseed was improving in value, and was noted at 29l to 30l per last. In HOLSTEIN, wheat was worth 25s; barley, 18s to 20s; rapeseed, 29l 8s to 30l, warranted dry. On the rich well-cultivated lands the yield of wheat, barley and oats was expected to reach a fair average, but on all inferior soils it will be considerably below one, and in many cases to the extent of one-half; taking the whole of the Duchy, if the weather remains favorable, the amount of produce will be rather less than an average; but if the contrary, the deficiency will be considerable: rapeseed had yielded better than had been anticipated. At HAMBURG, several orders have been received for shipment, principally to the United States, and prices of wheat have been firm with a tendency to advance, other articles have sustained little variation; rapeseed was quoted at 30l 10s to 31l 17s per last. At BREMEN, wheat has continued to meet demand for the United States, and previous currencies were in consequence supported.

In HOLLAND, the crop of wheat was generally represented as inferior in quality and weight to the produce of last season.

The accounts from the UNITED STATES of America are rather more favorable, for though the destruction of the wheat crop had been considerable in the Southern States, and the failure had extended to parts of Pennsylvania, yet in Ohio, Genesee, Vermont, &c., and the more important wheat districts of the Union, the weather had had a very beneficial effect on the crops, which held forth more promising results than had been anticipated; advantage however was being taken by holders of wheat and flour to demand higher rates, and the stocks being extremely small, they were enabled to realize the enhanced range of price, until the deficiency in the crop is more accurately ascertained, which will doubtless prove much less than the average of former years, yet no direct import will be required to meet the home consumption; but

there will be a material diminution in the capabilities of exporting flour to South America, the West Indies and other ports, who have hitherto depended for their supply of flour from America. At New York, all the foreign wheat had been cleared off, and the only quotation was North River quality at 55s; Western Canal flour had advanced to 32s 7d to 33s 9d per barrel. At BALTIMORE, fine white wheat had obtained 64s 4d, and new of the same quality had been contracted for at the same rates; prime red was quoted worth 62s 4d per qr; Howard Street and City Mills flour had improved, and was selling at 35s 9d to 36s per barrel.

**CURRENCY PER IMPERIAL MEASURE.**

	BRITISH.		Aug. 1.		SEPT. 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk.....	40	52	42	40	48	48
White.....	42	58	46	55	55	55
Norfolk, Lincolnshire and Yorkshire...	38	50	40	47	47	47
White, do. do.....	40	55	40	50	50	50
West Country Red.....	28	48	38	46	46	46
White, ditto.....	40	54	40	52	52	52
Northumberland and Berwickshire Red	44	47	39	44	44	44
White, ditto.....	38	52	39	48	48	48
Irish Red.....	—	—	—	—	—	—
Ditto White.....	—	—	—	—	—	—
Barley, Malting, new.....	—	—	—	—	—	—
Chevalier, new.....	—	—	—	—	—	—
Distilling.....	32	36	32	35	35	35
Grinding.....	28	34	28	32	32	32
Irish.....	26	31	25	30	30	30
Malt, Brown.....	44	52	44	52	52	52
Ditto, Chevalier.....	60	64	60	64	64	64
Ditto, Norfolk and Suffolk Pale.....	50	60	50	60	60	60
Ditto Ware.....	60	64	60	64	64	64
Peas, Hog and Grey.....	32	34	31	33	33	33
Maize.....	32	35	32	35	35	35
White Boilers.....	34	37	34	35	35	35
Beans, small.....	38	40	38	40	40	40
Harrow.....	36	38	36	38	38	38
Ticks.....	34	36	34	36	36	36
Mazatan.....	34	36	32	36	36	36
Oats, ENGLISH feed.....	23	24	23	24	24	24
Short small.....	25	27	25	27	27	27
Poland.....	24	27	24	28	28	28
Scotch, Common.....	24	26	24	26	26	26
Berwick, &c.....	24	27	24	27	27	27
Potatoe, &c.....	25	27	25	28	28	28
Irish, Feed.....	21s 0d	23s 0d	21s 0d	22s 0d	22s 0d	22s 0d
Ditto Potatoe.....	22s 0d	23s 0d	22s 0d	24s 0d	24s 0d	24s 0d
Ditto Black.....	22s 0d	23s 0d	22s 0d	23s 0d	23s 0d	23s 0d

**PRICES OF FLOUR,**

Per Sack of 280 lbs.	Aug. 1.		SEPT. 1.	
	s.	s.	s.	s.
Town-made.....	40	48	40	48
Norfolk, Suffolk, Kent, and Essex.....	36	38	31	36
Sussex and Hampshire.....	33	36	33	34
Superfine.....	37	—	35	—
Lincolnshire, Yorkshire, and Stockton.....	32	36	32	34
Northumberland, Berwick, and Scotch.....	32	35	32	33
Irish.....	33	36	33	35
Extra.....	37	—	37	—

**IMPERIAL AVERAGES.**

Week ending	Wheat.	Barley	Oats	Rye	Beans	Wheat.
	50 7	33 1	23 10 36	6 39	7 42	10
8th July	50 7	33 1	23 10 36	6 39	7 42	10
15th "	49 4	32 10	23 8 25	4 39	6 41	6
22nd "	49 2	32 7	23 8 33	9 39	2 43	8
29th "	49 6	32 4	23 9 34	10 40	1 38	8
5th Aug.	50 8	32 1	23 10 35	10 40	1 35	2
12th "	50 4	32 3	23 11 35	2 40	11 35	7
Aggregate Average of the six weeks which regulates the duty.....	49 11	32 8	23 9 35	3 39	10 39	7
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London.....	37 8	13 10	12 3 16	9 11	0 11	0
Do. on grain from British possessions out of Europe.....	5 0	2 6	2 6 3	0 3	0 3	0
Foreign Flour, 22s 8d per 196lbs. British Possessions do., 3s per 196 lbs.						

**STOCK OF GRAIN AND CLOVERSEED IN BOND IN THE PORT OF LONDON ON THE 5TH AUGUST.**

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Cloversd.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
229,608	7,136	68,635	8,441	5,342	42,505	30,581
Rye, — qrs						

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th Aug., 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

Quantity imported....	Wheat.	Barley.	Oats.	Rye.
	bush.	qrs.	qrs.	qrs.
Do. entered for home consumption.....	13,733	6,030	22,573	..
Do. remaining in warehouse.....	568,066	32,654	229,741	1,487
Quantity imported....	Peas.	Beans.	Maize	Flour.
	qrs.	qrs.	qrs.	cwts.
Do. entered for consumption.....	11,695	9,098	..	15,652
Do. remaining in warehouse.....	15,711	6,069	425	62,34
Do. remaining in warehouse.....	14,158	61,069	39	188,883

**WOOL MARKETS.**

**BRITISH.**

AUGUST 22.

During the last week the disposition for making purchases has varied; at the commencement the ardour previously displayed in purchasing seemed to abate, at the close there were pretty good signs of returning briskness.

The future state of the market seems to be wrapped in obscurity; the fact of the goodness of trade would seem to predict briskness, but the fact that only a small proportion of the new clip has actually reached the market, contrary winds having delayed its progress, would lead to the conclusion that an advance will not speedily take place, but that some dullness may be expected.

But, however, should the trade for the manufactured material remain in its present state, it will be only affected slightly by any extraordinary influx at any particular time.

Per lb.	AUGUST 1.		SEPTEMBER 1.	
	s.	d.	s.	d.
Down Tegs.....	1	9 to 0	0	1 9 to 1 10
Half-bred do.....	1	9	1 10 1/2	1 9 1/2 1 10 1/2
Ewes and Wethers.....	1	6	1 8	1 6 1 6 1/2
Leicester Hogs.....	1	5	1 6	1 5 1 6
Do. Wethers.....	1	3	1 6	1 2 1/2 1 3 1/2
Blanket Wool.....	1	0	1 6	0 9 1 3
Flannel.....	1	3	1 9	1 3 1/2 1 8
Skin Combing.....	1	4	1 6	1 5 1 7

**SCOTCH.**

Per Stone of 24 lbs.	AUGUST 1.		SEPTEMBER 1.	
	s.	d.	s.	d.
Laid Highland Wool, from.....	12	6 to 13	0	12 6 to 13 6
White Do. Do.....	16	0	16 6	16 0 17 0
Laid Crossed Do.....	17	0	18 0	17 0 18 0
Washed Do. Do.....	18	0	19 0	18 0 19 0
Laid Cheviots.....	20	0	22 0	20 0 22 0
Washed Do.....	26	0	28 0	26 0 28 0
White Do.....	32	0	36 0	32 0 36 0

**FOREIGN.**

AUGUST 22.

About 1,000 bales of German wool have formed the past week's supply. Public sales of about 4,000 packages of Australian, Cape of Good Hope, German, East Indian, Turkish, and Russian wools, will take place, at Garraway's, the 7th, 10th, 13th, and 14th. Private contract trade is tolerably brisk, at our last week's quotations.

**BONES.**

Since our last there have passed the SOUND or ELSINORE, the GREAT BELT, and the HULLSTEIN CANAL, ships loaded with Bones, bound for Hull, 12; other parts of England, 2.

## TURF INTELLIGENCE.

The month (August) which has just passed away, has been remarkable for the number of Races which have taken place during its progress, if not for the general importance of the meetings, though, in regard to the latter consideration, inasmuch as our observations will necessarily carry us back to Goodwood, the present article will embrace one at least of the most important and influential meetings of which this country can boast; which, as respects the Turf, leaves all other parts of the world at an immeasurable distance. The Goodwood race list, it is true, includes neither a Derby, an Oaks, nor a Great St. Leger; but who can peruse or contemplate this judicious and well estimated document without perceiving much more than ordinary consequence attached to each of the items of which it is composed, but particularly to those prominent and unparalleled features, the Drawing Room Stakes, the Goodwood Stakes, and the Cup? Warmly supported by the influence of persons distinguished for pre-eminent rank, conducted in a manner much superior to any similar establishment, Goodwood meeting, regarded in the aggregate, must be considered the first in the kingdom.

The late Goodwood meeting commenced on the 27th of July; and therefore, although we made a few observations on the most prominent candidates for the Stakes and the Cup, we were unable to communicate to our readers the decision of these highly important prizes, or rather the performances of those nags which took the lead in the money market. Rockingham was named for the Goodwood Stakes and also for the Goodwood Cup; and prior to Ascot Races might be considered a general favourite. In a former number of our publication we stated our opinion of the racing capabilities of Rockingham: we remarked that, although he won the Doncaster St. Leger, his speed was not of a very superior description, and posterior events have fully proved the truth of this notion or impression on our minds. Rockingham lay by and was well nursed for the most valuable Cups of the present season, and made his debut for the year at Ascot. On this occasion he met an excellent racer, (Touchstone) by whom he was beaten without being able to force his competitor to "the top of his rate:" the wretched second which Rockingham made on this occasion ought to have convinced every person that "his day had gone by;" though he was only a six-year-old, who had never been over-marked, nor yet done too much work. In a conversation on this subject with an enthusiastic admirer of Rockingham, he insisted that this horse lost his race for the Ascot Cup owing to the bad jockeyship of Macdonald; however, we think very differently; Rock-

ingham, compared with Touchstone, sinks to nothingness in any view of the case, and on this occasion, it was as evident as possible from the moment they came away from the starting post that he could not stride one yard with him. However, as Rockingham was as favourably weighted as possible for the Goodwood Stakes and the Goodwood Cup, he was not destitute of support amongst the book men. Mr. Theobald (his owner) thought Rockingham's chance for the Stakes was preferable to that for the Cup, having neither Touchstone nor any of those formidable opponents to meet from which he had anything to dread. However, *le même chose*, Rockingham reiterated his exhibition at Ascot, and even his warmest friends must have now been convinced that his racing powers (never of the first order) had evidently experienced a fatal retrocession. It was as clear as possible that he had not the shadow of a chance for the Goodwood Cup against such opponents as Hornsea and Elis; but as he had been backed by the public, Mr. Theobald very generously allowed him to start—he did not get placed: Hornsea won very cleverly, Elis running second, Bamfylde third.

If Epsom races have languished for some years under the the management of the Baron de Tesseir, Dorling, and Co., if Ascot meeting grew sickly under the sinister direction of its prominent, or rather its pecuniary, official agents, the venerable Ebor, celebrated in the Roman annals, as well as for its gallant opposition to that ferocious Norman robber, William I. which shone with dazzling lustre as a star of the first magnitude in the racing constellation, has been equally unfortunate of late, and is fast fading away under the unsatisfactory and suspicious guidance of its mysterious, if not murky, functionaries. Many of our readers will perhaps recollect the *Budget affair* at the York (August we believe) meeting of 1835: if so, they will be aware that Budget in cantering up to the starting post threw one of her plates: and that the clerk of the course, instead of waiting a few seconds for the purpose of refixing the plate, started the rest of the field, and declared the start fair (how stood the clerk's betting book on this occasion?) But the Jockey Club reversed this monstrous decision. On the last day of the York August Meeting, (which was the 4th ult.) Mr. Bowes's, The Cauld Lad of Hylton, ran second for the Produce Stakes, Mr. Skipsey's The Bard contriving to get his nose first to the winning post; but the rider of The Cauld Lad (George Nelson) charged Heseltine, who *jockeyed* The Bard, with foul riding, with having in fact at the distance, ran against him, nearly knocked his horse down, and thus forced him out of his

ground or line. We know Nelson, we have seen him ride many times, and we believe him to be a man who would scorn to make an unjust charge against any person; we have observed the *jockeyship* of Heseltine on more than one occasion, but never admired either the working of his head or his hands; the business was referred to the Stewards, who gave the race to The Bard. This seems strange! The days of crossing and jostling have long since passed away; the acknowledged law of riding is for each jockey to take his own line or ground and keep it; nor have we the least doubt that had a jockey at Newmarket been guilty of forcing a competitor out of his ground, he would have been disqualified and consequently disgraced. In the present state of York as a Racing Establishment, the formerly splendid August meeting having dwindled into an almost unattended business of two days, it may have been judged prudent to hush up the matter; yet, however well intended such prudence may be, it can scarcely fail to create mistrust and dissatisfaction as well as to produce the most injurious effects upon future proceedings. If a horse be forced out of his ground, he will in all probability change his leg; and, in such case, what chance of winning remains for him, even though he may possess a decided superiority of speed, when there is only two hundred and forty yards (the length of adistance) from home, as was the case in the present instance? And that there were strong grounds for the charge of foul riding, we cannot refrain from thinking, notwithstanding the decision of the stewards.

Unsatisfactory management has evidently produced disgust in the minds of the citizens of York, one of whom having thrown out a few general observations on the subject in the York Chronicle, is fiercely encountered by Mr. W. Lockwood, keeper of the match book, who, taking the charge to himself, appears, if not in the lists, at least in the York Herald of August 13; where, however, he makes but a poor figure, as he leaves the very essence of the charge untouched. From the peculiarity of the style of this composition, the vulgarity and egregious self-conceit which it manifests throughout, we should suppose "Mr. W. Lockwood, keeper of the match book," and "Alfred Highflyer" of the Old Sporting Magazine, as identified, as one and the same person. Be this as it may, on the present occasion, the writer, under the *soubriquet* of "a Well-wisher to the Races," asks what has become of the subscription (amounting to £200*l*) to the October Races last year? to which the keeper of the match book gives the following laconic, if not very pithy, answer, "George Swann, Esq., banker, was the treasurer." He might as well have said Presto! begone! Had the keeper of the match book stated from whom the sum was raised individually, and the manner in which it was afterwards appropriated, we should have had something in a tangible shape, and nothing less will appear

satisfactory to every disinterested person under whose observation the statement may fall. We regret such bickering where all ought to be harmony; we regret it exceedingly on account of its pernicious influence on the proceedings of the turf, and which if not satisfactorily silenced will prove an extinguisher to York Races at no distant period.

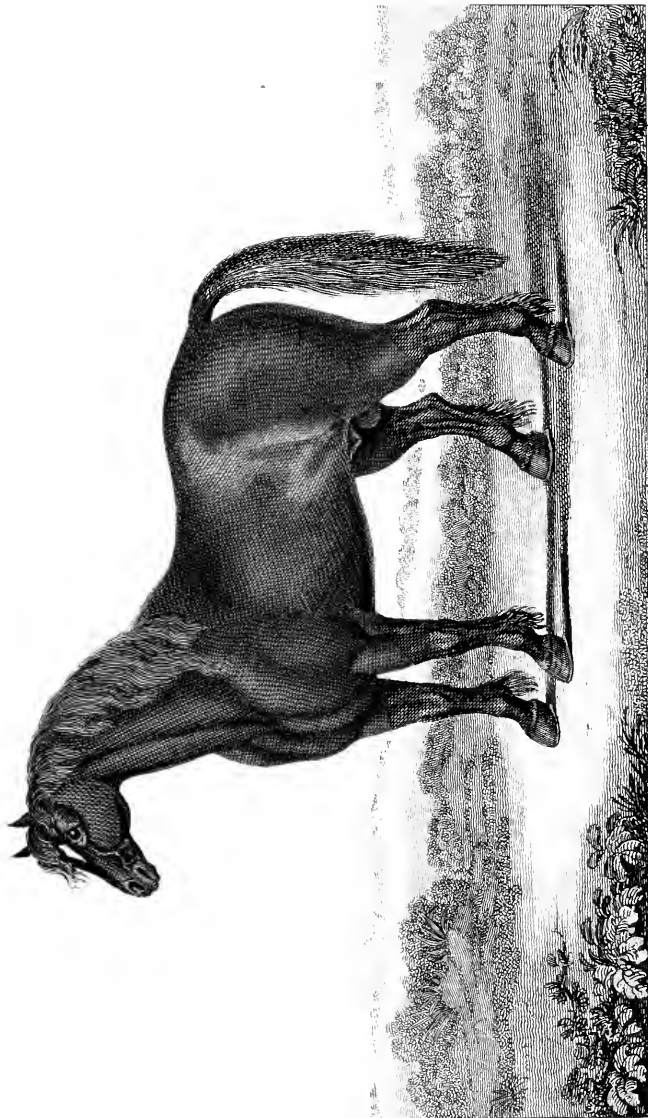
The ensuing Doncaster Cup is more than ordinarily interesting, inasmuch as it will bring together Touchstone and Queen of Trumps, the former the best horse at present on the Turf, the latter the most extraordinary filly that ever appeared. The former has not proved uniformly successful throughout his racing career, but whenever beaten, he was not in his "own form;" that is, not in perfect condition. Touchstone is a greedy feeder, and when trained upon the Marquis of Westminster's ground did not receive sufficient exercise, lest his legs should give way; but when, under the care of John Scott, he could take his gallops upon the beautifully elastic turf in the neighbourhood of Malton, he ran always, we believe, successfully. If this horse has never been overmarked, he has done much work; yet he has always trained on, has become large and bulky, and is a better racer at the present moment than at any anterior period of his life. His noble owner seemed to be aware of the superiority of his horse when he gave a general challenge; which, however, was not accepted.

Having remarked that Queen of Trumps is the most extraordinary filly that ever appeared, the observation is not intended to apply to the number of races in which she has appeared, nor yet exactly to her *uniform success*, (the Ainderby affair, when a bull dog was slipped at her, amounts to nothing as regards her decided superior qualities;) but from her style and manners of running, from the ease with which she has gone away from all her competitors. We confess our surprise was great when we witnessed her performance last year for the Oaks. Preserve, who had proved herself a racer of no ordinary quality, had continued the almost unapproachable favourite for the Oaks for some months up to the eve of its decision; when something was whispered about Queen of Trumps which staggered the book-men: in answer to a question which we addressed to Tommy Lye (her rider) on the eve in question, he replied, "She'll take a deal of beating." The important moment at length arrived: they started; and it became evident in a few strides that Preserve could not live with the Cambrian Queen.

Neither Touchstone, nor Queen of Trumps is an iota, we believe, worse for the work they have done; they have been kept in reserve for the Doncaster Cup; they will come to the starting post, "as fresh as paint; and we think the Queen will prove the winner.







**THE BRITON JACK'S ALIVE**

*the Property of Mr. M. M. Northcote, of Sarnon, Yorkshire, exhibited at the Meeting of the East-riding Agricultural Association, at Beverley, July 27th 1851.*

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# THE FARMER'S MAGAZINE.

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[Vol. V.

## THE CART HORSE.

(PLATE.)

No animal in the wonderfully diversified circle of creation, is more susceptible of alteration from the influence of climate and food, than the horse.—Amidst the luxuriant, and grossly succulent, pasturage of Flanders, Lincolnshire, and some other parts of this country, he attains an almost elephant-like size; but this superior bulk or ponderosity, cannot be acquired, without sacrificing the more valuable quality or texture of this noble animal. Feeding unlimitedly in the meadows or marshy grounds, where the exuberant herbage is swoln with juice, the horse attains an extraordinary size; but his bones become porous, his tendon less hard, and less elastic, his muscle soft and flabby. In that part of the extensive county of York, (in the North Riding, bordering upon Durham,) celebrated for its breed of horses, distinguished by the appellation of the Cleveland Bay, the pasture grounds consist of what are well known by the term Uplands; the herbage which they produce, is much less juicy than that of the marshes and meadows of Lincolnshire or Flanders; the horses fed upon this less exuberant and less succulent pasturage, attains a good size, but is much inferior in bulk, to the very heavy variety of the tribe previously noticed; but his bone becomes more solid, his tendon harder, his muscle more firm and more elastic: the Cleveland Bay, it has been asserted, is indigenous to this country; but such a notion will not endure the test of investigation. In Arabia, it is uniformly acknowledged, the horse attains his greatest perfection: or, in other words, the genuine courser of that country, is allowed to be superior to the indigenous horse of any other part of the world: not that he attains a large size or bulk in Arabia; on the contrary, he is light, like the people amongst whom he is produced; like them also, he is remarkably sinewy and elastic, and, speaking by comparison, much stronger than any other class of his elegant and highly useful fraternity. It is abundantly evident, that the tropical or almost scorching heat of an eastern sun, are congenial to the constitution of the horse, from which, in conjunction with the benty, hard and scanty pasturage, and dry food, upon which he is constrained to subsist in such parts of the globe, he derives that solidity of bone, that development and strength of tendon, that firmness of fibre and muscle, for which the eastern horse has always been pre-eminently distinguished.

In this slight review of the different or distinct classes of the animal under consideration, we intend our observations in reference only, to the operations of nature, without regard to that adscitious influence, resulting from human industry, and human genius. The horse may be said, to be the creature of circumstances: when left to the simple operations or unassisted influence of nature, we find him in

Flanders and Arabia presenting very different appearances; beneath heat almost insupportable to human beings, he acquires his most valuable quality, while in the milder regions, he attains his greatest size; he becomes less in the colder climates of the north, and vanishes altogether from the frigid latitudes nearer the pole.

However, in regard to that ramification of the tribe least calculated for the heavier kinds of draught, and for the purposes of husbandry in particular, which is intended to constitute the principal object of this disquisition, we feel it necessary to remark, that a very erroneous notion, originating in the grossest, if not the most sinister, ignorance, has been propagated for the last half century, and has, up to the present moment, remained uncontradicted: in describing the organization or form of the cart horse, a *straight* or *upright shoulder* has been recommended in preference to that genuine, and very natural obliquity of the parts which render this animal not only so beautiful, but so much better calculated for all those purposes to which his speed, or strength can be applied, or of which he is susceptible. Mr. John Lawrence's title to the merit of originating the spurious advocacy of the *straight* or *upright shoulder*, is indisputable: many years have elapsed since he first promulgated this most ignorantly absurd, and grossly fallacious doctrine, which has since been preached and disseminated, by a horde of minor literary quacks, whose existence forms a stigma on the unthinking liberality of the public. A *straight shoulder* in the elephant or the giraffe may be correct enough, for aught we know to the contrary; but in the horse, it becomes a mal-formation, it gives him a grotesque or unsightly appearance, and renders him incapable of exerting his strength to advantage, either with the saddle, or in gears. An upright shoulder must impede the action of the horse, "he cannot be a good walker," as was very correctly remarked by a judicious friend; while the strength or horizontal pressure, which might be otherwise thrown into the collar, is very much deteriorated, if the freedom of the animal's respiration be not affected also. As the power of propulsion in the progressive motion of the horse, is derived from his hind quarters, it will be found, even on a slight examination, that the formation which renders him so eligible for the saddle, gives him a similar advantage when applied to draught. If, for instance, we notice a draught horse exerting himself at a dead pull, we shall find that he will sometimes lift his fore feet entirely from the ground, and that too, when he is evidently applying the utmost of his force to the collar: in such case, it is clear, the upright shoulder could add nothing to the horizontal pressure, or the application of the animal's strength in drawing. When the shoulder of the draught horse is straight or upright, in the act of drawing, the pressure against the collar is spread over a more extensive surface, and consequently rendered less effective, than when, by the

obliquity of the same part, it is more concentrated, and therefore more directly applied to the purpose. Let us have a broad full bosom or breast, in the cart horse, with a corresponding development of the lower part of the shoulder; but, in the name of all that is reasonable, let the latter present that obliquity indispensable to safety in the saddle, and equally desirable for the collar.—Nothing can be more dangerous, than to put an upright shouldered horse in the shafts of a cart, since he must be liable to fall at every step; even without the slightest weight on his back, such a horse is a very unsafe goer, because his formation prevents him from lifting his fore feet sufficiently high; but when the effect of external weight or pressure, is added to that of the malformation of the shoulder, the danger is doubly increased.

The low dropping chest, and that posterior strength, so requisite in the saddle horse, and so indispensable to the successful career of the racer, is equally eligible in the draught horse, whether used for harness, for husbandry, or the slower and more heavy operations of the brewer's dray.

The Cleveland Bay, tho' well adapted for harness, as well as for the light husbandry operations of that part of the kingdom whence this class of horses derived the name, are not sufficiently bulky for heavy draught; while remarks somewhat similar, may be applied to the Clydesdale Horse, for which, it seems, we are indebted to one of the Dukes of Hamilton, who brought from Flanders six stallions of the coach kind, about the close of the seventeenth century; and crossed them with Lowland mares. The veracity of this account, however, has been impugned; and, as we should be unable to arrive at a satisfactory result, were we to place the opposing recitals before the eyes of our readers, we will abandon the more than doubtful investigation as to the origin of the Clydesdale horse; as, whatever may be the source whence he sprung, he is still to be numerously met with in Lanarkshire, and the circumjacent neighbourhood.

The Clydesdale horse is more powerful perhaps, than the Cleveland bay; but he is well calculated for the Lowlands of Scotland; he is active, capable of great muscular exertion, and is consequently very valuable in hilly countries.

The Suffolk Punch, formerly so common in some parts of this country, has become scarce. Their prevalent colour is a sort of sorrel; as their name expresses, they are compact; they present entirely the character of the cart horse, and are therefore not calculated for celerity of motion. However, it is said, they are quick walkers, draw steadily, and are remarkable for their almost invincible perseverance at dead pulls.

The Suffolk Punch gave way before the introduction of the improved Leicestershire breed of Black Horses. About a century ago, Mr. Bakewell (to whom this country is indebted for what may be called the original improvement in its breed of sheep and horned cattle), turned his attention to the improvement of the horse for heavy draught. This gentleman resided on an extensive farm, two miles from the small town of Loughborough, in Leicestershire, in the village of Disliley; and, although no doubt can be entertained as to the superiority of his judgment, as well as in regard to his laudable spirit of enterprise, the sequel proved that his anticipations were formed upon a calculation somewhat erroneous; a circumstance which can excite no surprise when it is considered that even the rudiments of the science of animal improvement were either not understood, or in a state of the most inert and helpless infancy:

Mr. Bakewell enjoyed not the least previous light from the labours of others to illumine his devious way, and therefore it is no wonder he was unable to prosecute an undertaking so arduous and so intricate with straight forward and unqualified success; nor that he should spend a fortune in the furtherance of his patriotic views. Supposing that enormous bulk was indispensable to the perfection of the heavy draught or cart horse, he turned his attention at the outset of his career to the ponderous, hairy-legged horse of Flanders, whence he imported both horses and mares, which he crossed with the large draught animal already found in Lincolnshire as well as in the midland counties of the kingdom; from which, about seventy years ago, he produced a horse, which he regarded as the best cart horse which had ever been seen, and which he sent to Hyde Park Corner for the inspection of George III. That monarch, however, did not second the views of this enterprising farmer, who nevertheless succeeded in spreading this breed of large heavy black horses throughout the midland counties. The appearance of these animals was extremely imposing upon superficial observation; they were uncommonly large and uncommonly bulky, while their long tails, and very long flowing manes, aided the effect produced by the contemplation of their extraordinary size. They were well formed; but from the abundance of hair which covered their legs, they always appeared unsightly in our estimation, and impressed the idea upon our minds of that lack of activity which posterior trial incontestably proved. However, they maintained their stand for some time; and, like our racers, many of them became celebrated for the superiority of their stock. Many of them were also extremely vicious. A favourite horse of Mr. Bakewell's could only be approached with the utmost caution, even under ordinary circumstances: one of the servants only dared to perform the operations which the health, &c., of this savage animal required; and, in the days of our boyhood, we have frequently heard this (then old) man remark, he was sometimes severely bitten, and often compelled to make his way into the manger or the rack, in order to escape from further violence or death. It unfortunately happened, that a young man from a neighbouring county (Derbyshire) offered his services to Mr. Bakewell for the purpose of attending the stallions, particularly the vicious animal of which we have been speaking, priding himself upon his superior skill or dexterity in the management of unruly horses: his offer was readily accepted, and his predecessor very gladly resigned to him an office, the duties of which were pregnant with danger; cautioning his successor of his imminent risk, and pointing out the best mode of approaching and managing the animal in question. The advice was offered from the best possible motive, but received with indifference; and the consequence was, that the horse killed him the very first day of his attendance upon him.

The influence of the celebrated James Sullivan was never tried upon this dangerous horse; nor would any proof short of what may be called ocular demonstration, have convinced us of its efficacy in the case under consideration, as well as of several others which have, at various periods, fallen under our observation. James Sullivan, we are told, was a native of the county of Cork, and an awkward, ignorant rustic; who followed the profession of horse breaking, and was distinguished by the appellation of *The Whisperer*. This *soubriquet* was bestowed upon him in consequence of a notion entertained by the vulgar, that, in his management of intractable and dangerous horses, he communicated his wishes to them in a

whisper; arising, beyond all question, from the singularity of his method of proceeding. How his art was acquired, or in what it consisted, is not known; it may be said to have expired with its original possessor: for, although his son follows the profession of the father, he is unable to exercise the same sort of magical influence over the temperament of an unruly or vicious horse. The most surprising part of his skill consisted in the short time requisite to accomplish the object, which was performed in private, and without any apparent means of coercion. Every description of horse, or even mule, whether previously broke in or not, whatever their vices might be, submitted immediately to the irresistible influence of his art, and in the short space of half an hour became as obedient as possible; while the effect, though almost instantaneously produced, was generally durable: though more submissive to Sullivan than to others, horses altogether unmanageable before this man's mysterious process was tried upon them, acquired a docility which they had previously never manifested. When he was employed to reduce a vicious horse to subjection, he shut himself up in the stable with the object of his experiment, and directed the door to be opened only when he gave the signal for that purpose. After the lapse of about twenty minutes or half an hour, during which no hostile movement, or even bustle, was heard, the signal was given; and, upon entering the stable, the horse was observed lying down, and Sullivan by his side, playing familiarly with him, like a child with a good natured dog. A proof of this man's skill was publicly given on a horse which could never before be brought to stand for a smith to shoe him. "The day after Sullivan's half hour lecture (observes the writer) I went, not without a degree of incredulity, to the smith's shop, with many other curious spectators, where we witnessed the complete success of his art. This had been a troop horse; and it was supposed, not without reason, that after regimental discipline had failed, no other method would be found availing. I observed that the animal seemed afraid whenever Sullivan spoke to, or even looked at, him."

If no charm could be found for the vicious stallions of Mr. Bakewell, every precaution was adopted to prevent the effect of their violent and savage dispositions: they were led in halters so formed, that if they attempted to bite the person leading them, he had only to hold the end tight, and they could not open their mouths.

Mr. Hood of Packington (Leicestershire) was in the possession of a stallion of the Dishley breed, which became very celebrated for the superiority of his stock; but he also became so unmanageable and so dangerous, that his eyes were either purposely put out, or he lost the sight of them in his mischievous struggles with his grooms or attendants. Even in this state, it was highly dangerous to approach him: he lived till he was eighteen years old, and continued as vicious as possible to the last.

However, notwithstanding the fame which the Leicestershire improved breed of Black or Cart Horses acquired, in the course of some years it was found that in the ardour of improvement, bulk had been increased at the expense of activity, and that the very large Flemish horse, which, by English management, had attained an enormous size, was slow, if not sluggish, in his movements or action, and not half so well calculated for the general purposes of husbandry, and the use of the farmer, as a more clean limbed and more active, yet equally strong animal, of which our embellishment presents a beautiful, if not an inimitable, sample. The very heavy and very

hairy legged Dishley or Leicestershire horse will be found, on examination, defective in the metacarpel bone, or rather those bones which form the foundation of the limb between the knee and the fetlock: they consist of three; one large before, called the *cannon* or *shank* bone, and two smaller behind, called *splint* or *splent* bones. These bones were found too small; and certainly the thinness of the leg, or rather perhaps its circumference in these huge horses, would not fail very much to surprise that person who for the first time made himself acquainted with the fact. It is said, and truly too, that tendon contributes more to strength that bone; but, inasmuch as bone forms, as it were, the hold and basis of tendon, the size of each will generally be found in corresponding unison; so that where the bone is slight, a very large development of tendon cannot be expected. In order to improve the action of the heavy Leicestershire horse, as well as to remedy the defect in question as far as possible, the Cleveland Bay, it seems, was resorted to; and as the latter possesses about one fourth genuine Eastern blood, so, what may be called the improvement upon the Leicestershire improved cart horse, is not altogether destitute of breeding, or relationship to the thorough-bred horse. Of this improvement we present our readers in the accompanying embellishment, with perhaps the most beautiful and the most perfect specimen which the kingdom affords. The artist was eminently successful in transferring his likeness to canvas, which has been very faithfully traced by the burine; so that, as we thus place an undoubted, vigorous, and almost living portrait before the eye of the reader, we will leave him to form his own opinion. He gained the prizes as the best Cart Stallion at the East Riding Agricultural Association on Wednesday July 27 of the present year.

TRUE BRITON JACK'S ALIVE is the property of Mr. Matthew Northgraves of Sutton, near Hull; he was got by this gentleman's Jack's Alive, but bred by Mr. D. Robinson of Hessle, near Hull, out of a black stout mare got by Mr. J. Wells's Old Jacob. He is seven years old, sixteen hands one inch high.

The Flemish or very heavy hairy legged Leicestershire horse, is best calculated for the brewer's dray, where the journies are generally short, the pace slow, and a large horse necessary from the form and size of the vehicle employed, as well as from the nature of the employment.

The following extraordinary feat of a draft horse has been recorded. Soon after the completion of the Surrey Iron Railway, and when it was open for the conveyance of goods from Wandsworth to Mertsam, a bet was made, that a common horse could draw thirty-six tons for six miles along this road, and that he should commence his labour with a dead pull, as well as turn it round the occasional windings of the road. A number of persons assembled near Mertsam to witness the performance. Twelve waggons loaded with stones, each waggon weighing three tons, were linked together, and a horse, taken from the timber team of Mr. Harwood, was hooked to the first waggon. He started from near the Fox public house, and drew this immense weight with apparent ease, to near the turnpike at Croydon, a distance of six miles, in one hour and forty-one minutes. In the course of his journey, he was stopp'd four times, in order to show that it was not by the acquired impetus that he performed the task. After each stoppage, a chain of four waggons was added to the train, with which the same horse set off again without difficulty, even after about fifty men had mounted the them.

A cart horse belonging to Mr. Leggat of Gallowgate street, Glasgow, had been several times afflicted with botts, and as often cured by Mr. Downie, farrier at that place. He had not, however, been troubled with the disease for a considerable time; but, on a recurrence of it, he happened to be employed one morning in College street, a distance of nearly a mile from Mr. Downie's workshop. Arranged in a row with other horses engaged in the same work, while the carters were absent, he left the place, and unattended by any driver, went down the High street, along Gallowgate street, and up a narrow lane, where he stopped at the farrier's door. As neither Mr. Leggat nor any other person, appeared with the horse, it was conjectured that he had been again attacked with his old complaint. Being unyoked, he lay down, and shewed, by every means of which he was capable, that he stood in need of Mr. Downie's assistance; and while this gentleman was in the act of administering the requisite antidote, the carter arrived in search of him.

In the spring of 1829, at the time a farm servant was engaged in harrowing, a relative who had been long abroad, serving as a serjeant in the army, returned home, his purse being well stored with cash. During his stay in the neighbourhood, he frequently regaled his old acquaintances, and seldom failed to send them home in a state of the most happy oblivious feeling imaginable. John, our hero, who had the care of a pair of beautiful Clydesdale horses, on returning home one evening, went as usual, to water and supper his horses. For the former purpose, he was in the habit of letting them loose, when they went by themselves to an adjoining stream, and, after quenching their thirst, returned to the stable, while John stood at the door to receive them. On the evening in question, John had forgot to tie them up, and shut the stable door. The dissipation of the previous night had given him a *sair head*, so that he could not get up till half past seven, two hours later than his usual time. On reaching the stable, he found the door open, one of the horses gone, and the other standing loose in his stall. In vain the man looked for the absent horse, till at length he met a boy, who upon enquiry, informed him, that at half past seven o'clock, he saw one without a halter or attendant, going into a certain field. The man hastened to the place, and found the animal standing by the harrows, where he had unyoked him the previous evening.

In the year 1828, Mr. Maclaren a farmer of Balthaly, was in the possession of a horse which had attained the great age of thirty-eight years, and which continued strong and active. He was four years old when he was purchased by Mr. Maclaren, so that, at this period, he had acted the part of a faithful servant for thirty-four years. He could still masticate his corn without difficulty, was in good working condition, and seemed to retain his sight unimpaired. As a proof of his strength and activity, it may be mentioned, that Mr. Maclaren's farm contains one hundred and twenty acres, the ploughing on which in 1827, was performed by his old favourite and another horse, without further assistance. However, it rarely happens that horses of the cart kind are fit for much work after having completed their twentieth year.

**OLD OAK.**—A large oak in the forest of Cerisy, known under the name of the Queneze, at a little distance to the right of the great road to St. Lo, is supposed, by comparing various data, to be eight or nine hundred years old. In 1824 it measured 36 feet in circumference just above the soil, and was about 55 feet high. The trunk is now hollow, and will hold from 14 to 15 persons.

## CASTRATION.

BY PROFESSOR VATEL, ALFORT.

### THE ACCIDENTS THAT MAY FOLLOW CASTRATION.

These are swelling of the sheath or the scrotum, or the spermatic cord, gangrene, hemorrhage, tetanus, hernia, and peritonitis.

**1 SWELLING OF THE SHEATH AND SCROTUM.**—These most frequently occur, and are most serious in young horses that have not yet had strangles, or that are about to have it. When it happens, yet in a slight degree, and affects only the sheath, it needs not to be regarded; for it will usually disappear about the fifth, sixth, or eighth day, and frequently sooner. Exercise is very useful in dispersing it. When, however, it is more considerable, and by a species of phymosis prevents the animal from protruding his penis; when he walks with some stiffness; and the perineum and the scrotum are distended; recourse must be had to fomentations, emollient lotions, and scarification. If the pulse is hard and accelerated, the animal should be bled, and cooling drinks and emollient injections administered.

The treatment is the same when the enlargement spreads under the belly, and there is oedema accompanied by some degree of heat. It is often useful to clean the inside of the sheath, in order to prevent the accumulation of sebaceous matter.

When this enlargement is complicated with a similar one of the spermatic cords, it is frequently dangerous. When it passes into a gangrenous state, or is accompanied by peritonitis, it is generally fatal. In the latter case the animal frequently dies at the very moment that we are beginning to think him out of danger.

**2 SWELLING OF THE SPERMATIC CORD.**—This is usually more dangerous than the preceding affection. It generally appears between the fourth and eighth days after castration. The horse betrays a stiffness of the leg on the same side as the swelling. This is easily perceived when he is going out of the stable, and it does not disappear after some minutes exercise. The animal to a greater or less degree drags the limb after him, and the back and loins are bowed on that side. When both the cords are enlarged, and inflamed, the horse walks wide behind, and the lumber region is stiff and depressed. The animal finches if the cords are in the slightest degree pressed upon, and there is more or less heat at that part.

When there is inflammation of the cord, but without any fungus growth, it will sometimes terminate in resolution, especially if emollient cataplasms are applied to the lumber region, and fomentations of the same kind to the affected parts, and emollient injections, and restricted diet, and bleeding, and little exercise; but, generally, abscess and scirrhus of the cord result.

The abscess resulting from inflammatory engorgement of the cord ordinarily appears at the groin. It is brought to maturity by applications of the ung. populeum\*; as soon as there is any fluctuation the abscess is opened, and the wound dressed with dry tow.

Swelling of the cord is often accompanied by a fungus growth at its inferior extremity, assuming

\* Made of the leaves of white poppy, belladonna, black hellebore, and black nightshade, with the buds of the black poplar boiled in lard—a favourite ointment with the French, and said to be emollient and narcotic.

somewhat the form of a mushroom, and thence deriving its name *champignon*. This enlargement sometimes appears when the wound in the scrotum is partly cicatrized, and it often adheres to the borders of the wound. There runs from the little opening which then remains, a glairy, ropy discharge, which sticks to the internal surface of the corresponding thigh. The size of this fungus varies considerably in different cases. Those enlargements which have a narrow base, and are almost hidden in the wound made in the act of castration, are the least dangerous; others with a wide base, voluminous, and complicated with scirrhus engorgement of the cord, whether at the ring alone, or penetrating into the abdomen, are attended by more serious consequences.

The small fungus growths often disperse without any other care than that which is bestowed on the subduing of the inflammatory swelling of the cord by which they are accompanied. When they are the size of a hen or duck's egg, and have a somewhat smaller pedicle, and protrude through the edges of the wound, and the cord is only a little engorged, it is easy to amputate them. For this purpose the animal must be secured as for castration: the wound must be slightly enlarged, in order that the fungus may be brought down; a hollow clam, into which a little corrosive sublimate has been put, must be fastened round the root: and on the second or third day the clam may be removed, and the fungus cut away without any danger of hemorrhage.

The ligature is sometimes used in these cases with considerable success, and especially when the fungus is large, and when it is accompanied by swelling of a portion of the cord itself, which will not permit the application of the clam sufficiently low, or which prevents the remaining portion of the cord from being handled. When the ligature is resorted to, the horse must be thrown as for the application of the clam—the tumour brought out and exposed—and then a waxed twine must be passed round the cord, above the substance of the fungus, and sufficiently tight to interrupt the circulation. A second piece of twine should be placed above this, and secured with the knot used in bleeding. The ends of the cord must be so contrived as to be near each other, in order to be twisted when the suppuration is established, or the operator wishes to procure the fall of the tumour. Some veterinarians attach a ring of lead to their ligature, by means of which they can twist it tighter every day.

The inflammatory swelling of the cord often terminates in scirrhus. This seldom exists alone, but is almost always accompanied by the fungus growths just spoken of. It is on this account that both of these states of the cord are confounded under the name of *champignon*. In this case the tumefaction extends along the cord as high as the sub-lumbar region, which may be ascertained by raking the horse. The cord becomes hard—it increases in size—it contracts adhesions with the neighbouring parts—and sometimes forms a cancerous mass from the original wound unto the sub-lumbar region. The vessels likewise become inflamed, and increase in volume. At length the cord begins to soften at different points of its extent. The animal evidently suffers a great deal of pain—he is continually standing—the lameness increases day by day—the flank is drawn up and corded—the discharge from the part increases the irritation—the horse falls rapidly away, and a continued fever conducts him to marasmus and death.

In robust and healthy horses, enlargements of a *scirrhus appearance* sometimes are found, which disappear in process of time (from six to twelve months) by means of an abundant suppuration. This favourable termination is announced by the discharge of healthy pus, and by the slow and progressive diminution of the symptoms, and of the pain. The application of the populeum ointment, emollient lotions, and gentle exercise will be favourable to this termination of the case. But it is not always that the practitioner must dare to hope for such a result; and it will be his duty, especially when the tumefaction is increasing, to remove the engorged part of the cord, by ligature, before it reaches the abdomen; for if he cannot divide the cord at the abdominal ring on a part as yet sound,—if he can only place his ligature on a substance which already is scirrhus, the disease will most rapidly spread upwards, and destroy the patient.

The animal must here also be cast. The attachments of the cord to the surrounding parts must be cut, or rather torn, as perfectly as may be without injuring the principal vessels; and then a ligature must be tied above, on a part of the cord which is evidently sound. When the scirrhus reaches the abdomen, the ligature will be altogether insufficient, and, as a last resource, the cord must be cauterized as deeply as possible. In order to effect this, the cord must be detached, as perfectly as may be, from the surrounding parts—it must be cut into inferiorly—the lips of the wound must be separated as much as possible, and then an iron, heated red hot, in the form of a sound, and sufficiently long, and as large as a finger, must be thrust up into the scirrhus substance, following carefully the direction of that substance. The suppuration which necessarily results from such an operation will sometimes *melt down* the enlargement.

## CATARACT APPEARING WITHOUT APPARENT INFLAMMATION.

(From the Veterinarian.)

On the 22nd of April, 1836, Mr. Etches of Broughall, sent for me to look at the hock of a horse that he thought was larger than what it ought to be. He had purchased the horse from a Mr. John Jones, of Llandysill, a farmer near Welchpool, who had bred him: he was five years old. I told Mr. Etches the enlargement of the hock was of no consequence. I then examined him all over, and found that he had a cataract in the off eye, at its outer angle, the size of a large coriander seed. The eye was perfectly transparent, with the above exception showed no vestige of previous inflammation, and there had not been any thing the matter with it whilst in the possession of Mr. Etches, which had been about a month. Mr. Jones was applied to respecting it, who said he bred the horse, and never knew either of the eyes to be the least inflamed or injured. It was agreed to leave it solely to two friends who knew each party well, and who decided that Mr. Jones should refund five pounds. Now, I am perfectly aware that there is great difficulty in deciding when or how this cataract was formed, and whether it was preceded by inflammation. That there was no apparent inflammation set up in the eye whilst Mr. E. had him I firmly believe; for he is a very particular gentleman, and is continually among his horses. On the other hand, it is asserted that there was none while in

the breeder's hands ; but then we all must admit the *possibility* of the horse having had some injury to, or inflammation in the eye, during the long period that he was in the breeder's possession, although not observed. That there could not have been, nor indeed is it necessary, repeated violent inflammation in the parts, we may easily believe, for there would have been disorganization or discoloration of the internal parts. Suppose the vender, in this case, would not have taken the horse back, nor have allowed any thing, would it have been possible to have recovered any thing from him by law ? I think not. The vender would have proved that there was nothing the matter (at least witnesses would have been brought forward to swear it) with his eyes up to the time of sale ; and who would there be to prove, on the opposite side, that it could not have occurred whilst in the purchaser's hands ? I would not, I am sure ; and, I fancy, few veterinary surgeons would be found to swear that the cataract was formed previous to the sale, after what has recently been brought forward on the subject. The case *Roberts v. Croft* was decided otherwise ; but would a similar one be so now ? It is, at any rate, a case which shows the absolute necessity for every purchaser to have his horses examined immediately after purchase, and which ought always to be done independent of this point.

I should be glad if Mr. Davies or Mr. Gwynn, veterinary surgeons of Welchpool, would slightly try to ascertain a little more respecting this case, as it is in their neighbourhood, and communicate it either to you or to me, as I am as desirous as any one to come at the truth of similar cases.

## ON CROSSING BREEDS OF CATTLE.

By MR. JAMES DICKSON, CATTLE-DEALER,  
EDINBURGH.

(From the *Quarterly Journal of Agriculture*.)

The chief object of breeding cattle is the acquisition of profit. The raising of them is an art ; and, like all the other arts, it is attended with labour of mind and body. The purchasing of breeding stock at the outset, and of collecting them together from different breeding districts, to one farm ; of rearing the young stock from the period of their birth to maturity ; and of disposing the surplus stock at markets, is a labour attended with considerable outlay of capital and exertion of body and mind, and no one unacquainted with all the minute details necessary to be observed in the breeding and rearing of cattle can conceive the peculiar labour of conducting this department of farm management. But the anxiety of the mind is protracted beyond the labour of the body, partly from the uncertainty whether the progeny of the purchased parents may turn out to expectation, and whether the return from the outlay of a considerable sum for at least two or three years may be equivalent to the risk, and partly from daily solicitude accompanying the progress of the young stock towards maturity, whether awakened by the risk of death or the apprehension of receiving a remunerating price for stock, upon which the breeder is conscious he has bestowed every care and attention to bring them to perfection. Were it not that the anticipation of success inspires him with hope, no man would undertake the toil of rearing live stock ; but the assurance that his efforts will place a fine stock in his possession if he pursue a proper

course of breeding, and which will remunerate him in the end, supports and encourages him to perseverance. If this assurance is well founded, which I maintain it is, the profit of the breeder will be greater or less according to the means which the breeder employs in obtaining it. If he cultivate ordinary stock, that which may come first to his hand, his profit will certainly be small, for no breeder has a right to expect great remuneration who gives himself little trouble in rearing his stock. If, on the contrary, he select his breeding stock with care and judgment, he will certainly be recompensed for his trouble. Whether, therefore, the breeder derives a larger or a smaller profit from his stock depends on his own exertions. But the breeder must not only use exertion, it is obviously his interest to secure the largest profit with the least labour. In aiming at this high accomplishment, he must select his breeding stock by which it is to be secured with much discrimination. The materials are always within his reach, he must select them with judgment. There is great difficulty, it is true, in choosing properly, but he will prove himself the most successful breeder who can select with the most correct judgment. A thorough knowledge of rearing stock is a pre-requisite, and it can only be acquired by observing, in the first instance, the operations of other breeders, and being familiarized in it by studying the nature of all the domesticated animals.

These are the principles which should guide the breeder in the rearing and cultivation of his stock. The adoption of an opposite procedure will inevitably lead him to disappointment and failure, because, being opposed to common sense, and the method which Nature adopts in regulating the increase of the animal creation, it must necessarily fail. The practice of the experienced man is a tolerably safe guide in regulating that of a beginner ; but were he merely to imitate the practice of man, his own could never rise above the standard followed. Now, Nature is a superior teacher to man, and she never fails in her object. The fruits, and flowers, and animals of her creation, are the most perfect of their kind. To follow her practice, therefore, is true wisdom. Now, the progressive variety of the domesticated animals shows that their condition may be improved, whilst their kind is preserved pure. The state and kind of wild animals is always uniform, but that of the domesticated varies, and yet the kind of the latter is always as fixed as that of the wild animals. What, then, constitutes the whole difference between the wild and domesticated animals is, that the former remains unchanged in every respect, whilst the latter remains unchanged in that respect which preserves their distinctive characters, and yet their condition may vary, to suit the wants and tastes of man.\*

\* The uniform external characters and habits of wild animals, the tendency to deviation in the external characters and habits of domesticated animals, and the failure which has attended every attempt to domesticate any wild animal, are circumstances which have led some to the belief that the races of domesticated animals were never wild. I confess I am strongly inclined to adopt this opinion. In the first place, I see no evidence of a greater number of kinds of domesticated animals now in the world, than have been from the earliest period of history ; and, in the next place, there have always existed as many kinds of domesticated animals as have been useful to man in his most civilized state. As the civilization of man increased, so have the variety and quality of domesticated animals increased, but the number of their kinds have not increased. There



The securing of the greatest profit in breeding with the least labour, consists in procuring that breed which will attain the greatest weight and maturity in the shortest time, and on the least quantity of food. On observing the progress of different individuals of the same breed of cattle, every breeder may have noticed that some individuals fatten quicker than others under the same treatment; and were the cattle of different breeds, the difference in the progress of the fatness would probably be the more striking. Results so obvious cannot fail to rouse the inquiries of the breeder. How is it that animals of different breeds, or individuals of the same breed, fatten faster than others? They all receive the same attention and care, food, and comfort. On inspecting the subject more closely, the breeder discovers that those animals which improve fastest, are the most beautiful to appearance, and most handsomely formed. Out of regard for them, he has a desire to handle and fondle them, when he makes a new discovery. He finds that their skins feel agreeable to the touch, are loose, and easily laid hold of. Their bodies are soft and fat, and he can press his fingers into their flesh, which springs back again in an elastic manner. He can also ascertain the same properties in the parents of the respective cattle which have thus exhibited them, and when he has made this observation, he has made another discovery. He thereby learns, that cattle possessing certain good and useful properties, have the power of imparting them to their progeny. He becomes convinced that good properties are hereditary, and, by a parity of reasoning and observation, he concludes that bad properties are also hereditary. He therefore retains the breeding stock which possesses the good properties, and disposes of the rest which possesses the bad, and fills up their place with animals possessing properties similar to the first. His mind having thus been awakened to the proper course to be pursued in breeding, he perseveres in the selection of the best

were horses, asses, camels, dogs, cattle, sheep, and goats in the days of Abraham, as well as now, and these constitute the largest proportion of our domesticated animals. Many attempts have been successfully made to tame single individuals of wild races, but such animals, though tamed, are in quite a different state from our domesticated animals. Some wild animals exhibit a great degree of familiarity. The swallow builds her nest in our windows, and the robin enters our dwellings; whilst the blackbird and sparrow are constantly before us. This familiarity, however, does not amount even to tameness, far less to domestication. It appears to me, that wild animals are preserved unchanged, for the great purposes of providence throughout the globe, and that Nature has presented to man only such animals as are obviously most suitable to his wants. With these he must be satisfied. What wild creature would we desire to substitute for any one of the domesticated animals? Should we desire it, Nature has placed such a barrier in our way, that it is impossible for us to make a single wild creature available to our domestic purposes. We may exercise our ingenuity, judgment, and even caprice, in moulding the habits and qualities of domesticated animals to our tastes, wants, and conveniences. There the field of experiment is open to us, not to an unlimited, but to a great extent; but Nature will not permit us to make a single predatory incursion among her wild animals. She "careth for them" in an especial manner.

animals, and, in the course of time, his experience and taste correct the defects which may exist even in the minuter properties of his animals. Some of these minute defects may not exhibit themselves for some time, even for years; but when they do appear, the animals having them are removed, and those only cherished which have preserved all the good properties to the latest period.

Having thus procured that breed which attains the greatest weight and maturity in the shortest time, and on the least quantity of food, not absolutely, but relatively to other breeds (for it is perhaps not in the power of man to fashion an absolutely perfect breed of cattle, which these qualifications would indicate) the breeder's next consideration is how he is to preserve the good properties which have been acquired in his cattle. This consideration will be early impressed upon him, for he knows that the possession of any good thing is but a fleeting acquisition; for he sees that others more than he cannot retain a good thing permanently, for every thing becomes the more evanescent the purer it is. He finds this to be true in regard to cattle. The good properties gradually disappear, one after another. The more minute properties disappear first, as it were stealthily, before he is aware of their disappearance. He finds, to his amazement and embarrassment, that his cattle are undergoing an evident change for the worse. They are becoming smaller, they are more tender, more easily hurt by change of food and weather; they show symptoms of internal disease, and some even die in spite of his attempts to preserve them. He becomes alarmed, he ascribes the change perhaps to some temporary change in the atmosphere, to some epidemic, which will pass away with the season; and, at all events, he cannot ascribe to mismanagement on his part, as a cause of the disheartening change. He is not conscious of having deviated from the exact line of conduct which has hitherto led him to prosperity and fame. He finds himself in a dilemma. If he continues as he has latterly proceeded in his method of breeding, he fears that the value of the cattle, upon which he has bestowed so much care, and of whose beautiful appearance he is justly proud, will decline every year. It is no easy matter for a breeder to extricate himself out of such a difficulty. The many conjectures which he forms to account for the unfortunate change, the epidemic among the rest, have now lost his confidence, and he begins to distrust his later management, and attempts to discover an error of judgment or of practice. But although an error of judgment or of practice had produced the effects, its immediate connexion with them may not be very apparent; and, at all events, he is reluctant to acknowledge that it is easy to account for so great a change as has taken place in his stock. He cannot conceive that a pursuance of the same plan which has perfected his animals, can at any time be detrimental to them. He resolves, however, to proceed in future with circumspection. The first precaution which he uses, is to change his breeding stock, in that line whose progeny have shown the greatest change. He purchases a bull from the best breeder in the country. This is at least a safe step. On comparison, his eyes are opened to the lamentable fact, that his present favourite bull, which has procured him his stock, is not so perfect as other peoples', nor what he has before had: he is fat enough, but seems bound together, and is small. He resolves that he shall serve no more of his own cows, but he puts him to a cow which he has bought, in order to mark the results of the double change which he is about to effect by introducing a fresh

bull and a fresh cow into his stock. The results prove better than his expectations. He tried the experiments in doubt, but he exults in the results, because he is in the way of regaining his lost stock. The fresh breed exhibits the size, strength, hardiness, all the good qualities of his best animals. He now sees the necessity of changing, at intervals, the blood in breeding cattle, in order to maintain them in that high and palmy state, which imparts the greatest pleasure and profit to the breeder. He is convinced that without a change of blood in its constitution, or, in other words, without *crossing*, no breed of cattle can maintain its health and usefulness.

Convinced though he be of this position in regard to crossing in the same breed, still he naturally asks himself, Will any kind of crossing produce similarly favourable results? Were any bull or cow used, would their progeny be as perfect as that of the crosses which he has just tried? No reasoning can satisfy any man in the matter; experiment alone must answer those questions. But having already made experiments and succeeded, he may try others. He buys a bull of any breed different from his own. He puts him to one of his best cows. The result proves almost a failure. The progeny is no doubt strong and hardy, but it is coarse, and by no means an improvement on his own breed. Such an experiment shows him that he should not rely for improvement in a confessedly inferior bull. He then finds, that the crossing of breeds must not be conducted in an indiscriminate manner, that a superior bull is necessary, and that a superior cow cannot secure him against disappointment when coupled with an inferior bull.

He will try another experiment, the converse of the last. He now buys a cow of a different breed from his own, and puts his best bull to her. The result is much superior to the last experiment. The progeny is not so fine as his own pure breed, but it is superior to its mother. It proves a rapid grower, kind feeder, has a good figure, and hardy constitution. He is encouraged to proceed a little farther. He puts a *fine bull to a cow of this cross*. He is still not disappointed; the progeny is still not so fine as his own pure breed, but it approaches nearer in similarity to it than the first cross; and proceeding in this manner for generations, he ultimately finds that the *coarse breed merges into his own*. As he is still in the field of experiment, he tries the effect of a bull of a different breed from his own with a cow which is a cross between a coarse cow and a fine bull of his own. Instead of the cross improving as it did with the fine bull, it is decidedly worse than its sire. He receives no encouragement to proceed in this direction. These latter experiments prove to him, that, were it possible, from the course of events, that no superior cow could be obtained, a superior bull would in time raise a stock similar to himself from a cow of a different breed; and that this cross should either remain as it is, because it is certainly a good cross, or it will merge, by means of a superior bull, into his own pure breed; but that by an inferior bull the cross degenerates at once.

I have thus endeavoured to trace, by the supposititious case of a breeder, the natural progress of breeding; and I have farther carried the supposition to the extent that the same breeder had experienced all the changes incidental towards the acquirement of a perfect breed, in order not to break the regular and necessary connexion in the progress towards perfection. This supposition has served to simplify the description of the proper process of breeding; but it must not to be taken for granted, that breeding

up to the attainment of a perfect breed is really a simple matter. It is only possible for any man in a long lifetime to acquire all the experience which the above supposition exhibits. One man's experience is generally limited to a few circumstances; but he must observe the operations of others, and profit by them as well as his own. In this manner, the results of the experience of many breeders are introduced into the above supposition. It is therefore not imaginative, but a view of the actual progress of particular breeds. For instance, the breed which is represented as having been brought to the highest degree of perfection, is the short-horned; and its degeneracy is indicated by pursuing the breeding too near akin. Its recovery is ascribed to an intermixture of the same kind of blood, derived from a different source; and this process is recommended to be occasionally resorted to, in order to preserve the tone of breeding in vigour. Hence crossing is recommended to preserve the purity of blood; because this intermixture of the same bloods is nothing more nor less than crossing; but crossing of any kind must be conducted on judicious principles, and not at random. It will not conduce to improvement to cross a fine short-horn cow with a bull of inferior breed; for we have seen by the supposition, that the progeny could only be superior to the male, but inferior to the female parent. On the other hand, a short-horn bull will improve the progeny of any other breed. Why that should be the case, it is impossible to explain. It probably arises from the high tone of blood which the short-horns possess, but how this high tone of blood in them operates as an improver of the qualities of other cattle, I pretend not to explain. The explanation must be left to physiologists. It is sufficient for all practical purposes, that the case is as I have stated; for knowing the fact, the breeder possesses all that is requisite for the improvement of any breed in the country. This property of the short-horn bull I conceive to be an invaluable one, as we shall have occasion to see in the sequel.

#### EAST RIDING AGRICULTURAL ASSOCIATION.

The Third Annual Show of the East Riding Agricultural Association took place at Beverley, on Wednesday, July 27. The meeting of the Association was held at nine o'clock in the morning, at the East Riding Sessions House, when the ordinary business was transacted. The members then proceeded to the election of a president and vice-president for the ensuing three years, (in the place of Richard Bethell, Esq., M.P. and the Rev. W. R. Gilby, whose term of service was expired), when the Hon. Chas. Langdale was chosen president, and Robt. Dennison, Esq. of Kilwick Percy, vice-president.

The field which was appropriated to the reception of the stock at the last meeting, was again put in requisition on this occasion. Portions of ground, suitable for the accommodation of each different species of stock, were fenced off in the same manner as at the last show, and large placards announced the description of animals, cart-horses, roadsters, hunters, &c., contained within each enclosure. There were placed on the ground, for the inspection of the visitors, a number of agricultural implements, — threshing-machines, ploughs, harrows, &c., of an improved construction, manufactured by Mr. Crosskill, of Beverley, and Mr. Dale, of Bridlington.

The judges who awarded the prizes to the competitors were:—Mr. Edward Baxter, of Burton Pidsea; Mr. John Johnson, of Cayton Carr; Mr. John Taylor, of Burnham, near Barton; Mr. Phillips, of Helmsley; Mr. C. Angus, Neswick; and Mr. George Wood, of South Dalton.

The show of stock, in regard to the breed and condition of the animals was most splendid. It was stated by the judges, that in their opinion so good a collection of animals was never shown. The show of tups and sheep, it was stated, far exceeded that of last year. The only deficiency mentioned was in the three-year-old coaching colts; only one was shown, and the prize was of course awarded to it.

In the course of the day we observed upon the ground a number of the principal geatry of the riding. Visitors were admitted into the field on payment of one shilling each, and throughout the time the stock was exhibited the ground was thronged. We were informed that the sum taken at the gate during the day was upwards of 130*l*, so that the number of persons who visited the "show" was about 2,600.

The following is a list of the number of the respective descriptions of stock which were exhibited on the ground:—

Bulls of any age from any part of the kingdom, 10; bulls aged, 9; bulls yearling, 7; cows, 15; heifers, 2 yrs old, 9; heifers, yearling, 4; tups any age, 15; tups aged, 11; shearing tups, 18; ewes breeding, 4 pens; shearing wethers, 1 pen; shearing gimmers, 4 pens; coaching mares, 27; hunting mares, 10; roadster mares, 15; cart mares, 14; boars, 6; sows, 10; coaching colts, 3 yrs old, 3; coaching colts, 2 yrs old, 7; yearling coaching colts, 5; coaching fillies, 3 yrs old, 9; hunting colts, 3 yrs old, 1; coaching stallions, 19; hunting stallions, 3; roadster stallions, 5; cart stallions, 8; yearling stallion colts by Merrylegs, 6; foals by Commodore, 9.

The following are the premiums awarded by the judges to the successful competitors:—

	£. s. d.
To the Labourer in Husbandry (who has no occupied more than half an acre of land) who has brought up and placed out to service the greatest number of children, without receiving parochial relief:—Alexander Kiddey, 14 children.—34 years in the service of R. Dennison, of Kilwick Percy.....	5 0 0
The Second ditto—Charles Foster, of Tibthorpe, 12 children. ....	1 0 0
To the Servants in Husbandry, being unmarried persons, will be extended to those who have lived in several places, provided they have lived not less than four years in each service; to produce certificates from their masters or families; or, in case of their death or removal, from two respectable persons of each service—John Petty, 14 years in the service of Lawrence Stephenson, of Eske.....	4 0 0
The Second ditto—No competition.....	3 0 0
The Third ditto— Ditto.....	2 0 0
The Fourth ditto— Ditto.....	1 0 0
To the Female Servant who has lived the longest time in service, of not less than four years in each service, with a good character,—Hannah Wilson, 18 years in the service of Lord Hotham.....	3 0 0
The Second ditto—No competition.....	1 0 0

	£ s. d.
To the Female Servant who has lived the longest time in farming service, of not less than four years in each service, with a good character—Ellen Linton, 45 years in the service of Mr. T. Moody, of Holme-upon-Spalding-Moor.....	3 0 0
The Second ditto (not living in service as house-keeper)—No competition.....	2 0 0
The Third ditto— Ditto.....	1 0 0
To the shepherd who has reared the greatest proportionate number of Lambs, from not less than 100 ewes—William Witty, 182 Lambs from 110 ewes, belonging to Mrs. Whiting, of Leven.....	3 0 0
The Shepherd who has lived the longest time in one service—William Withill, 33 years shepherd to Sarah Clark, of Goodmanham.....	3 0 0
Best Bull, of any age, from any part of the kingdom,—To Mr. R. Iveson, of Hedon.....	10 0 0
Best two-year old or aged Bull—Ditto..	5 0 0
Best yearling Bull—To Mr. Robinson, of Carnaby.....	3 0 0
Best Cow in milk, or in a breeding state—To Mr. Edwards, of Market Weighton.....	5 0 0
Second Best—Ditto.....	3 0 0
Best two-year old Heifer—To R. F. Shawe, Esq. of Brantinghamthorpe.....	3 0 0
Best Yearling Heifer—Ditto.....	3 0 0
Best Tup, of any age, from any part of the kingdom, (5 <i>l</i> by the Association, and 5 <i>l</i> added by Yarburgh Greame, Esq. of Sewerby)—To J. Greame, Esq. of Sewerby.....	10 0 0
Best aged Tup—Ditto.....	5 0 0
Best Shearing Tup—To Mr. Edwards, of Market Weighton.....	5 0 0
Best pen of five Breeding Ewes—To Mr. Dawson, of Sewerby.....	3 0 0
Second best ditto—To Mr. Edwards, of Market Weighton.....	1 0 0
Best pen of five Shearing Wethers—To Mr. Lowish.....	3 0 0
Best pen of five Shearing Gimmers,—To Mr. Kemp, of Hempholme.....	3 0 0
Second best ditto—To Mr. Edwards, of Market Weighton.....	2 0 0
Best Coaching Mare—To Mr. Richard Stephenson, of Hollym.....	5 0 0
Second best ditto—To R. Denison, Esq. of Kilwick Percy.....	2 0 0
Best Mare for breeding Hunters—To Mr. Thomas Jackson, of Barmby-Moor....	5 0 0
Second best ditto—To Mr. J. Witty, Middleton.....	2 0 0
Best Mare for breeding Roadsters—To Mr. Lee, of Gardham.....	5 0 0
Second best—To Rev. F. Best, of South-Dalton.....	2 0 0
Best Cart Mare—To Mr. W. Butterill... ..	3 0 0
Second best ditto—To Mr. John Foster, of Gauton.....	2 0 0
Best Boar—To Mr. David Dickinson, of Patrington.....	2 0 0
Second best ditto—To Daniel Sykes, Esq. ....	1 0 0
Best Sow—To Mr. David Dickinson....	2 0 0
Second best ditto—To Mr. James Stephenson, of Arras.....	1 0 0
Best three-year old Coaching Colt—To Penrose, of Gribthorpe.....	3 0 0
Best two-year old ditto—To Mr. Wm. Watson.....	3 0 0

	£	s.	d.
Best yearling Coaching Gelding—To Mr. Robert Danby, of Routh . . . . .	2	0	0
Best three-year old Coaching Filly—To R. Denison, Esq. of Kilnwick Percy . . . . .	3	0	0
Best three-year old Hunting Colt—Ditto. . . . .	3	0	0
Best Stallion for getting Coach Horses—To Mr. Micheal Taylor, of Skerne . . . . .	5	0	0
Best Stallion for getting Hunters—To Messrs. Crump and Lee . . . . .	5	0	0
Best Stallion for getting Roadsters—To Mr. Phillip Ramsdale, of Market Weighton . . . . .	5	0	0
Best Stallion for getting Cart Horses—To Mr. Matthew Northgraves, of Sutton . . . . .	3	0	0
Best yearling Stallion Colt, by Merrylegs, (given by Robert Denison, Esq. of Kilnwick Percy)—To Mr. Joseph Hudson, of Hemsley . . . . .	5	0	0
Best foal by Commodore, (given by Mr. Witty, of Lund)—To Mr. Thomas Clark, of Watton . . . . .	1	0	0
Second best (given by Mr. George Witty, of Lund)—To Mr. Brandham, of Weel . . . . .	0	10	0

## SWEEPSTAKES.

Best Bull, 2 subscribers at 10s each—To Mr. R. Iverson, of Hedon.
Best Cow, 2 subscribers at 10s each—Mr. Edwards of Market-Weighton.
Best yearling Heifer, 3 subscribers at 10s each—R. F. Shawe, Esq. of Brantinghamthorpe.
Best Fat Steer under four years old—No competition.
Best aged Tup—No competition.
Best Shearling Tup, 6 subscribers at 10s each—Mr. Edwards of Market-Weighton.
Best Pen of Five Suckling Ewes—No competition.
Best Pen of Five Shearling Gimmers, for Breeding—No competition.
Best Pen of Five Wethers—No competition.
Best Pen of Five Shearling Wethers—No competition.
Best Boar, 2 subscribers at 10s each—Mr. D. Dickinson, of Patrington.
Best Sow, 4 subscribers at 10s each—Mr. D. Dickinson, of Patrington.
Best two-year old Coaching colt, 3 subscribers at 10s each—Mr. John Swaddle, of Killing-Graves.
Best three-year old Coaching Colt, bred by, or the bona fide property of the shewer twelve calendar months previous to the show; with 10 <i>l</i> added by James Hall, Esq. of Scarborough—No competition.
Best two-year old Coaching Filly, 4 subscribers at 10s each—Mr. William Hood, of Catwick.
Best three-year old Coaching Filly, 3 subscribers at 10s each—R. Dennison, Esq. of Kilnwick Percy.
Best two-year old Hunting Colt, 7 subscribers at 10s each—Mr. G. Scott, of Market-Weighton.
Best three-year old Hunting Colt, 2 subscribers at 10s—R. Dennison, Esq. of Kilnwick Percy.
Best Coaching Mare, 3 subscribers at 10s each—Mr. R. Stephenson, Hollym.
Best Hunting Mare, 3 subscribers at 10s each—Mr. Thomas Jackson, of Barmby-Moor.
Best Mare for Breeding Roadsters, 3 subscribers at 10s each—Mr. Wm. Lee.
Best Cart Mare, 5 subscribers at 10s each—Mr. Simpson, of Walkington.
Best Stallion for getting Coach Horses, 3 subscribers at 10s each—Mr. Michael Taylor, of Skerne.
Best Stallion for getting Hunters—No competition.
Best Stallion for getting Roadsters, 4 subscribers at 10s each—R. Dennison, Esq., Kilnwick Percy.

Best Stallion for getting Cart Horses—No competition.  
 Best Yearling Stallion Coaching Colt, 7 subscribers at 10s each—Mr. Isaac Hairsine, of Holme.  
 Best Yearling Colt by Napoleon le Grand, 3 subscribers of 10s each—with 5*l* added by James Hopkinson, Esq. of Billings-hill—Mr. W. Jackson, of Routh.

## DINNER.

In the afternoon, about four-hundred and fifty gentlemen, consisting principally of farmers, sat down to a cold dinner, at the Assembly Rooms.

RICHARD BETHELL, Esq. M. P. of Rise, the president of the association, occupied the chair, and we observed in the room a number of the leading gentry, magistrates, &c., of the neighbourhood. After the cloth was drawn—

The Chairman gave in succession—

The King.

The Queen.

The Princess Victoria, and the Royal Family.

The CHAIRMAN then said—Gentlemen, I have now the honour to propose to you, “The Agricultural Association of the East Riding of Yorkshire.” I can assure you it is with great satisfaction that I have had an opportunity on this day of meeting so many of you who are so deeply interested in the success of the association around this board. I regret that it has never been in my power to meet you before; but the duties which I have had to perform in the station I have held through your kindness, have hitherto prevented my attendance. (*Cheers.*) I need not say that the exhibition which I have seen this day, must be most gratifying to me, and to the country at large. I think I may say that no district of this kingdom can produce a show of the various descriptions of animals, which have this day signalized the system of breeding in this country, to equal the one which you have this day witnessed. (*Loud Cheers.*) I feel that I should be ill performing my duty to those gentlemen by whom I am surrounded, if I could upon this occasion encourage any feeling of despondency. Gentlemen, difficulties have, and may be felt, in the concerns of the agricultural interests of this country; but whilst I see the exertions which have been made in the stock which has been produced—whilst I see around me the gradual and constant improvements taking place, I will not despond of your interests. (*Cheers.*) There is, gentlemen, that energy and that buoyancy in the character of Englishmen, in whatever concerns they are engaged, which will, I am sure, gather strength even from momentary depression; and I know not why the same may not be predicated of you, who are engaged in so honourable and useful a pursuit as that of agriculture. Intimately associated as I am with the concerns of that interest, you may depend upon it nothing will ever be wanting on my part, which can by possibility promote its prosperity. I am sure I should make a bad claim upon your time, if, upon this occasion, I was to enter upon any long details of the benefits which arise from associations and meetings of this kind. I may be allowed, however, to mention, that nothing can be more desirable than that all the different grades of gentlemen, and of others who are engaged in the concerns of agriculture, should meet together upon those occasions. Such meetings tend to promote a kind, a friendly, and a courteous disposition between all ranks of the people;—(*Cheers*) and I trust that the information which is attained by mutual communication,

and by the opportunity that has been afforded to you this day of seeing such splendid instances of improvements in breeding in all its branches, will tend to the general benefit of the community. (*Cheers*). Perhaps I shall not wander out of the duty which is imposed upon me, if I take this opportunity of stating to you, that—as a law, which I trust will be highly beneficial to the community at large, has at this particular moment been brought under the notice of the country,—I felt it my duty to communicate with gentlemen who reside in districts of the kingdom, where the New Poor Law has been carried into complete execution, who state it is their general opinion that the greatest benefits have arisen from it, (*hear and applause*)—not only as diminishing the weight and amount of their poor-rates; but as having most materially improved the situation of the labouring classes. (*Cheers*) I am certain that no person whom I now see around me, would wish that so useful and meritorious a class of people should suffer for their private emolument—(*loud cheers*).—but I am assured by all who live in districts where the poor laws have been worse carried into effect than in any other part of the country, that the improvement produced has been most striking and beneficial. Fortunately in this county we have never known the existence of the evil, and therefore, I think we are in a peculiarly fortunate situation for the introduction of that law into this county. If it be tried with moderation, with temper, and with care, I have no doubt the same beneficial effects will be felt here. Gentlemen, it is not my intention, nor is it necessary that I should detain you upon this occasion. I am sure you are all deeply sensible of the benefits arising from meetings of this description; and indeed, the continued attendance you have given to-day proves that circumstance much more forcibly than anything I could adduce. I will now give you—

Prosperity and success to the Agricultural Association of the East Riding of Yorkshire. (3 times 3.)

The Hon CHARLES LANGDALE said—Gentlemen, I rise to propose to you a toast, and I do so with the greatest satisfaction to myself, and I am sure it will meet with the unanimous approbation of the present company. I feel a considerable degree of difficulty as to how to express myself with regard to the toast, because I know nothing so difficult as to speak in approbation of any gentleman in the presence of that individual. I am also sure that nothing is so painful to an ingenious mind as to have his public and private virtues brought forward as a subject of panegyric in his presence. (*Cheers*.) But, gentlemen, I feel myself relieved in a very great degree by the conviction that anything I could say would be wholly worse than useless upon the present occasion. I am about to propose to you the health of an individual who needs not any panegyric from me, to secure to the proposition of his health the full approbation of all who are now assembled together. (*Cheers*.) I will only at once say that I am about to propose the health of our president, Richard Bethell, Esq. (*Loud and continued cheers*.) Gentlemen, we all know the variety of different situations which he has filled as a public character. Upon an occasion of this sort it is very properly determined that anything of a political character shall be utterly excluded. (*Loud cheering*.) We are here met—men of all descriptions—men of all parties—Whigs and Tories—Conservatives and Radicals, (*Laughter and applause*),—and, therefore, when I pass over the high situation Mr. Bethell fills as the re-

presentative of the Riding, I do not mean in any way whatsoever on that account to disapprove as a public man of his conduct. (*Hear and cheers*.) I am sure, gentlemen, that in fulfilling the duties of that situation he is actuated by the same disinterested principle, the same high sense of duty—which actuates him in all his other relations of life. (*Cheers*.) Neither, gentlemen, is it my present object to bring him before you in the capacity which he so honourably to himself fulfils, in this immediate neighbourhood, as Chairman of the Quarter Sessions of the East-Riding. Those whose duty brings them into contact with him upon those occasions, feel how highly gratified they are by having such a chairman to assist them. But, gentlemen, on the present occasion it is more in his private individual character as a country gentleman,—it is as the friend of the farmer—as the patron and protector of agriculture,—it is, in fine, as the President of the Association of the East-Riding of Yorkshire, that I now beg you to do honour to this toast. (*Continued cheers*.) Gentlemen, I feel I should show bad taste myself, I feel that I should be doing an injustice to my honourable friend who is beside me—I should be doing an injustice to your feelings—were I to suppose it necessary that I should at any further length dilate upon this subject. I shall therefore no longer trespass upon your attention, but beg you will do honour—that honour which I am sure your feelings will prompt you to do—to the toast I now propose:—

The health of the President of the East-Riding Agricultural Association, Richard Bethell, Esq. (3 times 3, and “one cheer more.”)

Mr. BETHELL, on rising, was greeted with loud applause. He said—Gentlemen, there are moments which I am sure every person who has at all moved in public life must have experienced, when it is most difficult to give vent to the feelings which animate his breast. If ever that occasion has arisen, I am now placed in that situation. My honourable friend who has done me the honour of proposing my health, has accompanied it with remarks which I feel I am very little entitled to. I certainly have felt it my duty, placed in the situation in which I am, to endeavour, to the best of my abilities, to discharge the various duties arising out of it. If I have in any measure been able to fulfil them to the satisfaction of the country, I am amply—and more than amply—recompensed, (*loud cheers*) and I trust, gentlemen, that the expression of your favourable opinion will still encourage me to discharge those duties to the best of my abilities, as long as my health and strength will enable me to do so. (*Cheers*.) I trust, gentlemen, I shall often meet you upon these occasions, and that we shall hereafter have an opportunity of seeing the duties of the situation I now hold much more honourably, and much better, and more ably discharged. (*No*.)

The CHAIRMAN said he had now to propose a toast to which they should all pay due honour;—it was the health of those gentlemen who had on this occasion undertaken the very difficult situation of acting as judges. He trusted and believed they had performed that duty in a manner perfectly satisfactory to every gentleman present. It had been remarked in another place, that there were two classes of persons who were placed in a very invidious situation—the judges, and the successful candidates. He believed, however, from the feelings which prevailed there, that they were not placed in that situation,—that whilst the

were anxious to pay all due honour and respect to the opinion of the judges, those who had been so fortunate as to bear away the honours of the day would be judged by every person to be well deserving them, and he trusted no unkindly or bad feeling would be engendered. He gave—

The health of the Judges, and thanks to them for the manner in which they have discharged the onerous duties imposed upon them.

Mr. TAYLOR, of Burnham, (Lincolnshire,) returned thanks.

Mr. Wood, of North Dalton, proposed—

#### The Unsuccessful Candidates.

The CHAIRMAN said they were obliged to those gentlemen who had sent their stock, and though they had not been successful, it was some honour even "to fall from great attempts."

The Hon. CHAS. LANGDALE said, as an unsuccessful candidate he had to return thanks for the honour done to himself and his colleagues in drinking their health. He could answer for himself—and he thought he might answer for his colleagues—that however happy they might have been to receive the prizes for their different produce, yet they felt no degree of jealousy at seeing the premiums distributed to animals more deserving of approbation. (*Applause.*) For himself he must say, that in bringing animals to the show, it was not so much from a desire to gain the premiums, as from a wish to give animation and spirit to the scene. (*Applause.*) He believed there had been but one opinion as to the impartiality of the judges. (*Applause.*)

J. R. PEASE, Esq., said—Mr. Chairman, with your permission, and that of this company, I beg leave to propose a toast. We have been greatly indebted, while you were absent in London, attending your parliamentary duties, to a gentleman who has more than once fulfilled the duties of president; and I think we should ill discharge our duty, if we did not take this opportunity of returning him publicly our thanks, and drinking his health. I beg to propose—

The health of the Rev. Wm. Gilby (3 times 3.)

The Rev. W. R. GILBY said—Gentlemen, I beg to thank you for the honour you have just done me—it was totally unexpected by me, and it has fallen upon me absolutely like a thunder-clap. I did not think I should be called for an instant from my place on this occasion. I have, it is true, been instrumental in the formation of the society; and delighted I am, when I review the past, to see to what an issue our, at first, feeble efforts, have now come, in the splendid spectacle of the company before us on this occasion. It is very true, gentlemen, that I have felt most deeply for this association, I trust that I have not been altogether an inactive member of this association, in endeavouring first of all to nurse it under its swaddling clothes, to bring it forth to its youth, and now my honourable friend Mr. Bethell—whom I delight to see in his place—has the delightful scene to-day, of witnessing it in its full manhood. (*Applause.*) Gentlemen, anxiously have I looked for this year. (*Cheers.*) There is no need now of exhortation; the time has come when we view and see our success—when, instead of being a small body doubtful as to whether we could stand for a single year, here we are, upon—I will not say a par—but with the full challenge of all England to match with the stock we produce. (*Loud cheers.*) Yes, it is indeed most gratifying

to think that the few gentlemen who joined me, and who are now, with me, going out of office, should, in these few years—three short years—be enabled to offer to your notice such a scene as was presented on the entrance to Westwood to-day; where many of the gentry of the county, and numbers of the finest and boldest yeomanry any portion of England can boast, were assembled. (*Cheers.*) Gentlemen, under these circumstances, I am delighted to see that our offices are about to pass into the hands of individuals who, I am sure, will feel no less zeal than those who have nurtured the infant institution,—who will feel incumbent upon them the strong duty of not letting it abate a single instant of its splendour and efficiency, but who will carry it on, and see the landed interest protected in all its powers and vigour. Gentlemen, when we commenced our association, we were in a state of depression; we were threatened with repeals of the corn laws; on all hands—throughout all parts of the country—petitions were sent up against us, and it was on the ground of defence only that we started before you, to ask for union and defence in behalf of your common interests, and that you should not be borne down by base and vulgar cries. Gentlemen, your voice has been heard, and not a whisper has been uttered within the walls of parliament for these two last sessions, which has dared to breathe a word against your undoubted rights and privileges. If that whisper comes, be straightway at your posts, as men who, though asleep, have their arms beside them. (*Cheers.*) The hour of depression, I hope, is passing away. At our first meeting, we had to lament it; at our second meeting, we had still further to lament the increase of that depression; but I hope that now the times are brightening upon you, and you can enjoy your cheerful glass amongst us this evening without the dark forebodings which were upon us before. (*Cheers.*) But when I say that, what can I do other than compliment you?—compliment you, did I say? nay, I would rather view your conduct as an instance to render me more proud of my country! Shall we not be proud of the splendid energy, the indomitable perseverance, which has maintained this the best part of our population—the great sinews of our land? (*Cheers.*) You have yielded to no despondence and fears, but you have gone bravely on through all the worst times of depression, not yielding when the times actually pressed most your stock, your land, or your agriculture; and here you are, just coming out of those times, more splendid in your display of stock than ever you have been before. (*Applause.*) Yes, gentlemen, after scenes, and after such circumstances, an Englishman may well boast of being proud of his country, and I am indeed delighted to have met you on this occasion. All now looks better around us; the agricultural interest looks up, and this day all is congratulation—all is triumph—with respect to our association. Let us go on and prosper; let us keep the line to which we have adhered; let us steer clear of every object, but that main one—the encouragement of agriculture, and the stern undeviating protection of its interests. Act upon parliament as you have a right to act—through your representatives—through such representatives as you have—through such representatives as, I trust you will ever maintain, the stern unflinching friends of the farmer, and you will prevail—your interests will remain steady and unshaken. (*Loud cheers.*) With these sentiments I sit down. You may depend upon it, that

while breath breathes in this body, the same sentiments will ever animate me—the same feeling on behalf of the farmer—the same resolution to attempt, in every way, to unite him against all efforts which would compromise his interests. (*Loud cheers.*)

The CHAIRMAN gave—

The successful Candidates.

R. F. SHAW, Esq., of Brantingham, returned thanks. He stated that it was his intention to return to the society the premiums he had received. He suggested that a handsome premium should be given to any person who invented a machine of any description useful for agriculture.

The CHAIRMAN said it now became his duty to propose the health of the gentleman who had been selected to fill the important office he now held. He was sure every gentleman feeling any interest in the prosperity of agriculture would heartily join with him in applauding the selection made for the ensuing three years. He gave—

The health of the Hon. C. Langdale, President of the Association for the ensuing three years. (*Three times three.*)

The Hon. C. LANGDALE acknowledged the toast in a long address, which from a press of other matter we are unable to report at any length. A gentleman at some distance from him (Mr. Gilby) had stated the reasons for which this institution was first established. They knew that all other branches of the community had their associations, and were enabled to act more in unison than the agricultural interest. The agriculturists were dispersed over a large extent of country, and it particularly behoved them to form associations of this description. He was one who believed that the interests of the manufacturing, commercial, and agricultural classes were intimately connected. The speaker directed the attention of the meeting to the enquiries which had been conducted before a committee of the House of Commons into the alleged grievances of the farmers. That committee had closed their labours without making any report—without expressing an opinion one way or the other. The conclusion he drew from this was not that the committee found no remedy could be devised, but that their opinions were so different that no part of the committee was strong enough to draw up any specific plan of relief. He observed that an immense body of evidence had been laid before the committee, and he suggested that the more important parts of that evidence should be published for the perusal of farmers and those connected with agriculture.

DAVID BURTON, Esq., of Cherry Burton, gave—

The health of Robert Denison, Esq., Vice-President of the East Riding Agricultural Association for the ensuing three years.

ROBERT DENISON, Esq., said he thanked them for the very kind and indulgent manner in which they had drunk his health. As one of the vice-presidents for the next year, he felt that he, as well as those with whom he was associated, would succeed those whom they could never hope to emulate. It was their predecessors who had carried through the arduous undertaking in which they had been engaged, and it would be to himself and colleagues not a work of trouble, but one of ease and of pleasure. (*Applause.*) Not having been in parliament—(*laughter*)—he was not able—nor did he wish so to do—to introduce to their notice anything about what parliament might do for them; but if any one could mention any subjects

that would be of benefit to the farmer as a private individual, those were the topics to be admitted at such meetings as the present. He wished it, however, to be understood, that he did not mean to say that they ought not to hear everything that could be alluded to in regard to the agricultural interest as a public concern. He would suggest that the lists of candidates for premiums should be closed sometime before the annual meeting—say a month—which would prevent much inconvenience to the candidates. He thought that was a subject which should be taken into the consideration of the committee. He could only say the existing rule had hindered him from bringing some stock, because he did not know whether there would be any animals to compete with them. He thought a very good resolution had been passed by the committee to-day—that of not allowing any person to receive a premium for the same animal twice. Mr. D. then observed—"I have travelled a good deal lately, and in noticing agriculture in some counties I saw one point which I thought might be of benefit to the agriculturists of the East Riding—that is, the power of sowing winter tares in the warmer soils directly the wheat crop is taken off. As far as my humble opinion goes, the best way of getting that, would be to plough the stubble up the moment the wheat is got out, then to work it with the presser, and then to sow the tares; if the management is not sufficient, the light expense of sowing these tares would bring them sufficiently forward for sheep-stock to be fed upon them, and you could get your turnip-crop afterwards. Where the soil is sufficiently warm to enable you to do it, it would give such an enormous increase of food for sheep in the East Riding, as you have very little idea of." There was another point he would allude to. He certainly never thought that he should have entered into competition with a person who had done so much in improving implements of husbandry, as Mr. Crosskill, of Beverley. He was delighted to hear the proposal of Mr. Shawe to give a premium for the most useful implement of agriculture, and he would challenge Mr. Crosskill himself, and try if he could not invent something to surpass him,—(*laughter and cheers*)—he would here challenge Mr. Crosskill, for he was determined to produce something, and if it was unworthy of their notice they might laugh at him. (*Cheers and laughter.*)

The Rev. W. R. GILBY, said, he had heard that one or two observations had been made that in his previous address, when he mentioned the corn laws, he was touching upon politics. (*No, no.*) He contended that was a subject directly connected with the agricultural interests, and the sole object in forming this association was for their protection, and for the expression of their sentiments on such questions as this. He was persuaded that question is not dead, but sleepeth; it will be revived whenever an opportunity arises. Before he concluded, he wished to give a toast—the health of the committee, by whose labours, and with whose aid they had carried the association to its present summit. He hoped and trusted it would still continue to flourish, not only as showing the fairest results of agriculture, but as one of the sternest and most determined protectors of the agricultural interest. He gave—

The health of the Committee.

The CHAIRMAN said he had a toast to propose, which he was sure they would all drink with due honour; it was the health of an officer of great importance to the association. He gave—

The health of the Secretary, J. B. Bainton, Esq.,  
(*Three times three.*)

J. B. BAINTON, Esq., said—He was sure he should be very much devoid of feeling if he did not rise immediately, after the spontaneous manner in which his health had been drunk. So far as his exertions had gone, he had endeavoured to do what had been consistent with the feelings of the association. If any merit at all was due to any persons, it was to the Committee of the Association, and not to himself. He had only endeavoured to follow up the recommendations of the committee, and if in doing so he had met with their approbation, he was most thankful. (*Cheers.*)

E. W. SMITH, Esq., of Routh, said he had not intended to address them, but he could not let Mr. Gilby depart from the room, with the impression on his mind that he had said anything contrary to the rules of the association. When he (Mr. Gilby) touched upon the corn laws, he touched upon the very corner stone on which the association was founded. When they met here year after year they could not but see that every year the association was rising in consequence, although at the outset many persons tried to cast upon it a political stigma; and though many of the landowners, and others who should have joined them, held aloof, and treated it with apathy and shyness, yet he thought the time had now arrived when they would see these gentlemen join the association with joy and gladness; and more particularly when they saw the selection this day made of a president and a vice-president, for the ensuing three years. Politics could no longer be said to be the guide of their foot-steps, for they had now got for their president and vice-president two gentlemen, who in politics were diametrically opposed to each other. (*Cheers.*)—He was sure, however, the meeting would agree with him in saying that both those gentlemen were good landlords—that they both had the interests of the farmer and of the labourer at heart—and that they would take care to have the interests of the landowner at heart too. They might therefore confidently hope that when those who had hitherto held themselves aloof from the association saw that they steered clear of all political animosities, they would enrol themselves as members of the association. He was sure that no mere visionary speculator of the day could get up and taunt them by asking—“Where is your distress, or your call for inquiry?” They had shewn their strength by their complaints and petitions; the legislature had considered them a body worthy of notice; and as long as they made their appeals through such associations as this, so long would they have a voice in the country. Such men, when they taunted the agriculturists, taunted them without a cause. It was through the able assistance of Mr. Gilby that this society was so well formed. On behalf of the meeting he apologised to Mr. Gilby for the observations said to have been made respecting his speech.

The Chairman quitted the room soon after seven o'clock, and the company separated soon afterwards.

ROBERT DENISON, Esq., of Kilwick Percy, gave a premium of 5*l*. for the best yearling roadster stallion colt, by Merrylegs exhibited at the show next year. John Greame, Esq., returned the sum of 5*l*. from the premiums which he obtained, and Daniel Sykes, Esq., returned the sum of 1*l*. a premium awarded to him, to be applied to the general purposes of the association. R. F.

Shawe, Esq. of Brantingham Thorpe, returned the premiums awarded to him, to be presented to the individual who shall invent the most useful piece of machinery applicable to agricultural purposes.

After the splendid show of stock produced by the East Riding Agricultural Association on this occasion, we may venture to predict an equal, if not an increasing, excellence in the show of the next year.

## ON WOOD-EVIL, OR PANTAS, AND MOOR-ILL.

BY MR. W. COX, LEEK, STAFFORDSHIRE.

(*From the Veterinarian.*)

I have been on the look-out for some time, for a distinction in *The Veterinarian*, between those diseases in cattle called the wood-evil and moor-ill: I am not aware that a proper one has hitherto been drawn by any writer. For this reason I am induced to take up my pen, not only because I flatter myself that I am able to give a few hints as to the causes, symptoms, and method of cure of the above diseases, but with an intention to rouse a spirit of inquiry amongst my intelligent veterinary brethren, and particularly among those of the northern districts.

THE WOOD-EVIL, OR PANTAS.—This disorder is most prevalent in woody districts, or low meadow or pasture land, where there are many crabs and black willow trees, which the cattle will sometimes eat with greediness, and become obstinately sapped. I have one case in particular in my memory, in which it took nearly four pounds of Epsom salts in order to open the bowels: many also of the cattle that had eaten of the willows required almost as much to purge them.

THE MOOR-ILL.—This disease is wholly confined to moors, and commons, and poor lands. It is very prevalent in the north of Staffordshire, and is called by some farmers, the over-country disorder.

As to the cause of this complaint there is a great variety of opinions among the farmers; some say it comes on in the winter, and trace it to the hay being mixed with a herb in it, which is called mountain flax: others say that the fault is in the water: other very intelligent farmers tell me that they have watched it very closely for some years, and that it always begins in the summer, and more so in dry summers, when the beast does not obtain sufficient nourishment to supply the wants of nature. This disease is nearly or wholly confined to milch cows.

*Symptoms.*—The first appearance of it is a kind of grunting, to which succeeds a stiffness of the limbs and body, and mostly of the fore extremities and thorax. Sometimes the cow will be one whole mass of stiffness, and her joints will rattle when she walks, like the breaking of rotten sticks. The pulse is seldom much affected, the appetite not at all, and the milk is little, if at all, diminished in quantity or quality. There is no swelling of any part; and thus the beast will remain month after month, and sometimes year after year, if a cure is not effected.

As to the cure, bleeding and purging have always been found injurious. A seton of hellebore in the dewlap, and one purge mingled with some diuretic medicine, should lay the foundation for that tonic or cordial plan which will always have the desired effect, providing the beast is removed



to a better situation. A cow that has once had this complaint will be liable to a relapse if returned to her old situation and exposed to the same exciting causes.

Will not some of our country correspondents accept the challenge, and prove whether Mr. Cox is right or wrong in the distinction which he draws? It is an important subject, and, if we mistake not, one that is much misunderstood.—EDIT.

### RECEPTION OF THE DUKE OF RICHMOND ON HIS SCOTCH ESTATES.

Tuesday was a gala day at Huntly. At an early hour the town presented a lively appearance. The inhabitants and a great concourse of strangers were, about mid-day, seen wending their way toward the Battle-hill, to wait the arrival of his Grace the Duke of Lennox and Richmond. His Grace's tenantry of the Aberdeenshire estates rode about five miles to meet his Grace; then drew up in line, we think, at Newtongary. On his arrival there the President of the Strathbogie Club, Mr. Stewart, said, "My Lord Duke, we are now on the eastern boundaries of your Grace's possessions in Aberdeenshire. I, as President of the Strathbogie Club, accompanied by the Vice-President and Secretary, and deputed by the tenantry in your Aberdeenshire estates, beg to be permitted to read to your Grace this address from them":—

TO HIS GRACE THE DUKE OF RICHMOND, &c. &c. &c.

We, your Grace's tenants of your estates of Aberdeenshire, approach your Grace for the purpose of offering our sincere and hearty welcome upon your first arrival among us as our landlord.

Many of us were born and have grown old under the protection of the family of Gordon. Our fathers have enjoyed their friendship and support; and while we experience unfeigned and deep regret for the loss we have lately sustained, at the same time we cannot fail to express the confidence with which we hail, as our future landlord, a nobleman so deservedly high in the estimation of his country.

Not with expressions of adulation, but with feelings of sincere respect, we approach your Grace, looking forward to a continuation of the bond of union which has connected us with our former landlords, with an earnest desire to cherish towards your Grace and family the same attachment which we entertained towards that branch of your ancestors under which we have lived.

We would beg permission to offer our most respectful welcome to her Grace the Duchess of Richmond and your family.—23d August 1836.

The President further said: "My Lord Duke, regard for the feelings and respect for the memory of your Grace's noble relative, the late lamented Duke of Gordon, prevent us formally from giving expression to our feelings in any other way than by offering this respect and welcome, which your Grace may be assured is not the less sincere on that account."

The tenantry then filed past, and formed behind the train of carriages. The following is the order in which the procession arrived on the square of Huntly:—The inhabitants of the town and neighbourhood four abreast on foot. They marched round the market-place; then formed a hollow square, Captain Gordon, of the Royal Artillery, and the Rev. Mr. Walker, standing in the centre. A party of soldiers, in full uniform, marching two abreast, followed next, and immediately in front of his Grace's carriage. On its arrival at the centre of the square Dr. Bremner presented the following address:—

TO HIS GRACE CHARLES GORDON LENNOX, DUKE OF LENNOX AND RICHMOND, K. G., &c.

We, the feuars and inhabitants of Huntly, beg to offer your Grace our sincere congratulations on this your first visit to your extensive and valuable domains in this part of the kingdom.

Yet we cannot refrain here from expressing to your Grace our feelings of deep regret for the loss of your noble relative, George, the last Duke of Gordon, our late superior.

Confident, however, that we welcome in his successor a nobleman every way worthy of the line from which he is descended, we would assure your Grace that the feuars and inhabitants of Huntly shall always feel proud to stand in that relation towards you and your family which cordiality of feeling, and unity of purpose render alike honourable and advantageous to all parties.

We would likewise beg to convey our respectful welcome to her Grace the Duchess of Richmond and the other members of your noble family.

In name and by the appointment of the feuars and inhabitants of Huntly. J. BREMNER.

His Grace, addressing himself to Dr. Bremner said—"Sir, it is with much pleasure I receive this address, and I beg to assure you that it will ever afford me great happiness to meet the people of Huntly on all occasions. This is a day of pride and satisfaction to me, the more so when I see so many smiling faces around me, and I trust we shall often meet, and under as happy auspices as we have done on the present occasion." His Grace then alluded to the late Duke of Gordon and said that, "he would ever make it his endeavour to ameliorate the condition of his tenantry." The procession moved on again; the tenantry mounted on horseback to the number of about 400 brought up the rear. They rode three abreast. In front of the Royal Oak there appeared what we supposed a representation of the tree of Liberty. At the southern entrance to the market-place there was a triumphal arch, with the word "Lennox" fancifully formed of flowers, and a similar one with the word "Richmond." The tenants having escorted the Duke to the north-western boundaries of his Aberdeenshire estates, Mr. Stewart of Cocklarachie, in a short speech, begged, in the name of the others, to take leave.

In the evening there was a dinner, to which about 200 sat down; James Stewart, of Cocklarachie, in the chair. The greatest cordiality and good feeling prevailed throughout the evening.

BRISTOL.—BRITISH ASSOCIATION.—At Section D (Zoology and Botany), held at Colston's School, the commencement of a paper was read from Dr. Richardson, on the Zoology of North America; and from Mr. Rootsey a description, accompanied with a living specimen, of the *aranea avicularia*, a monstrous species of spider, that sometimes entraps small birds, brought over alive from South America amongst logwood. The same gentleman also communicated some observations on the growth of mangel wurzel, with the mode of obtaining sugar and malt from it, considering that there were certain geological situations particularly fitted for its growth to the extent of about 500,000 acres in the kingdom. A specimen of sugar candy, from the *rhododendron ponticum*, was likewise exhibited, and some observations were read from Mr. Webb Hall, descriptive of the acceleration of growth in wheat on light silicious sands, by exposing them to heat in water; and Dr. Daubeney described some effects of arsenical compounds in vegetation, and on the growth of wheat in soils in which this was largely impregnated.

ENTOMOLOGICAL SOCIETY.—The ordinary meeting was held on Monday evening, when an interesting conversation took place on the ravages of a new species of aphid, described as a new blight by the market-gardeners in the vicinity of the metropolis, which attacked principally the cabbage and brocoli plants. In the course of the observations, it was stated that the best remedy that had been proved was equal parts of an infusion of tobacco and lime-water, frequently injected over the plants. Some account was also given of the new silk-worm, recently introduced to the notice of the members; and a memoir was read upon some Indian insects, in a letter addressed by Mr. Benson to Mr. Kirby.

**A CURE FOR THE SMUT IN WHEAT.**

The following experiments in the preparation of wheat for seed from a *mutty sample*, were made on the 15th of October, 1835, in the middle of an eight acre field—a clover layer. The results have been communicated to us by Mr. Smyth Lungley, of Church Hall, Kelvedon. We have no doubt but the information thus conveyed will be acceptable to our agricultural readers, coming as it does from an authority so highly respectable:—

No. 1.—Washed three times in clean water, and skimmed every time, then dipped in wood-ashes lees with 2lb of arsenic boiled in 20 gallons of the liquor, after which, the wheat well limed and sown. No bladders or smutty ears.

No. 2.—Not washed; steeped in the liquor and skimmed, and well limed. About 1,500 bladdered or smutty ears to the acre.

No. 3.—Not washed; wetted with lees and no arsenic, but *sulled* instead, and limed. About 2,250 smutty ears to the acre.

No. 4.—Washed as the first, in three clean waters; no arsenic, no salt, but dipped in the lees, and well limed. About 2,250 smutty ears to the acre, the same as No. 3.

No. 5.—Steeped in lees only for about four hours and limed; not washed; nor any arsenic or salt. About 4,500 smutty ears to the acre.

No. 6.—Sown *perfectly* dry. About 11,500 smutty ears to the acre.

No. 7.—The seed wheat rubbed well in the hands with a quantity of bladders or smut balls, of course not washed, but dipped in the lees and arsenic, and well limed. About 18,750 smutty ears to the acre.

No. 1. ....	0	.....	smutty ears.
2. ....	1,500	.....	ditto.
3. ....	2,250	.....	ditto.
4. ....	2,250	.....	ditto.
5. ....	4,500	.....	ditto.
6. ....	11,500	.....	ditto.
7. ....	18,750	.....	ditto.

250 average ears of wheat threshed is a pint measure.

- No. 1.—No loss or waste or damage by smut.
- 2.—5½ pints loss per acre, and wheat injured.
- 3.—11 ditto ..... ditto.
- 4.—11 ditto ..... ditto.
- 5.—22 ditto ..... ditto.
- 6.—36 ditto ..... ditto.
- 7.—67 ditto loss to the acre, or about one bushel, and wheat much injured.

In the field where the experiment was tried, there were 750 sheaves to the acre on the average. The smutty ears were gleaned from several sheaves, which in No. 7, averaged about 25 smutty ears to the sheaf, which makes the above quantity. The other sheaves were gleaned accordingly.

It is not the loss of smutty wheat altogether (which amounts to a bushel in No. 7) but the damage done to the wheat that goes to market. When good wheat is worth 12/ 10s per load, if wheat is much smutty it will lessen the value 50s a load.

In some fields this year from 50 to 100 smutty ears may be gleaned out of one sheaf; that is from two to four bushels per acre waste.

**GAMBIA GOOSE.**—A new section has been formed in the sub-genus *Anas*, by M. de la Fresnaye, having for its type the Gambia goose, or the goose with a double spur. Baron Cuvier had already observed that, in the genus *Anas*, there were some birds, who, to the beak of a duck, joined legs higher than those of a goose, and who perched and built their nests upon trees. Having, however, only seen them after being stuffed, and not having been able to get information respecting their habits, he did not separate them from the rest. It is now known that the Gambia goose is much more

slender, and rises higher from the ground than a swan, a goose, or a duck; it perches on trees, is a courageous and even fierce bird, and, when irritated, it opens its wings and strikes with its spurs. When it swims, the shortness of its sternum in front, joined to the length of its legs, forces it to plunge the fore part of the body and the base of the neck deep into the water, so that the water flows over its back. Its beak is flattened and spatula shaped, like that of the duck or swan; it does not graze like the goose, but seeks the banks and shallow parts of rivers or ponds, where it delights in dabbling like a duck. It is neither swan, goose, nor duck, but approaches nearest to the duck; its feet are semi-palmated.—M. de la Fresnaye proposes to call this section *Cuadrus Echassiers*, or *Anatigralle*, and to place it at the head of the Palmipedes, and after the Flamingos and Avosets.

**THE MOSS ROSE.**—Very little faith is to be placed in the assertions of persons ignorant of gardening and botany, as to the date of the introduction of particular plants; as a proof of which may be given the remarkable fact, that Madam de Genlis, when she was in England, saw the moss rose for the first time in her life; and, when she returned, took a plant with her to Paris, in order to introduce it into France; though the fact is, that it was originated in Provence. The musk rose, Hakluyt tells us, in 1592, was first obtained from Italy; and it also was common in the time of Gerard. The single yellow rose was known to Gerard, but not the double, which was brought to England from Syria before 1629.—*Arboretum Britannicum*.

**TENACITY OF LIFE IN PLANTS.**—The roots of many plants are very tenacious of life, and intense temperatures do not destroy their vitality: the roots of the *river agnus castus* will not be affected though immersed in boiling water; and boiling water may in many instances be applied to the roots of plants without injury. Again, if a mass of roots be divided into two parcels, acetate of lead in solution being absorbed on one side may be evolved again by the second parcel on the other side. Certain plants may absorb some poisons by their roots with impunity, which would be destructive to others.—*The Naturalist*.

**GIGANTIC CORN.**—On the farm of Mr. W. Atkinson of Kilmore, near Richhill, six stalks of corn, this season, sprung from a single grain of seed, each stalk measuring about six feet in length, and the whole containing 475 grains of corn, being the produce of the one original seed! The entire field from which this gigantic stalk has been taken was sown with the old Irish Potatoe Oats in the beginning of March last, and the crop is in general of the height mentioned. The field in question was nearly barren some years ago, but through the management and superior skill of its owner, it has been brought to its present state of fertility. The extraordinary specimen above referred to has been left at our office for inspection.—*Belfast News Letter*.

**IMPORTANT DECISION OF THE POOR LAW COMMISSIONERS.**—A decision, which deserves publicity, has been recently made by the Poor Law Commissioners. A pauper of the parish of Chilton, in the Hungerford Union, who had for the last ten years received regular weekly parochial pay, had resided during the whole of that period with the approbation of the overseers of Chilton, with her daughter, in the parish of Huish, in the Pewsey Union. *Up to the day of her death*, the pay was continued by order of the Hungerford Guardians; who, however, declined to defray, or in any way to contribute to, the expenses attending the *burial* of the deceased pauper. The case has been laid before the Poor Law Commissioners, who state, that the conduct of the Hungerford Union, with respect to the pauper in question, as regards burial, "entirely accords with the Commissioners' views;" thus leaving the burial of all paupers to those parishes in which their decease shall have happened.

## ON BREAKING YOUNG HORSES.

No irritable or passionate person should be employed in forming the rudiments of the education of the horse:—whoever undertakes the business of horse-breaking should be systematically cool and deliberate: further, he should possess a tolerably accurate knowledge of the nature or physiological disposition of the animal which he undertakes to instruct, and to reduce to the servitude of man. I am well aware that horse breaking is generally placed in the hands of men whose education is not sufficient to enlarge or elevate their intellect; yet, after having served an apprenticeship or two in the stable, they would be dull and stupid indeed, if they could not form a tolerable notion of what I have just stated. However, if a horse-breaker could be found whose education raised him above mediocrity, I should prefer him, since the human understanding cannot fail to derive essential assistance from the science of philosophy.

The temper of the horse, like that of the breaker, is an important object of consideration: in which there is as great a variety as in human nature. And, as like produces like, good and bad temper will be frequently found to descend from the progenitors to the offspring. Hence it will be very easily perceived, that in the operations of horse-breaking, the temper and disposition of the animal should be well considered, and the mode of proceeding influenced accordingly—always bearing in mind, however, that severity or coercion is never to be called into action, when the object can be effectively accomplished by persevering mildness.

I have frequently seen professed horse-breakers placed upon the back of a restive horse for the purpose of curing him of such an unpleasant vice. The man has displayed much boldness, but no science; by mere dint of whip and spur he has, at length, compelled the horse to submit; whereas had he understood the correct operation of the hands—had he been aware of the masterly and effective manœuvre of twisting the horse round, he would not only have accomplished the object in a quarter of the time, but with much less danger, and with infinitely more effect. A friend of mine applied to a professed horse-breaker, in a small market town, in Lancashire, respecting a restive mare which had fallen into his hands. The breaker advised him to sell her for any price, as he said it “would get all the flesh off her bones, by knocking her about, to cure her!”

It is stated by naturalists that the horse does not arrive at complete maturity till he is seven years old—the mare a year earlier, which is correct: and, although I am a strong advocate for commencing the education of the horse at an early period, I would by no means have him put to great or severe exertions till he has acquired sufficient strength to go through them without injury to himself.

When the foal is weaned, I would begin to handle him. Being placed in an open stable or building (if with other steady horses so much the better,) I would visit him frequently with hay or corn and water; he should be approached with the greatest mildness and caution, so as to neutralize or subdue his fear and jealousy and render him familiar. If there be any old horses with him, they may be fed from the hand, which will be a great inducement for the foal to partake with them. He will approach with jealous caution, and therefore you should be mindful not to alarm him. Proceeding with gentleness, in a few days, he will allow you to pat and caress him, and at length to place a halter on his head, which must be accomplished by the use of a soothing tone, coaxing, and caresses: nothing should be attempted in haste, nor the least harshness employed in any form. At the same time it is necessary to remark, that the animal should not be rendered a sort of pet by continual caresses, or he will be more difficult to manage afterwards. The foal should be treated with all possible mildness, but never played with. The head of the halter which is placed upon the foal should be formed of web, which will be easier than cord. He may be led a little in it, but the halter should not be taken off, or at least the head of it, but so secured as to be perfectly easy and no way to incommode the animal. As soon as he leads pleasantly, I would remove the halter from his head.

When the foal became a year old he may be bitted and ridden by a *feather*, (that is, a very light lad) but not ridden violently; and if he afterwards take occasional exercise of this sort, he will give much less trouble afterwards in completing his education.

In general, however, young horses are not broke till they are two years old, and at this period they ought not to be put to severe exertion. I am aware it is the custom to work them at this age, and hence arises splents, curbs, &c., so that comparatively few horses are met with whose legs are perfect.

When it is deemed necessary to break the colt, a cavisson must be placed on his head. The cavisson should have an iron nose band, having a joint in the centre, and a loop to which the rein is buckled. The edges of the band, on each side the joint, are turned in, a little serrated, and operate severely if the horse makes resistance: two other joints, one on each side, from which the iron part is continued smooth and flat, from three to five inches, according to the size of the cavisson: at the termination of which there are eyes for the purpose of fixing a leather strap on the near side, and a buckle on the off side, which buckles under the jaw: two other eyes are made in the iron strap, close to the joint for fixing the head stall. A rein, twelve or fifteen feet in length, is fastened by a buckle to the nose-band.

Proceed to put on the cavisson with all the coaxing and gentleness already mentioned

for the halter; and in order that you may not disgust the colt, and cause him to take a dislike to you, do not plague or tease him too long at a time.

When the cavison is properly adjusted, if the colt should endeavour to disengage himself, you can hold him securely by the cavison rein, but avoid if possible, inducing him to make any such attempt. You may lead him, holding the rein short in your right hand, which should be done by coaxing rather than compulsion, and you should often stop and caress him. But, should he endeavour to disengage himself, you must be prepared to hold him fast, and sufficiently short that he cannot turn his hind quarters towards you, lest you should not be able to hold him. Keep his side towards you, and he cannot disengage himself. Avoid irritating or provoking him, and in a short time he will run round you at the extremity of the longeing rein. Use him with all gentleness, and when he proceeds pleasantly load him with caresses. Never provoke him to resistance; and should his temper become ruffled, seem to take no notice of it, and his irritation will soon subside.

Thus continue, letting him work round you for a few days; but be careful of fatiguing him too much. He will soon become sufficiently familiar to allow you to put on the longeing tackle without much difficulty.

Placing the crupper under the dock requires great caution. Place yourself forward, raise the dock with your right hand, and pass the crupper under the tail, letting the tail down gently, lest he commence kicking. Buckle the crupper that it may not be removed, and adjust it properly. The longeing tackle\* should not be drawn too tight at first, and should be frequently moved and adjusted (though it may be quite correct) for the purpose of accustoming the colt to it, and rendering him steady.

Work him in circles in the slow trot, and urge him not beyond his own inclination. Work him to both hands, and for this purpose, stop him frequently, and on these occasions soothe and caress him.

Young horses are generally longed in the open air—a school or building with a clay floor is preferable if such a place can be conveniently obtained: otherwise, good level elastic turf.†

When the colt has become accustomed to his tackle, the reins should be shortened by degrees, till the head becomes properly placed; that is, his nose should not be brought to his chest, nor yet carried poking out; common sense must be used on these

occasions. Attention must be paid to the form of the animal, and also to his mode of going. If the colt's shoulders are placed well back, possess the true declining position, his neck long and arched, he can scarcely avoid carrying his head in a correct and beautiful position. If the shoulder be too upright the forehead will be low; if the neck be short and straight, the nose will be carried high, consequently, the more awkward the form, the more judgment will it require to place the head properly. Let it be well remembered, however, that nature points out the situation in which every horse should carry his head, and therefore the restraints or alterations imposed by art should never counteract her efforts, nor indeed exercise even a preponderating influence. Let nature and art go hand in hand. The head cannot be properly elevated in the longe, but it may be too much drawn down, which should be cautiously avoided.

The *cross-tree* is a useful instrument, inasmuch as it enables the breaker to place the head of the animal with the greatest ease and the greatest nicety; it is much more effective than the common method. However, it ought never to be forgotten, as I have already observed, that nature and art should go hand in hand. The head should be brought into place gradually; and where the animal happens to be thick in the upper part of the throat, (where the head and neck join) nature should be accommodated accordingly—his nose should not be too much drawn in, lest *roaring* (and perhaps other disease) be the consequence. Where a horse happens to be thick in the part just noticed, he must be suffered to carry his head accordingly.

Be mindful to keep him in a true and regular trot, letting him extend his pace by degrees, and invite him to raise his head by occasionally shaking the longeing reins, particularly if you observe that he lolls his head down, bearing on the bit. Let the lash of the whip follow him to press him on, but not to urge him to the gallop. When you throw the lash at his hind quarters, let it be done lightly, and if he kicks at it, give him the lash smartly to make him sensible of having done wrong.

The precise time for mounting a colt cannot be described, as this will mainly depend on the disposition of the animal; but as soon as he becomes familiar to handle, and works freely in the longe, he may be mounted. But for a few days previously he should be longed with the saddle on his back, that he may be accustomed to it. When you stop or halt for the purpose of changing or altering the reins, &c., embrace the opportunity of patting the saddle, pulling the stirrup-leathers, &c. &c., and as soon as he appears reconciled to the saddle, and the dangling of the stirrups, he may be mounted.

Prepare to mount by taking the reins and a lock of the mane in your hand, and handling the stirrup. If he moves, coax him with all gentleness till you induce him to stand quiet.

\* The longeing tackle consists of the bridle and running reins, the roller and crupper.

† If horses go too near the ground, and be thus liable to come down, longeing them upon a rough ploughed field will induce them to raise their feet and go safe. But this is not recommended in breaking a colt, as it would be too fatiguing; he would be also liable to strike the inner fore feet against the outer, and cause splents, &c.

If you proceed in a proper manner, he will, by degrees, allow you to place your foot in the stirrup, and to stand upright in it, for which you must not fail to caress him. Repeat this till he seems perfectly reconciled to it, when he may be completely mounted. For this purpose you will require assistance, and commence by longeing the colt, and continue till he works cool and steady. Let the assistant place himself before the head of the colt, having the longeing whip in his left hand, and the cavison rein coiled in it also; and let him soothe and caress him while the person is mounting. He who mounts must proceed with all possible gentleness, and accomplish the object by degrees. Raise yourself repeatedly in the stirrup before you attempt to carry your leg over; and when you actually cross your leg over, be careful not to touch any part of his hind quarters, the cantle of the saddle, &c., but place yourself lightly in the saddle. Separate the reins, taking one in each hand. Let not your legs touch nor your thighs to press, but sit loose and motionless, waiting to observe the temper and disposition of the animal. Should he cringe his tail and set up his back, you may expect that he is about to plunge; but avoid taking firm hold with your knees and legs till you find yourself compelled to do so, lest the colt should be prompted to it. The assistant should speak kindly to him, and caress him, which may divert him from his purpose, and in a short time the assistant may invite him to move, leading him in a circle to the left (being the easiest) holding him short by the cavison rein, and watching him, particularly the expression of his eye. If he blows in his nostrils, if his tail be up, and he moves gently, they are signs of good disposition, and the man at his head may gradually lengthen the rein and the rider may collect his reins gently, and feel his mouth as lightly as possible.

If there be a suspicion that the colt will plunge, of which those that have attended him will be able to form an opinion, it will be advisable to have the reins received through the rings fixed to the head-stall of the bridle, which will assist in keeping his head up, without the rider's hands being raised. He will first attempt to force your hands, in which if he succeed, and your hands are high, your body will be drawn forward, and you will be in danger of a fall. Should the colt get his head down, he will most likely begin to plunge; to prevent which as much as possible, the assistant should have the cavison rein short in his hand, and check him with it; and if he can lay hold of the cheek of the bit with his right hand, he can shake his head up, and prevent his violent plunging.

When a horse plunges he holds his breath all the time, (as previously noted) swelling himself out to break the girths, crupper, &c., and he will if possible continue to plunge till he is under the necessity of standing still to breathe; and when this occurs, let him remain a minute, but neither sooth nor caress

him. Should he renew the combat, be prepared to check the violence of it; but by no means provoke it by menace of any kind or angry words. He will not continue the battle long; when over, he must be led in circle, and as he will continue out of temper for a little time, be prepared for another trial. Mild treatment, however, will gradually dissipate his ill humour, when you may relax the strictness with which you hold him, and allow him liberty in proportion to his behaviour. Always finish the lesson in good humour with each other.

The colt will give up the contest after a trial of two or three days, and you will perceive him relax in his efforts each time. He must be continued in this way till he goes steadily at the full length of the longeing rein, and can be turned and directed quietly:—when this is the case, finish the lesson by taking away the cavison rein and riding him without his being led.

The colt will be awkward for some time, and he must be treated with mildness and patience. Animate and aid him gently with the voice, and a slight pressure of the legs, which may be gradually increased, together with slight applications of the whip; but the spurs should not be used till he is reconciled to be ridden. In fact, spurs had better not be worn in the first instance; it will be soon enough to place them on the heel when it becomes necessary to use them.

The colt will go with an unequal step, which a little practice will correct. He should be ridden in a moderate trot, the operation of the hand being delicate, feeling every advance, and thus endeavouring to bring the colt's mouth to correspond in a correct appui. Colts in general require the application of the leg frequently in order to urge them into the hand for the purpose of forming the mouth. Colts with low and heavy forehands are inclined to be heavy on the hand, and dead in the mouth; to remedy which the bit should be frequently moved by the opening and shutting of the fingers, and also by raising the hand a little to induce them to raise the head, the legs applied at the same time. Longeing will be discontinued.

Horses which have been placed in improper hands, after having been ridden for some time, for years perhaps, are again placed in the hands of a breaker, for the purpose of finishing their education; and, as it frequently happens in these cases, that the instructions which they had received were rudimentally incorrect, they require some trouble to divest them of bad habits. It is advisable to longe them; and when a horse of this description has been sufficiently extended, suppled, and bent by the action of the trot, he may be put to the gallop in the longe, finishing his lesson by riding at large to prevent his head being habitually drawn down.

Should it be wished to make a horse gallop with the right foot, to which the left had become habitual, he should be particularly

bent and worked in the trot to the left, in order to retain the left shoulder and extend the right; and when he is sufficiently suppled, put him to the gallop to the right without bending him; and, with a little practice, he will freely take the right foot. It is seldom, however, that all this is requisite for the purpose of inducing a horse to alter his foot, as, by drawing his head a little and pressing the leg behind the girth to the opposite side, when you put him to the gallop, will answer the purpose. Practice will render it familiar to the horse, and he will not require drawing to one side.

As to *making a horse's mouth*, it may be done by riding him in a quick or extended trot, and stopping him suddenly by pulling him together sharply, by which the horse is liable to sprain his houghs or fetlocks, if it be not skilfully managed; and therefore the rider should first ascertain the force which the horse opposes to the hand, that he may not apply too much strength in pulling him together. Let him be reined a step backward before he advances again. I have seldom met with a horse, however, whose mouth could not be rendered pleasant by the judicious operation of the hand without resorting to so violent an expedient as that just described. Hard mouthed horses should be ridden with a sharp twisted bit to the bridoon rein; the curb should be so placed (by means of the curb chain) that a slight feel of the hand has a powerful operation, when, by the light, lively, and judicious operation of the hand, the mouth may be brought to the requisite feeling or sensibility.

Hard mouthed horses should be put on the bit in the stable: for which purpose a common bit, wrapped round with flannel or wool, thus making it tolerably large, will answer the purpose.

Uniting a horse, after the manner directed by manege riders, is crippling the horse by throwing all the weight possible upon the hind quarters, by compelling him to place his haunches and feet as far as he can under him—placing him, in fact, in a situation the very reverse of that which nature intended. If it be desirable to make a horse raise his fore-feet in his paces, riding over a rough ploughed field or uneven ground will very well answer the purpose. Or, if the rider wish to carry this business farther, let him trot the horse out; and then, keeping up the action by the pressure of the legs, the hands must retain the horse and shorten his step.

#### TEACHING THE HORSE TO LEAP.

It is a remark common enough among sportsmen that all horses will leap (or *jump*, to use the modern phraseology of the field) and so they will; yet some of them are much apter scholars than others; and I have seen some which appeared awkward at first, and afterwards became excellent performers.

I have not unfrequently heard it remarked also, that thorough-bred horses seldom leap so well as those which possess a portion of

inferior blood; such an idea has arisen from observation, I have not the least doubt, and the notion has been hastily impressed upon the mind, without endeavouring to ascertain the cause. Some few years since, I saw the horse, Mercury, several times ridden by Mr. Wicksted with his own and also with Sir H. Mainwaring's hounds, and he certainly could not be distinguished as a leaper. Now, this same Mercury had been for several years a successful runner for what are called *Cocktail Stakes*, and was consequently named as not thorough-bred; I feel well convinced that this was a gross falsehood, though a cunningly fabricated pedigree supported the nomination. Similar observations will apply to the celebrated cocktail, Tawpy; after being on the turf for some years, he was purchased by Lord Robert Grosvenor (the hon. Mr. Grosvenor,) but did not become remarkable as a hunter, particularly in that essential quality leaping.

But this is not surprising. These horses had been trained for the course from the earliest period of their lives, they had continued to race for some years: and the mode of going on the course, being ill calculated for the hunting field, the horses appeared in the latter under great disadvantage. On the race course, the horse is thrown forward, and extended to the utmost, for the purpose of acquiring the greatest possible speed, and this mode of action is not calculated for the chase: the racer should be a *daisy-cutter*. Something very different to this is required in the hunter; his action should be more lofty and more united: therefore to enable the thorough-bred horse to shew his powers to the greatest advantage in the field, he should be trained to it, and not allowed to race; and, under such circumstances, I have not the least doubt he would manifest his superior power or ability as a leaper.

A leaping bar is so well known, that any minute or very particular description would appear ridiculous. I would not, however, have the bar so fixed that if touched by the horse, it would fall; since, as soon as the horse has discovered this circumstance, he will not be anxious to clear it:—he will rather try to knock it down. Some persons wrap gorse or hay round the bar, for which I am of opinion there is not the least occasion: the gorse is intended to act as a stimulus to make the horse clear his leap, but it is inconvenient when first teaching a horse to leap. The hay is for the purpose of preventing the horse rubbing the hair off his knees or other parts: I do not recollect ever observing a horse rub the hair off his knees in the act of leaping the bar, nor do I think the hay necessary. If hay or other soft material is to be wrapped round the bar, let it be covered with strong leather stuffed. Boards which are sometimes seen under bars are not requisite; they are injurious rather than otherwise. I would recommend a plain simple bar, eight or nine feet long, and that would not fall when leaned against or touched by the horse.

In teaching a horse to leap, let it be recollected that no horse ever leaps willingly at the bar; those well practised to it, approach it reluctantly; and, although the leaping bar is absolutely necessary in the riding school, a horse may be taught to leap much better in the field than in the school, as will be shown hereafter. However, I will describe the mode of teaching a horse to leap the bar. In the first place let the bar be fixed very low; and let the horse be coaxed, rather than compelled, to leap; in every thing relative to this beautiful and generous quadruped, never resort to severity till every milder method has been repeatedly tried in vain.

Horses unaccustomed to the sight of the bar approach it with suspicion, and some are so alarmed that it is not without trouble they can be got near it. In such cases, it is advisable to remove the bar, and walk the alarmed animal through the pillars till his fears completely subside. Then lay the bar on the ground, between the pillars instead of placing it in them, and coax him to walk over it. After he has passed over it repeatedly, fix the bar in the lowest hole, and walk him to it; if he steps over it, instead of jumping, there is nothing wrong; but if, in this trilling operation, you stop when you are over, and turn to look at him, he will be very likely to stop also; therefore walk on till he becomes quite reconciled to this probationary step.

In teaching the horse to leap, an assistant is requisite. When the bar is raised so high that he cannot walk over it, he must be coaxed or invited to rise at it. The person who leads the horse over must take tolerably short hold of the reins with his right hand, and endeavour to prevent him from coming too near the bar. The operation of the hand is intended to draw the nose in; if you raise your hand under the idea of inducing him to rise, you will cause him to raise his nose, in which position he cannot mite, or bring himself together for the purpose of rising. Therefore, if he presses too close to the bar, let the operation be downward and rather back; thus coax him to rise, in which continue the support of the hand, as he should not be suffered to spring with his hind legs till his fore-feet are considerably raised. An assistant should be behind him with the longeing whip, holding it up, or throwing the lash towards him. When the horse rises, ease your right hand, in order to give him liberty to clear his leap.

The person who uses the whip must be mild; he must not hurry the horse, lest he move from one end of the bar to the other, and endeavour to avoid it. The click of the tongue should be tried before the whip is used, and the whip, in the first instance, should be held out rather than applied. The stimulus must be increased according to circumstances; and if the horse obstinately refuse, severity must be ultimately resorted to, and he must be compelled to perform that which he refused to entreaty and solicitation. He will most likely not leap well, but make

an awkward, blundering business of it; yet he should be caressed rather than corrected, in order to encourage him to better performance. However, if a horse that has been in the habit of leaping well, blunders over the bar through reluctance or heedlessness, moderate correction, instantly applied, will be serviceable.

There are horses which leap so sluggishly as not to clear their hind legs; but if the whip be applied a second or so before he springs, it will make him clear his hind legs.

If a horse is very impatient and eager to leap, the person who leads him over must prevent him leaping till he rises sufficiently before, as the horse, under these circumstances, intends to break or carry away every obstacle before him.

But on no account hurry a timid horse. I have seen many good tempered, though high spirited, horses approach the bar in a timid fearful manner, which have put their heads down over the bar, and smelt at the ground, accompanied by blowing in the nostrils and snorting. You cannot caress such a horse too much. Let him satisfy himself completely, and he will not give much trouble afterwards.

Horses will be met with which will endeavour to break away from you in defiance of the whip behind them and of anything else. If they should succeed, they will persist in this species of obstinate rebellion. As I have already observed, where gentle means will accomplish the object, I would not resort to severity. In some cases, however, resolute measures are indispensable, and this is one of them. Put on the cavison, which will enable you to enforce his obedience assisted by the whip behind.

Let it be well impressed on the mind, that the horse is never to be kept long at any one of his lessons, or he will become disgusted. If he clears the bar fairly six or seven times, it is quite sufficient, and, if he performs well, fewer will answer the purpose; and the horse will not be put out of temper. Further, if the horse clears the bar well, do not be in a hurry to raise it a hole higher; nor indeed would I ever put a horse to a leaping bar more than three feet or three feet and a half high, as they never leap willingly at a bar; I would leave them to attain excellence in the field, where they are animated to the highest degree by the music and emulation of the run, and take their jumps with the utmost possible spirit and eagerness. All that I should be anxious for them to acquire in the school, would be the style in which they cleared the bar, and not the height of the leap. In finishing the lesson, leave off, if possible, at the moment he has performed well, which will afford a good opportunity for caressing him; he will retire in good temper, and return to the bar with much less reluctance than if he had finished his lesson under less favourable circumstances.

When a horse has been sufficiently practised in hand, so that he leaps in a good form

and steadily, clearing the bar well at a moderate height (three feet, for instance) it will be time to ride him over; for which lower the bar considerably. The lesson should finish with the horse being ridden over. For example, when the horse has cleared the bar well, in hand, three or four times, he may be ridden over as many, after the bar has been lowered.

**THE FLYING LEAP.**—When a horse has learned to bend his knees and to leap standing, he attains the flying leap by a little practice. Let a long rein be buckled or fastened to the snaffle, and securing the bridle reins about the horse's neck, to prevent their impeding or balling him, work him in circle, in such a manner that his progress round will bring him each time in contact with the bar, and in consequence in every circle he describes he takes a leap. The bar should be placed quite low at first; the horse should trot; and if he has been used to leap standing, he will most likely pause on approaching the bar, and make a sort of standing leap of it. Be it so. Let him pass over a few times in this way, when you may quicken his pace a little, and he will fly it. Trotting the horse at first enables him to notice the bar, and also to determine where to take his spring, regulate his step, and quicken his pace to give himself force and velocity to clear his leap. If the horse leaps willingly, and is not hurried, he will very soon acquire the method of measuring his distance and clearing the bar.

A horse that leaps reluctantly will require the application of the whip, and he will be very liable to make blunders; but if the bar does not give way, it will not be long before he will correct himself—he will find it pleasanter to clear the bar than bruise and hurt himself against it.

When a horse, in the flying leap, endeavours to escape the bar, an assistant must place himself near the post with a whip in his hand to deter him; and when the horse leaps, he must pass under the rein, and wait for the horse coming again.

As soon as the horse leaps safe and well in hand, finish the lesson by riding him over, lowering the bar, however, for that purpose.

A horse must be practised in the field to finish his education as a leaper; nor indeed is a school education indispensably requisite for a hunter.

A few years since, I purchased a beautiful and a very powerful bay horse, nearly thorough bred, of Mr. Lloyd, of Cefn, near St. Asaph. I purchased him expressly for the purpose of hunting; but, as the horse had not the most remote idea of jumping, it became necessary to give him an opportunity of acquiring that art. Indeed, I had every reason to suppose, from the horse's manner that he had been placed in very improper hands for the purpose of breaking. He was very high spirited, but very good tempered. After riding him as a hack for some weeks till the harvest was got in, I took him into the fields, and having

a long rein fixed to a common snaffle, I placed him at a small fence, having sent a man over with the long rein in his hand. With a little patience and coaxing he scrambled over, without the least application of the whip; and I succeeded in getting him over half a dozen times, at different places, but all of them very low. I caressed him and both the horse and myself were very well pleased. I never gave him more than one short lesson in one day, and the horse improved amazingly. At length I put him at a blind place and he fell and rolled on his back in the ditch: this made him careful, and he soon jumped steadily and well. I then rode him over, instead of leading him; not only over low hedges, but low rails, increasing the height of his jumps very gradually. As I was frequently at some miles distance from home, on my return I left the road about a mile from home and took the horse into the fields; still, however, setting the horse's head homewards, which induced him to take his fences very freely, and I thus crossed the fields home. As soon as the hunting season commenced, I met the harriers of Sir John Gerard; and, although he was rather impetuous at first, he carried me uncommonly well, and, in the course of half an hour, very steadily. He became very soon one of the best hunters I ever rode.

In teaching a horse to jump in the fields, he is put to a fence, a sight which is familiar to him; and at which therefore he is no way terrified. The leaping bar alarms him, as I have already shown; and even when he has become familiarised to it, he never approaches it half so freely as he does a fence. Moreover, when a horse is taught this part of his business in the manner just described, it is precisely the manner in which he is afterwards to practise it. The bar is one regular set thing, which always presents the same appearance; in hunting, scarcely any two jumps are alike, and the horse has to accommodate himself accordingly; consequently, if a horse be taught precisely the system which he is afterwards to practise it is preferable to any other.

**VAN DIEMEN'S LAND AGRICULTURAL COMPANY.**—On Thursday a meeting of the proprietors of shares in this company was held in Old Broadstreet. The chair was taken by J. Cripps, Esq., the governor, who stated that despatches had been received from Van Diemen's Land to the effect that remittances would be made for a dividend before the expiration of the year. The balance in the colony was 6,000*l.*, comprising bills and cash, and by the disposal of wools, the produce of the flocks of the company, 1,200*l.* were expected to be realized. Agricultural produce in the settlement was high—steers fetching 10*l.* per head; cows, 12*l.* to 14*l.* each, and working bullocks from 30*l.* to 35*l.* per pair. Wool was at from 1s 6d to 1s 8d per lb. These advanced prices were beneficial to the shareholders. In answer to a question the proprietors were informed that the dividend would be about two and a half per cent. upon the subscribed capital. In the room of J. Pearse, Esq., deceased, J. Cripps, Esq., was elected governor.



COMMITTEE OF THE HOUSE OF COMMONS ON THE STATE OF AGRICULTURE. — MR. SHAW LEFEVRE'S REPORT.

(From the *Mark Lane Express*.)

We have received a pamphlet from the pen of Mr. Shaw Lefevre, member for North-Hampshire, which has been published in the shape of a letter addressed to his constituents. It will be recollected that Mr. Lefevre was Chairman of the Agricultural Committee of the House of Commons, and that considerable disappointment was experienced by many persons, upon the determination of the committee to close its labours without making any report being made known. A reference to the columns of this journal will show that we never anticipated any essential benefit to the *tenant farmer* from the inquiries of any committee. We prognosticated not precisely what has happened, for we gave it as our opinion, that the committee would on the approach of the Michaelmas rent day make a report, and that the *report* would be *all* the aid which the tenant farmer would receive towards his Michaelmas rent. This has turned out not to be strictly true, for the committee has made no report, but that is the only difference. Mr. Lefevre says, "that the mis-statements which have appeared in various newspapers, respecting the draft of a report which he submitted to the committee, have induced him to give a brief statement of his opinions on the present state of the agricultural interest, founded in a great measure upon the evidence given before the Agricultural Committee." If it be in reality to these "mis-statements," that we are indebted for this letter to the electors of North Hampshire, we heartily rejoice that they have been made. And we trust that its contents will not be confined to the electors of that county, but that the agriculturists throughout the kingdom will possess themselves of, and give it a diligent perusal. The soundness of the principles upon which his conclusions are based, borne out as they are in the main by the evidence given before the committee, bespeaks a more than ordinary acquaintance with the subject. Whilst he does not hesitate openly and honestly to disclose his views upon some most important points connected with the well being of the British farmer, it is manifest that he feels the tenderness of the soil upon which he treads. He is well aware of the benighted condition of a very considerable portion of the tenantry, a condition from which we are happy to say they are rapidly emerging, and is therefore cautious of awaking their prejudices, and he is fully sensible of the wild theoretical notions entertained by some of the better educated, whose views if carried out, though they might be productive of a transient prosperity would speedily terminate in still more severe distress and disappointment. The low price of wheat has been a heavy source not only of complaint, but in many instances, of real distress. We have ever contended that that low price was ascribable to an increased home supply. It matters little whether it arises from increased importation from Ireland, from an extension of the convertible system of husbandry or from the bountiful harvests during the last four years, to which ever of these causes it be ascribable whether to one or all, we still maintain that the

low price of wheat is owing to an increased supply, as the high price of barley has been occasioned by an inferior produce in point of quantity and an increased demand. Let us see what Mr. Lefevre says upon the head.

"In connection with the low price of wheat, I must here mention the great change which has taken place in the agriculture of this country within the last few years. In some counties extensive tracts of wold, fen and heath land, heretofore considered unfit for cultivation, have been redeemed; in others old grass lands have been ploughed up, and that which was formerly sown with flax or hemp, has been devoted to wheat, and by the introduction of the turnip system of husbandry, the poor light lands are made to produce wheat at a less cost to the cultivator than the more tenacious soils, and thus the clay lands, which were considered the ancient wheat lands of the country, have to enter into competition with the lighter soils, and are no longer able to maintain their superiority. Whilst this addition has been made to the productive soils in the kingdom, its acreable produce has been materially increased by the operation of draining, and the employment of artificial manures; and to these causes, coupled with the circumstance that an unusual breadth of wheat was sown in 1833, 1834, and that its average weight and consequently its capability to produce human food has increased under the influence of three unusually fine seasons, may be attributed that abundant supply which has produced so remarkable a depression in its price. Some witnesses have attempted to account for this excess by importations from Ireland and Scotland, and by a decrease in the consumption of wheat by the labouring classes, in consequence of the increased growth of potatoes. It appears, however, from a return which was presented to the Committee, that on an average of the three years ending January 1833, 553,274 quarters of wheat were annually imported from Ireland; and that on an average of the three years ending January, 1836, 761,827 quarters were imported from that country, making an excess in the average supply of the last three years of only 208,553 quarters. The imports from Scotland in the three years ending in January, 1833, were, on average, 48,508 quarters of wheat, and in the three years ending January 1836, only 23,622; whilst the quantity of wheat shipped coastwise from England to Scotland, on an average of the last three years, has been 31,202, being an excess of 14,972 above the average of the three preceding years.

"As there has been little or no importation of wheat from abroad during the last three years, it is evident that our markets have been mainly supplied by wheat of English growth, and by referring to the number of quarters sold in those towns whence the returns regulating the averages are sent to the Board of Trade, we find, comparing the average amount of quarters sold in 1829, 1830, and 1831, with those sold in 1832, 1833, 1834, there is an excess of 713,011 quarters of the latter period over the former; and although there may be doubts whether this return is strictly accurate with respect to the exact number of quarters of wheat sold in any one market, it is considered by some of the best informed witnesses to present a fair measure of comparison between the quantities sold in all the towns included in this return at any two given periods since the passing of the last corn law. There does not appear to be sufficient ground for the supposition that potatoes are used to any considerable extent, as a substitute for wheat bread, by the labouring classes; there can be no doubt, therefore, that the late depression in the price

of wheat has arisen almost entirely from a super-abundant supply."

Mr. Lefevre goes on to state that the consequence of the very low price of wheat to the cultivators of the clay soils, upon which, before a new and improved system of husbandry was introduced, the largest proportion of wheat used in the kingdom, was grown, must have been severe in the extreme, and he expresses his regret that the *tenantry* should have been misled by the expectation held out to them, that relief would be obtained at the hands of the legislature. If by improvement, lands hitherto incapable of producing wheat shall have been rendered fruitful in the growth of that species of grain, and the price being reduced, the cultivation of clay lands has become utterly unprofitable, can there be a greater absurdity than to expect that the country should legislate so as to keep up the price, for the purpose of enabling the cultivation of such land to be continued. Let us for an instant look to the consequences of such a step, supposing it to be within the power of the legislature. If wheat can be produced upon light soils with more advantage, than upon heavy lands, at a low price, every shilling per quarter rise in price upon that article will operate as a premium for the still further growth upon the light land. There is however another and more powerful cause of the distress of the tenant farmer, one upon which we have often dilated, and which has brought down upon us the abuse of interested parties, namely—high rents. Upon this subject, Mr. Lefevre observes,

"In some districts, and more particularly in the case of farmers of small capital, distress has been aggravated by a continuance of high rents, and it is matter of deep regret that owing to the expectations held out by the Corn Law of 1815, that permanent high prices could be obtained by legislative enactment, neither landlords nor tenants were prepared for that satisfactory adjustment of rent which ought to have been made at the termination of the war. There is evidently no want of sympathy on the part of the landowners for the condition of their tenantry. Reductions in rent have been made from time to time, limited as was supposed by the necessities of the tenant; whereas, if considerable abatements had been made at once at that period, less upon the whole would have been required, the capital of the tenant would not have been diminished, and much of the present distress might have been averted."

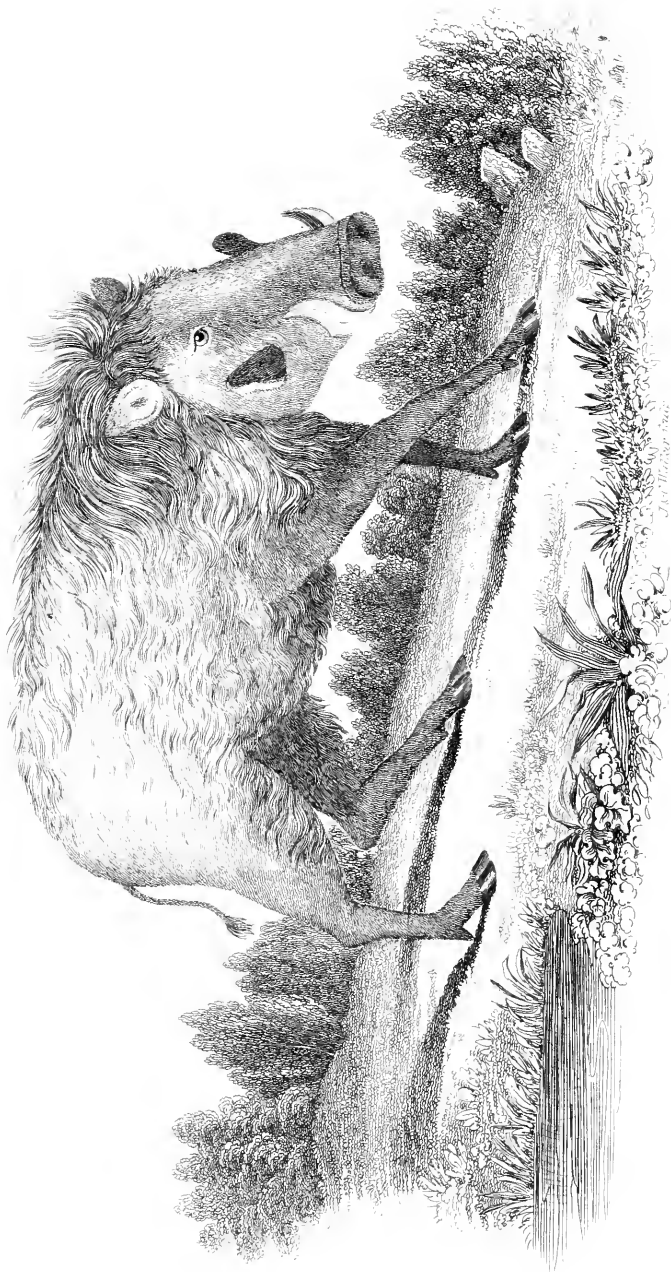
Let the *tenant farmers* of Great Britain, "read, mark, learn, and inwardly digest" that paragraph. They will find more pith and marrow in it, more substantial relief than in all the reports of all the Agricultural Committees that ever sat, with the resolutions, manifestoes and meetings of the Central Agricultural Society into the bargain. If indeed "considerable abatements had been made in the year 1815." If landlords generally, had done as Mr. Knight of Downton Castle, in Herefordshire, did at that period, not forget the useful assistance of the land surveyor, whose valuation in fixing warrents, was found so efficient, but had a second time called in his aid in making an equitable adjustment commensurate with the reduction in the price of agricultural produce, then indeed like him they might have tenants thriving and prosperous, estates flourishing, and in good cultivation, rents well and punctually paid, and tenants

happy and contented. We know that some landlords have adopted this course, and in so doing, they have consulted their own interests. Under such landlords, "the capital of the tenant has not been diminished." They are not of the class which for twenty years, has been receiving "rents out of the capital of the tenants," and not until lately when their capital was absorbed, have themselves "felt the grinding ruin." It is our intention to offer some further observations on the several points treated upon in Mr. Lefevre's pamphlet; but in the mean time, we trust that such landlords as are not suffering under the effects of "the grinding ruin," will purchase and circulate it among their tenantry. It may be had at the cheap price of 3s per dozen; and a cheaper threepenny worth of sound substantial matter, we have never yet seen offered to the public in any shape or upon any subject.

NEPAUL WHEAT.—We understand that several trials of this new variety of wheat have been made by agriculturists of this county this season, and the result is likely to substantiate its claims to the attention of the tenantry. Mr. Turnbull of Bellwood has tried a small field with it this year, and it is now a good crop, and nearly ready for the sickle. It was sown in the middle of May; and, if reaped in the course of next week, will only have been three months in the ground! The soil is one of the latest and poorest on his grounds, and the result would seem to point to its chief advantages being experienced by the upland farmer, and in the Highland districts, where from the nature of the soil and the climate, rapidity of growth is of the greatest consequence. Being a native of one of the mountainous districts of India, there can be no doubt of its hardihood; and the trials already made in this county confirm that opinion. The only question remaining is, as to the quality of the grain, and its suitability for domestic use or distillation; as, although termed wheat, the appearance of the grain seems mors akin to the barley of this country. It is to be hoped that the result of the trials made in the various quarters in the country will be laid in an authentic form before the public—for which purpose, the AGRICULTURAL MUSEUM was admirably adapted; and we trust that, however mortifying the little support that institution has met with from the agriculturists of the county hitherto, Mr. Turnbull will be encouraged to make one more trial for the credit of the county, and we hope, eventually his own remuneration.—*Perth Courier*.

EFFECTS OF LIGHTNING.—M. Baric, of La Haye, has communicated to the French Academy of Sciences the remarkable growth of a poplar which had been struck by lightning. It grew in an avenue belonging to him. The lightning broke some of the branches at the top, and the fluid ran along the trunk, from the top to the bottom of the northern side, without injuring the bark, went into the ground at the root, and turned up two large masses, each nearly a cubic foot in size. The tree at that time measured twelve inches in circumference, and it was in the month of July that the circumstance occurred. In the following April the trunk had exactly doubled its size, while the trees close to it retained the same girth; and the sap flowed in such abundance as to force its way through the bark.





ETHIOPIAN WILD BOAR.

London, Published by J. B. G. in 17<sup>th</sup> 1860.

## THE ETHIOPIAN WILD BOAR.

(PLATE.)

This animal is a native of the hotter regions of Africa, and inhabits the wildest and most uncultivated parts of that dreary continent. It is also found on the island of Madagascar. It grows to a very large size, and differs from the wild boar (and also from the domestic hog) found in other parts of the world in the form of its head. Its snout, instead of being taper and resembling a proboscis, is, on the contrary, very broad and square at the end. It has small eyes, placed at a very little distance from each other, level with the surface, and near the top of the forehead. On each cheek a very thick cartilaginous skin projects horizontally, being about three inches long and as many broad. At first sight, these excrescences might be regarded as ears, particularly as the real ears of the animal are small, and partly obscured by a mane of bristles, in colour red, brown, and greyish, and of a considerable length. The boar has four tusks, two in each jaw; the upper ones seven or eight inches long, very thick at the base, and terminating in an obtuse point, grooved and assuming a sort of half perpendicular position as they rise from the lips. The lower tusks are smaller, and when the mouth is shut appear so close to the upper ones that they seem almost joined together. The head in fact is a hideous object, almost as much so as that of the hippopotamus, to which at first view it presents a strong resemblance. Notwithstanding its broad muzzle, it plunges up the earth to seek for roots, on which it principally feeds. It is very active, though large and bulky; so much so, indeed, that in southern Africa, the Hottentots give it the name of the *Rummer*. Like the common wild boar, it strikes with its tusks, when attacked or pursued, and rushes on its adversary with great force and spirit.

A boar of this species was, in 1765, sent to the Prince of Orange, by the Governor of the Cape of Good Hope. From confinement and attention, he became mild and gentle, except when offended; in which case, even those persons to whose care he was entrusted were afraid of him. In general, however, when the door of his cage was opened, he came out in perfect good humour, gaily frisked about, and greedily devoured whatever was given to him. He was one day left alone in the courtyard for a few minutes, and on the return of the keeper was found busily employed in digging into the earth, where, notwithstanding the cemented bricks of the pavement, he had made a large hole, with a view, as was afterwards discovered, of reaching a common sewer that passed at a considerable depth below. It was not without much trouble, and the assistance of several men, that his labour could be interrupted. At length, however, they forced him into his cage.

He would allow himself to be rubbed, like our domestic hog, and, like him, seemed to be delighted with rough friction. When rudely pushed or provoked, he always retired backward, keeping his face towards his assailant, and shaking his head or forcibly striking with it. When, after long confinement, he was set at liberty for a little while, he appeared very gay, and leaped about in an entertaining manner. On these occasions, he would sometimes playfully pursue the fallow deer and other animals.

He was fed principally on grain and roots, and was so fond of rye bread that he would run after any person who had a piece of it in his hand.

When Sparrman was in Africa, he pursued se-

veral pigs with the old sows, with an intention of shooting one of them; but though he failed in this object, their chase gave him singular pleasure. The heads of the females, which had before appeared of a tolerable size, seemed on a sudden to have grown larger and more shapeless. This momentary and wonderful change astonished him so much the more, as, riding hard over a country full of bushes and pits, he had been prevented from giving sufficient attention to the manner in which it was brought about. The whole of the mystery, however, consisted in this: each of the old sows, during its flight, had taken a pig in its mouth; a circumstance which also explained to him another object of his surprise, which was, that all the pigs which he had just before been chasing along with the old ones, had vanished on a sudden. But in this action we find a kind of unanimity among those animals, in which they resemble the domestic species, and which they have in a greater degree than many others. It is likewise very astonishing, that the pigs should be carried about in this manner between such large tusks as those of their mother, without being hurt, or crying out in the least.

The flesh of this animal resembles that of the German wild boar.

The Ethiopian wild boar is a mere variety of the hog tribe, of which the common wild boar may be considered as the parent stock. The wild boar is a native of almost all the temperate parts both of Europe and Asia, as well as of some of the upper parts of Africa.

Hunting the wild boar was formerly a favourite amusement amongst the great in this country; and the chase of it is thus mentioned by an old writer: A wild boar is called a pig of the sounder the first year of his age; a hog the second; a hog's steer the third; and a boar the fourth; when leaving the sounder, he is termed a singler, or a sanglier. The common age of the boar is twenty-five or thirty years; they go to rut about December, and their great heat lasts about three weeks.

It is easier to take a boar in a toil in April or May than at any other season of the year, in consequence of their sleeping more soundly at that period, which is caused by their eating of strong herbs and buds of trees, which moistens their brain and causes sleep.

A boar most commonly lies in the strongest holds of thorns and thick bushes, and will stand at bay before he will forsake his den.

If he is hunted from a strong thick cover, he will be sure to go back the same way he came, if possible; and when he is roused, he never stops until he comes to the place where he thinks himself most secure.

If it so happen that there be a sounder of them together, then, if any break asunder, the rest will run that way; and if he be hunted in the hold or forest, it will be difficult to force him to quit it. Sometimes he will take head, and seem to go drawing to the outsides of the cover; but it is only to hearken to the noise of the dogs; for he will return again, and will be hardly forced to break away before night: however, having broken away, and gone on ways, he will not turn aside for man or beast, by voice, blowing, or any thing else.

A boar will not cry when he is killed, especially a great boar; but the sows and young ones will. In flying before the dogs, he neither doubleth nor crosseth, nor useth subtleties as other beasts of chase do, as being heavy and slow so that the dogs are still in with him.

If you strike at him with sword or boar spear, do not strike low; for then you will hit him on the snout, which he values not, since he watches to take blows on his tusks or thereabouts; but, lifting up your hand, strike right down, and have a special care of your horse; for, if you strike and hurt him, so will he you if he can; therefore, in thus assaulting boars, the hunter must be very careful, for he will rush upon him with great fierceness.

However, he very rarely strikes a man till he is first wounded himself; but afterwards it behoves the hunter to be very wary, for he will run very fiercely, without fear, upon his pursuers; and if he receive not his mortal wound, he overthrows his adversary, unless he falls flat on the ground, when he needs not fear much harm; for his teeth cannot cut downwards but upwards; but with the female it is otherwise, for she will bite or tear any ways.

The best places to wound him are the middle of the forehead, between the eye-lids, or else upon the shoulder, either of which is mortal.

To come to modern times. The wild boar, though extinct in this country, continues to be hunted in France and in most parts of the continent; but the chase of this animal, like some other departments of field sports, has partaken of the improvements of more modern times; and, though he may still be roused by dogs, the gun has been substituted for the boar spear. The method at present frequently adopted for the pursuit of the wild boar, particularly in France, is by sending small noisy dogs into their woody retreats, while the hunters lie in ambush to shoot them as they pass along their different tracks; and on these occasions the sportsmen are frequently assisted by the neighbouring peasantry, as, from their local knowledge, they are enabled to place the hunters in the most advantageous situations. This method of pursuing the chase is distinguished by the name of *La Trac*.

Hog hunting in India is a favourite diversion of the British officers, as well as the other Europeans residing in that part of the world. The wild swine in Hindostan are smaller than those which are found on the European continent. The sportsmen are mounted for the chase, and, with the assistance of dogs, pursue the hog (or wild boar) armed with a sort of javelin, which practice enables them to throw with almost unerring certainty. When a hog is roused, the hunters pursue him, and the first who comes up with the chase throws his javelin: should he miss his aim, the hog is still pursued by others, armed in the same way, until he is killed. The hog, on being roused, makes off as fast as possible; but he no sooner perceives himself attacked, than he turns upon his pursuers; and though the hunters themselves seldom receive much injury in the conflict, it is no uncommon occurrence for the horse to be killed. When the boar turns upon the hunter, the horse is very apt to rear, and he thus affords the boar an opportunity of wounding him in the belly with his tusks. There are other dangers, however, to be apprehended when following this diversion in India, as the sportsman is never secure from the sudden attack of ferocious, lurking wild beasts with which that part of the world abounds, particularly the tiger. The flesh of the Indian wild hog is highly esteemed, and is said to resemble the flavour of venison.

On the chase of the wild boar in France, Colonel Thornton makes the following observations:—

“The equipage destined for the chase of the wild boar is denominated *vautrait*. In great hunting establishments, it forms a separate department, in which, particular officers and attendants are employed. Large equipages for this sport are usually attended by a pack of 15 or 20 couple of hounds. The huntsmen and whipper-in ought to be extremely expert. The chase is very fatiguing. The huntsmen are obliged to shout incessantly, to make the dogs follow, as they are frequently discouraged, especially if they are pursuing an old boar. It requires mettlesome and vigorous horses, and the riders must not be afraid of the branches in the thick recesses of the forest, into which they are obliged to penetrate.

It is extremely difficult to procure hounds well trained for hunting the boar, and this instruction requires great patience and attention; not that a young hound will not at first pursue the animal, but his scent sometimes disgusts, and the country, covered with thickets and morasses, discourages him. A boar is not so easily hunted down as a stag; and, let the establishment be ever so excellent, the chase seldom lasts less than four or five hours. Sometimes the animal is checked by firing a gun, as he is also by being pursued by mastiffs and greyhounds. Chases have been known to last two whole days; and at last the hunters could not have taken the boar but by shooting him on the third day.

When the boar finds himself driven to the last extremity, he does not run forward, but frequently turns, keeping for a considerable time near the same spot, and seeking to make the dogs start some other game. When he is done up, he foams much, advances only by leaps and bounds, throws himself into some marsh, or sets his back against a thicket, facing the dogs, and defending himself with incredible fury. It is then that the whippers-in must give effectual support to the dogs, and endeavour to dislodge the animal; but if he keep at bay, it is proper to prevent the dogs from approaching too near. The whippers-in enter the thicket with precaution: one of them alight, approaches the boar, and plunges his hunting knife into the small of his back. The man who inflicts the wound must be very alert, and instantly run off in a contrary direction, as the boar always turns to the side on which he feels himself wounded. If, however, he should prove so furious as to endanger the sportsmen and the dogs, the best way is to kill him with a gun or pistol: this is a privilege or law reserved for the leader of the company, and is resorted to only at the last extremity. The whipper-in then sounds the death of the animal and encourages the dogs to trample on him. Having cut off the testicles, which would cause the flesh to contract a very disagreeable smell, and a fore foot, which is given to the huntsman, who presents it to the leader of the company, the boar is carried off. Before they return, the dogs are inspected, and those that have received wounds are dressed, as the huntsman ought to be provided with needles, thread, and every thing necessary for that purpose.

Dogs no not eat the flesh of the boar with so much avidity as that of the stag, nor must it even be presented to them raw. All that is in general given to them is the shoulders and the intestines cut in pieces, and boiled in water.

In some parts small bells are fastened round the necks of hounds that hunt the boar and the wolf. If it is not intended to hunt down the boar, but only to shoot him, an equipage becomes per-

fectly useless: one or two blood-hounds, and a few good hounds, are, in this case, quite sufficient. Nay, you need then only employ the mastiffs with which the gamekeepers traverse the forests where the boars couch, and drive them towards the spot where the hunters are posted.

In Germany, and occasionally in France, very fine sport is obtained by hunting of boars and likewise of stags, with toils. An enclosure is formed with rods and pitchforks round the thickets into which the boars have been driven. A huntsman sets his blood-hound upon the scent, and follows him till he has reared the game. Five or six hounds are then slipped; this number is sufficient to hunt a large boar, but, if there are several, the whole pack is taken.

In the first case it is proper to accompany the hounds with a few dogs produced by crossing the mastiff with the hound; these animals, which are extremely ardent, will closely press the boar, and drive him round the enclosure. The dogs are powerfully supported with the voice and the horn, and are followed close to prevent the boar making head against them. After the chase has continued some time, the large mastiffs and greyhounds are slipped, and these rush upon the boar with fury. The huntsmen advance: one pierces the animal with his hunting knife in the small of the back; the others, armed with sticks, are ready to receive him in case he should make towards the person who wounded him, and strike him upon the head, keeping him off with the ends of their sticks till they have dispatched him. When the proposed number of boars are taken, the dogs are called off.

In writing to a friend, Colonel Thornton observes:—"I sent you a paper which contained something about a noble wild boar which I ordered to be hunted; and, when killed in Chambord, to send it here at my expense; and thus to try to let such sportsman here (London) as never saw one be able to judge for themselves. Accordingly, it being arrived, every person that heard of it came to see it. It was hung up at a venison dealer's in Old Bond-street. The concourse of people was so great that the man could not get out of, or others enter, his shop. He is by no means the largest boar I have killed; but he is a terrible looking fellow, more dangerous than one much older, for then their tusks grows thicker, become curved, and the animal is more inactive. He wounded many of the hounds, but only killed, I believe, three. A couple of vermin terriers plagued him the most, as he could not get his tusk to bear upon them. The last final shaft was a *lingo*, which, I see, broke three of his ribs and passed through him. The number of balls he received I shall examine and relate. I understand he stood a run of full forty miles. But I am sure I ran one at least one hundred and forty, and then he was not done up, though constantly viewed from half-past eleven till half-past ten the next day, relays of hounds being uncoupled close at him every three or four hours. What other animal can show such game and bottom?"

"We dine to-day a party on his loin or saddle, which was where he received his death wound. The wound as I have already observed, was inflicted by a *lingo*, which is a piece of iron or lead, formed something like a weaver's shuttle, of the weight of two or three balls, and made to fit the calibre of the gun. It is a sort of bolt, which, if it strike into the flesh, it goes deeper; if it touches a bone, it then turns itself broadways: and thus,

though a ball would only have broken one rib, it broke three close up to the back. The number of balls he received shall be the subject of my next letter. The boar was three years old, was run by fleet fox-hounds, and during the progress of the chase crossed four rivers!"

The wild hog may be said to offer a different object for contemplation, according to the climate of the country in which he is found; while the Pecuary, the smallest and fiercest variety of the tribe, would seem to form the last or conclusive link in the varied or successive chain. The habits and manners of the whole are similar, and they all agree in one remarkable peculiarity: while all the other inhabitants of the forest (the Secretary Falcon and a few other birds excepted), fly from the various serpents with which the warmer regions of the globe are generally stocked, the hog hears the hissing of the reptile with delight; he hastens to the spot where the sound proceeded, and eagerly seizing the snake devours it as greedily as possible. It amounts to nothing that it should prove the cobra de capallo, the rattle snake, or any other venomous serpent, the hog unhesitatingly seizes it, nor was he ever known to suffer the least injury from that which would cost the life of most other animals.

The wild boar of Germany and the forests of Europe, differs in appearance from the hog of the Indian jungle, and the smaller and more beautiful variety of the tribe met with in China; while such of these animals as are found in a state of unlimited freedom in America and the West India Islands, inasmuch as they have originated from the European domestic hog, presents a character for observation, differing in some degree from that of every other variety. Though sufficiently wild to disdain human protection, these animals are less anxious to avoid the contact of man than their more suspicious brethren in the other parts of the world, and instead of attempting to fly from the pursuit of a dog, they turn and face him; placing their hind parts against a tree, they lower their snout, and wait for the attack: woe be to the dog if he face the hog thus prepared to receive him! he is sure to be ripped up with his tusks. These hogs are very common in some of the West India Islands, where the inexperienced terrier (taken from this country in great numbers for the purpose of destroying the rats with which these colonies are very much infected) frequently falls a victim to his own temerity, and the extraordinary defensive capacity of the animals under consideration.

The West Indian wild hogs, as well as those found in a similar state on the American Continent, are further remarkable for their unusual length of leg and snout.

About twelve years ago, the present Earl of Derby (then Lord Stanley) procured several peculiarities from America, under the idea of crossing them with the domestic hog; but the attempt proved utterly abortive.

That our domestic swine were originally derived from the wild boar, admits of no doubt; but, were we to form an opinion of the latter from the varieties which are constantly presented for observation in all parts of the country, as well in the farm-yard as in the streets of many of the large towns throughout the kingdom, we should be very much led astray. Like the bull, the sheep, and many other animals reduced to subjection by man, they lose those powers of active locomotivity which in a wild state were indispensable to their subsistence as well as to their safety. The enormous

white hog of this country, which sometimes attains the weight of forty score, is a very different animal from the wild boar of the continental forest, which, as previously stated, can stand before hounds for hours together.

However, if in different parts of the world, the wild hog differs in size as well as in appearance, the domestic varieties of this animal, like those of the dog, appear interminable; or, in other words, the different classes have been so blended or intermixed as utterly to extinguish any thing like distinct ramification. In fact, the impression made upon the physiology of the hog, and the genius and perseverance of man, forms a striking proof of the "influence of art in promoting the operations of nature," as well as of the almost illimitable resources of the human mind.

### SCIENTIFIC NOTICES.

(From the Leeds Mercury.)

We have been favoured with the following Scientific Notices by John Murray, Esq. F. R. S.—

**BET-ROOT SUGAR.**—You have stated in a recent number of the *Mercury*, that the field of Waterloo is now converted into manufactories for Beet-root sugar. At this moment, it is calculated that no less than 20,000 *hectares* is under cultivation in France for this exclusive purpose. Amiens and Lille are distinguished for the immense quantities of Beet-root reared in their environs; and about a month ago I was informed that there were, in the vicinity of the former city, not less than sixteen *manufactories* of Beet-root sugar in active and successful operation. I send you a specimen of refined Beet-root sugar, by which you will perceive it may challenge competition with the best quality of sugar obtained from the sugar cane. A very beautiful *sugar-candy* is prepared from the Beet-root sugar, and the expressed pulp is found to be most valuable for feeding and fattening cattle. I brought with me to England a packet of "coffee," prepared from the Beet-root, and monopolized—"par Brevet d'Invention."

**PAPIER CARBONNE.**—This name has been applied to a species of paper highly charged with pure charcoal, pronounced to be invaluable as a disinfectant, and is highly recommended by the medical profession of France. It is employed instead of the usual dressings to correct the fetor of putrescent wounds. As I am anxious to make my humble services useful to my country and the cause of humanity, I brought a packet of it with me, and will now take the freedom of sending it to you, not doubting but through your interest it may receive a fair trial in the Leeds Infirmary.

**COW CABBAGE.**—I send you a little of the genuine Cow Cabbage seeds, having brought some with me, from its original home, the Island of Jersey, from which I have just returned and where it is called "Jersey kale." I found it cultivated in almost every garden, and was informed of one specimen cut down in that island last year, which had attained the goodly stature of TWENTY FEET. You have no doubt heard that the *quackery* lately practiced has been completely exposed in the *Mark Lane Express*, &c. I heard the person in question publicly accused in a coffee room in London of having bought the seed from Mr. Edmonds, a respectable seed-sman in the Strand. Certainly, there are two specimens of the stems of Cow Cabbage exposed to public view in the Bedford Conservatories, Covent Garden, as well as those exhibited in Cheapside, where I, in common with others, have seen them. It requires, however, a *bold front* to venture to resist the *formidable argument*, by which the pretensions of this individual are sustained. He constantly carries in his hand "a sprig of *sillelah*," which consists of a stem of the said Cow Cabbage, and conceals a *subre*; on the top is a snuff box, tipped with silver. "Nil disputandum," thought I, as he drew the glittering weapon from the Cow Cabbage scabbard, to the astonishment of the inmates of the coffee room.

13th August, 1836.

J. MURRAY.

### THE SHEEP.—No. V.

#### THE WOOL TRADE CONTINUED.

(From the Dumfries Herald.)

Till the fifteenth century our wool was sold in the fleece to such as came to buy it. Among the principal of our customers were numbered the Flemings and Brabanters, and particularly the merchants of Ghent and Lonvain, who took off vast quantities to supply two manufactories that had flourished in those cities from the tenth century, and had furnished the greatest part of Europe and even England itself with every kind of woollen cloth. Thus they might have continued to the great loss of our island, had not the hands employed in these manufactories repeatedly revolted, having refused to pay certain taxes, and being at length punished and dispersed, found their way in no long time to Holland. While in this last place the spirit of sedition still being dominant, some of their party attacked and killed several of the civil authorities, for which they had to make a precipitate flight to England, where they settled as peaceful citizens, and instructed our people in the working of wool. This occurred in 1420, from which time neither skill, money, or enactments have been spared to enable us to retain in our possession so valuable a trade, in so much that in the reign of Edward III. every pack of English wool when exported was liable to a custom of 50s, a goodly sum in those days, and one which brought the yearly revenue of 250,000*l*. This excessive custom, added to the above-mentioned opportunities, in a manner compelled the people to manufacture for themselves, in which they so well succeeded as to render, in the sixteenth century, during the reign of Elizabeth, a law against the exportation of live sheep and wool absolutely necessary, and this on pain of having the right hand struck off.

By these wise, though severe regulations, during the reign of that Queen, an amazing quantity of woollen cloth was made in England, and its exportation was so increased as to amount in a few years to a million and a half annually. It does not appear that this enactment was ever repealed, though supposed to be so by the 12th of Charles II. chap. 32, sec. 3, which, without taking away the penalties imposed by former statutes, imposes a new penalty, viz., 20s, for every sheep exported or attempted to be exported, together with the forfeiture of the sheep and of the owner's share in it.

By the 14th of Charles II. chap. 18, the exportation of wool was deemed felony, and punished accordingly, a circumstance that tended nearly to the total defeat of the ends intended, by hindering all that were not cold-blooded indeed, or troubled with conscientious qualms, from bringing to justice the actors in so trifling an offence; this was seen through and corrected by the 7th and 8th of William III. chap. 23, sec. 4, by which it was declared that, "Whereas the statute of the 13th and 14th of King Charles II., made against the exportation of wool among other things in the said act mentioned, doth enact the same to be deemed felony, by the severity of which penalty the prosecution of offenders hath not been so effectually put into execution; be it therefore enacted, by the authority aforesaid, that so much of the said act which relates to the making the said offence felony, be repealed and made void."

Adam Smith, when commenting in his "Wealth of Nations" on the laws relating to wool, rebukes severely the ill-judged compliance of our Government in yielding to the solicitation of our merchants, and allowing them to sway with iron rule the commerce of the world. "The severity of many of the laws which have been enacted for the security of the



revenue, is very justly complained of as imposing heavy penalties upon actions which, antecedent to the statutes that declared them to be crimes, had always been understood to be innocent. But the cruelest of our revenue laws, I will venture to affirm, are mild and gentle in comparison to some of those which the clamour of our merchants and manufacturers has extorted from the legislature for the support of their own absurd and oppressive monopolies. Like the laws of Draco, these laws may be said to be all written in blood."

About the middle of the seventeenth century, the exporting of wool was made a capital crime. In spite, however, of the vigilance of our Government, a contraband trade in wool was long carried on between the inhabitants of the French and English coasts, especially those of Sussex, by a class of men termed Owlars, from their only venturing abroad in the night, and who were tempted to despise the penalty, with an intrepidity that astonished the rest of Europe, by the high prices that were sure to be afforded to them in the Gallic market.

The wools of England have always been in the highest repute, and that more abroad than at home. Their fineness and plenty are ascribed by many to the sweet short grass on most of our pastures and downs, and to the sheep having the privilege of feeding all the year round without being shut in folds, but it cannot be denied that though food may have much to do in the matter, yet that climate, and the unflinching persevering industry and attention with which an Englishman devotes himself to what is once determined on, have more than any other circumstance tended to the advancement of our wools, and woollen manufactures, and to the consequent prosperity of our island.

The reason of the existence of so many laws on this subject is, that wool continued for ages to be the principal commodity of the country, meeting all demands for the support of armies and payment of public revenues, and affording aids to the Crown, which were in general granted therein. The scarcity of money in England before the discovery of America, rendered it necessary to levy taxes frequently in kind, and as wool was abundant, it often figured as the representative of a more portable commodity. Thus Edward III. in attempting during the 12th year of his reign, (1333) to wrest the Crown of France from the house of Valois, procured a grant of half the wool in England, amounting to 20,000 packs, which taking it as valued by some authors at 40*l* a pack, must have brought the enormous sum of 800,000*l*, while part of the 300,000*l* demanded at a more remote period by the Emperor of Germany, as the ransom Richard I. was raised by a loan of wool. During the reign of Henry I., a sheep, in consequence of the scarcity of specie, was only valued at four-pence. Edward I., the great reformer of our laws, imposed a duty of 6*s* 8*d* on every sack of wool exported, and the like sum for every 300 wool-fells; but afterwards, when his necessities demanded a more productive revenue, he laid those additional duties on foreign merchants, which afterwards became the tonnage and poundage so famous in England's history, and among others, increased the former taxes on wool and fells by forty-pence, while like other monarchs of the period, he occasionally, with other appendages of his income, received subsidies of wool.

From the income of the Crown in 1433, during the reign of Henry V., we find that the customs on wool brought no less than 50,000*l*, and passing on to the time of Elizabeth, we notice the importation of Spanish wool among the number of monopolies

that were but too frequently granted to the minions of her Court as a recompense for their servility.

It was owing to this method of paying in kind, that the ancient kings of England had so frequently to change their place of abode. The apology for money being too bulky to be forwarded to the Treasury, they carried their Court from one place to another, that they might consume upon the spot the revenue of their several demesnes.

Commerce and industry were at a very low ebb during the time of Edward III., the principal export being wool, which only brought into the kingdom about 450,000*l*.—50,000 sacks were annually exported, as appears by the Parliament remonstrating in 1349, that the king, by an illegal imposition of forty shillings on each sack, had raised 60,000*l* a year. Each sack contained twenty-six stone, and each stone fourteen pounds (34, Edward III., cap. 5), and was not, on an average, valued at more than 14*l*. or 15*l*. a sack. Edward promoted the woollen manufacture by bringing, in 1331, John Kemp and seventy other Walloon families, weavers, from Flanders, and gave every possible encouragement to foreign weavers (11, Edward III., cap. 5), owing to the want of native skill in this department, while Parliament, in an ill-judged moment, prohibited the exportation of woollen goods, certainly an injurious step so long as unwrought wool was allowed to be exported. A further encouragement was given to the home manufacture by the enactment of a law (11, Edward III., cap. 2), which prohibited every one from wearing any cloth but of English fabric.

The staple or market of wool was fixed by act of Parliament (27, Edward III.) in particular towns of England, but was afterwards removed by law to Calais; and English merchants were prohibited from exporting any goods from the staple, or, in other words, foreign navigation was abandoned.

On the introduction of the Flemish weavers, Kendal became the metropolis of this branch of industry, and was soon equalled by many other towns, as Norwich, Sudbury, Colchester, and York, in the extent of its manufactories, while woollens were spun and wove in Devonshire, Worcestershire, Gloucestershire, Hampshire, Berkshire, Sussex, & Wales.

The progress which this manufacture made in a very short time may be well illustrated by the following table of exports and imports in woollens, about the middle of the 14th century, or twenty years after the importation of John Kemp and his establishment:—

EXPORTS.			
	£	s.	d.
Thirty-one thousand, six hundred and fifty-one and a half of wool, at 6 <i>l</i> . value each sack . . . . .	189,909	0	0
Three thousand, thirty-six hundred and sixty-five fells, at 40 <i>s</i> . value, each hundred at six score . . . . .	6,073	1	8
Whereof the custom amounts to . . . . .	81,624	1	1
Fourteen last, seventeen dicker, and five hides of leather, after 6 <i>l</i> . value the last . . . . .	89	5	0
Whereof the custom amounts to . . . . .	6	17	6
8,061½ of worsted, after 16 <i>s</i> . 8 <i>d</i> . value, the price is . . . . .	6,717	13	4
Whereof the custom amounts to . . . . .	215	13	7
<hr/>			
Summary of the out-carried commodities in value and custom . . . . .	£285,635	17	2
IMPORTS.			
1,832 cloths, after 6 <i>l</i> . value each . . . . .	10,922	0	0
Whereof the custom amounts to . . . . .	91	12	0
<hr/>			
Summary of the in-brought woollens in value and custom . . . . .	£11,013	12	0

That the imported cloths were much finer than the exported may be inferred, from their comparative value in the above tables, and we conclude pretty justly, that the fabrication of coarse cloths exclusively occupied the manufacturers of Britain, while the finer fabrics were still imported from abroad, and the wants of the people were the regulators of British industry.

Much wool was also at this period exported, as our manufactories were not then sufficiently extensive to employ all that was produced. Manufactories, however, increased, and early in the reign of Edward IV, the importation of woollen cloths and caps was prohibited.

The laity granted to the king the one-half of their wools throughout the whole realm, during the summer of 1339, a grant his Majesty is said to have received most graciously, but of the clergy he levied the whole, causing them to pay nine marks for every sack of the best wool. Knighton, who held an office in the abbey of Leicester, says, that that house alone furnished 18 sacks. He then took a fifteenth of all the commonalty of his realm in wool, rating the price of every stone of 14 lbs. at 2s., although in the previous November he had sent the Bishop of Lincoln and the Earls of Suffolk and Northampton, with one thousand sacks of wool into Brabant, which being sold at 40l. a sack, procured him 400,000l.

Edward was apparently not very sure how his people would submit to so sweeping a taxation, as we find him addressing a letter, dated Berwick-upon-Tweed, March 28, 1338, to the Archbishops of York and Canterbury, desiring the favour of their prayers, and that they would excuse him to his people on account of the great taxes he was obliged to lay upon them. The revenue officers appear to have exercised their calling with great strictness during this reign, and to have interfered in an especial manner with the secret trade of the inhabitants of Bristol, but this was terminated by the king granting a license, dated Langley, November 25, 1339, to their weavers, allowing them "to make woollen cloth, without being liable to any molestation from the king's officers," (*Acta Regia*, Vol. I., p. 313.)

Richard II., whose reign was characterized by unequal taxation and rebellion, managed to procure from a garbled parliament a grant of subsidies on several articles for life, and among the rest one on wool and wool fells, forming the first instance of so dangerous a transaction, and a baneful precedent for the future.

The occupation of a merchant did not become honourable till the reign of Edward III., when they were placed on a footing with landed proprietors, and those who had five hundred pounds value in goods and chattels were permitted, by the statute of apparel, to use the same dress as squires of one hundred pounds a-year, and those who were worth more than this might dress like men of double that estate.

To the custom of taking subsidies in kind we may trace the principle of those multifarious regulations which fix the staple or market for wool in certain towns, either in England or more commonly on the Continent, and to the varying state of politics we may ascribe the shiftings these staples so frequently underwent; but it is not easy to see the drift of many of the provisions relating to it, some of which tend to the benefit of foreign rather than of British commerce. In 1449, English cloths having been prohibited by the Duke of Burgundy, our legislature wisely enacted, that until he should repeal this ordinance, no merchandize from his dominions should be admitted into England.

During the bloody and destructive wars of the

white and red roses, when success graced the arms alternately of York and Lancaster, commercial enterprize was almost at a stand, yet this unhappy period brought with all its evils blessings in its train, and Henry VII, did more for the advancement of the wool trade than his predecessors, and gave it greater vigour than it ever had before. Fine cloths were much improved in his reign, and luxury began to be looked to at that early period in an article which, till then, had only been rendered amenable to comfort. The ostentatious reign of Henry VIII, gave an additional impulse to the woollen trade, and cloth was sold in 1512 for five marks, which fifty years before would only have brought about forty shillings, while, in consequence of increasing wealth, population, and consumption, the demand was materially increased. Edward VI., or rather his ministers, for he was then a minor, attempted to lay a poll tax upon sheep, every ewe kept in a separate pasture being charged threepence, every wedder twopence, and all sheep kept on commons three halfpence, but it was found to be so oppressive, so annoying to the people, and so difficult to collect, that it was repealed during the next year.

In this reign England made a distinguished figure as a commercial nation—the manufacture of woollens was raised to a great height, cloth, besides, being exported to Flanders, found its way to Holland, Hamburgh, Sweden, and Russia, where coarse warm stuffs were very much wanted, and the trade wore such an air of affluence, that a tax of eightpence in the pound was laid upon all cloth made for sale in England. This, however, was speedily repealed, a very short trial serving to point out, that though made for an endurance of three prosperous years, yet that the people who were galled by a trifling impost on their sheep, would not, unless in very favourable circumstances, submit to burdens on fabrics which they wore.

Elizabeth made an attempt to rescue this important trade from the hands of the merchant adventurers, but they instantly conspired and ceased to make purchases of cloth, and the queen was obliged to restore the patent.

Elizabeth extended her protection to the Protestants, who fled from the persecutions of the Duke of Alva, in the low countries, and the woollen manufactories became more flourishing than ever,—so much so, that although in 1552 a large quantity of the raw material was exported, yet in less than thirty years, Germany, Poland, France, Flanders, Denmark, and Sweden were covered with British cloths; and, though the price was nearly tripled, yet two hundred thousand pieces were annually sent to those countries. At that time the processes by which woollens are rendered beautiful were unknown in England, and as our exports consisted in white undressed cloth, the profits upon dyeing and finishing, amounting to about a million a-year, were lost. This was attempted to be remedied by prohibiting the exportation of white cloths, but the Dutch and Germans, who benefitted by the dyeing processes, forbade the entrance of any English woollens dyed in the piece into their territories, and the export, consequently fell immediately from 200,000 to 60 pieces, and then it was found necessary to take off the restrictions. This gave rise to the fabrication of medley cloths, or mixtures of wool dyed of different colours, and wrought into the same web. The long parliament promoted, and gave fresh activity to the manufacture by a law enjoining the exclusive use of woollen in burials.

Though nine-tenths of the commerce of the kingdom consisted in the time of James I., in woollen goods, wool was allowed to be exported till the nine-

teenth year of his reign, when it was forbidden by proclamation, though never strictly enforced. The cloth was very little admired even at home, and though it was the staple commodity of the kingdom, a company of merchant adventurers were allowed by a patent to possess the sole disposal of it.

A board of trade was brought together by the king in 1622, and one of the purposes contemplated was to remedy the low price of wool, which was leading the people to complain of the decay of the woollen manufacture; but Hume supposes, and with every appearance of probability, that this fall of prices proceeded from the increase of woollens.

Charles I., after the example of his father, prohibited the exportation of wool by proclamation, that the benefits to be obtained from it might fall to the lot of the people, as it was at that time dear; and he also made regulations concerning the company of merchant adventurers, which, as they still left a monopoly gave little satisfaction.

By the great act of tonnage and poundage, passed in 1660, or the restoration of Charles II., taxes were imposed, among other things, on the exportation of woollen manufactures, and it was not till the reign of William, that the wretched policy of such regulations was discovered, and a law was passed in 1700, by which the duties on woollens were abolished, because in the words of the act (11 and 12 William III. chap. 20.) "the wealth and prosperity of the kingdom doth, in a great measure, depend on the improvement of its woollen manufactures, and the profitable trade carried on by the exportation thereof."

In the time of Charles II., an act was passed for the erection of manufactories (Par. 1, Sess. 1, Cap. 40.) by which it is enacted that no native or stranger is to export wool nor skins with wool upon them, until made into work, or put to the best advantage under the pain of first value thereof, half to the king, and half to the informer. It is also, in this act, ordered, "that none forestall the mercat of wooll, nor keep up the same to a dearth, under the pain against regrators and forestallers, and that for escheving the deceit of putting stones, or the like stuffs therein, no wooll be wrapt up in the fleece, under the pain of confiscation, half to the king, and half to the discoverer and pursuer, declaring always that the Exchequer may licence the export of wool and skins, as they shall see cause."

By the 18th of Charles II., the importation from Ireland into England of great cattle, sheep, and swine, beef, pork, and bacon, and shortly after of mutton, lamb, butter, and cheese, was declared a common nuisance, and forbidden, on pain of forfeiture. Thus the principal resource of a poor country, in the neighbourhood of a rich one, was unfeelingly denied to it till the reign of George III., when the hateful edict was repealed.

The Scots appear to have been very tenacious of any advantages they may have possessed, more especially in regard to their English neighbours, as by an act of Queen Mary, it is ordered (Par. 6, Cap. 45.) that wool and wool fells be not carried to England, under pain of escheat thereof, or of the value, and the transgressor to be punished in his person.

In the reign of James VI. (Par. cap. 113.) an act entitled "against the excess of coastly clothing, and transporting of wooll, quhairby the pure may be the better halden in warke," was framed and subjoined to the regulation then made of men's apparel, by which the transportation out of the kingdom was forbidden, under the pain of confiscation thereof, and of the whole permanent goods of the owners and transporters. It was found necessary afterwards to

issue another edict, (Par. 12, cap. 151.) declaring that wool was not to be transported into England, nor sold to any Englishman in Scotland, who transported the same, under the pain of escheat thereof, and of all the moveables of the actual transporters.

The manufactures of the Hollanders were first established about 1636, or 1637, by one hundred and forty English families who went from Norfolk and Suffolk, to settle at Leyden and Alkmaer. Their manufacture of fine woollen cloths was, however, commenced much earlier, or about 1624, at which time they began to interfere with the English cloth trade in the Netherlands; insomuch that in the twenty-second year of the reign of King James I., a certificate was given to the parliament of 25,000 cloths having been manufactured in that year in Holland, upon which the House of Commons resolved,—1st, "That the merchant adventurers setting imposts upon our cloths is a grievance, and ought not to be continued; and that all other merchants promiscuously, as well as that company, may transport every where northern and western kersies, and new draperies." 2dly, "That other merchants, besides the merchant adventurerers' company, may freely trade with dyed and dressed cloths, and all sorts of coloured cloths into Germany, and the low countries." The English were for long much annoyed at the progress which continued to be made by the woollen manufacturers of Holland, so much so, that a curious speculation was proposed in 1651—a project was laid before the English commonwealth for obtaining, from the court of Spain, the pre-emption of all the Spanish wool. The projector observed, "That this proposed pre-emption would totally dissolve the woollen manufacture of Holland, which, by means of that wool (Spanish) hath of late years mightily increased to the destruction of the vent of all fine cloths of English manufacture, in Holland, France, and the east country, and hath drawn from us considerable numbers of weavers, dyers, and cloth workers, now settled at Leyden, and other towns in Holland, by whose help they have very much improved their skill in cloth, and have made, in that one province, (one year with another) 24,000 to 26,000 cloths yearly. That the Hollanders have of late years bought and exported from Biscay four-fifth parts, at least, of all their wools, and have sold there proportionally of their own country stuffs." This was certainly a novel method of accomplishing an end, by a sweeping monopoly, but the theory was too fine spun ever to be reducible to practice.

In 1607 France supplanted England in many foreign markets, by the care that Colbert, at that time, took to bring the French woollens to perfection. The English, however, immediately turned their attention to other manufactures in which, as in that of paper, they quickly excelled, and thus compelled the French to abandon markets, in which they had long remained without a rival. The former law for burying in woollen (13th Car. cap. iv.) not being well observed, it was repealed by an Act of Parliament in the thirtieth year of that king, (cap. 3.) which enacted a register to be kept in every parish by the incumbent, or his substitute, that every thing about the corpse of the deceased was made of sheep's wool, of which an affidavit shall be made by the relation of the deceased, and lodged with the incumbent, under the penalty of 5*l*. a moiety whereof to go to the poor of the parish, the other to the informer. This was but a poor check, as vanity was so predominant among the rich and great, that they paid the penalty, rather than want the pleasure of adorning their deceased friends with lace and fine linen. The French refugees, in 1635, brought money and talent into

England, and contributed greatly to the erection of manufactories for *slight* woollen stuffs, and other French fabrics, never before made in England. About 1698, a problem was started concerning the manufactures of the country, whether or not a general linen manufacture would prove beneficial to England? As London, at this time, abounded with new projects and schemes, all promising, as new projects generally do, a hoard of wealth, the question caused much excitement. It was at last determined that a novelty of this kind would lead to the sowing of a great quantity of flax in England. The neglecting of the woollen manufacture, which would inevitably follow, might probably lower the price of land; as they said at the time, "it requires about twenty acres of land to breed wool, for setting on work the same number of hands which one acre of flax would employ; and yet, in the end, the woollen manufacture will be found to employ, by far, the greatest number of hands, and yield the most profit to the public, as well as to the manufacturers." In the same year, the English House of Peers addressed King William, with the view of inducing him to discourage the woollen manufactures of Ireland, which, in spite of many restrictions, still continued to give much vexation to the monopolizers of England. The address ran thus:—"The growing manufacture of cloth in Ireland, both by the cheapness of all sorts of the necessaries of life, and the *goodness of materials for making all manner of cloth*, doth invite his subjects of England, with their families and servants, to leave their habitation to settle there, to the increase of the woollen manufacture in Ireland, which makes his loyal subjects in this kingdom very apprehensive that the further growth of it may greatly prejudice the said manufacture here; and praying that his Majesty would be pleased, in the most public and effectual way that may be, to declare to all his subjects of Ireland, that the growth and increase of the woollen manufacture there, hath long and will ever be looked upon with great jealousy by all his subjects of this kingdom." A similar address was presented by the Commons, and the most liberal and enlightened monarch of the age was pleased to answer, "*Gentlemen, I will do all that in me lies to discourage the woollen manufacture of Ireland.*" This was certainly altogether a strange proceeding, especially when viewed in conjunction with the cruel prohibition already mentioned as relating to that country; but much of the poignancy and crushing animosity of the request are lost, when we consider the encouragement that was at the same time given by England to the manufacture of Irish linen, his Majesty being desired, in the same address, to forward that manufacture, pursuant to an Act of Parliament, anno 1696. Nay, some are of opinion that these measures were dictated from the soundest views of the relative situations of the countries, and that the prudent tenor of English enactments was never better exhibited than in the discouragement of the woollen, and encouragement of the linen manufactures of Ireland.

There were 12,000,000 sheep and lambs in Britain in 1699, and the yearly increase was supposed to be about 5,600,000. The value of each sheep, besides the skin, was 7s 4d. The stock was valued at 4,400,000. The value of the wool yearly shorn, at 3s 4d per fleece, came to about 2,000,000l. The skins over and above the wool were valued at 2,400,000l. The woollens manufactured in Britain amounted in value to 5,000,000l. per annum, while our yearly exports of the same were valued at 2,000,000l. Many were at that time afraid of the sinking of the woollen manufactures, because the accounts of the fine draperies exported were larger

than usual; "but," says an anonymous essayist of the time, "such do not contemplate that though the old may have lessened, what is commonly called the new draperies have increased, consisting in bays, serges, and stuffs. So that, upon the whole, infinitely more of the material of wool has of late years been wrought up for foreign use, than in former times, and herein our merchants have been only forced to follow the modes and humours of those people with whom they deal, and the course they have pursued has hitherto not been detrimental to the public. \* \* \* " 'Twere better, indeed, that he call from abroad were only for the fine draperies, because then we should be, in a manner, without a rival; no country but England and Ireland having a sward or turf that will rear sheep, producing the wool, of which most of our draperies are made. 'Tis true, the wool of Spain is fine above all others; but 'tis the wear only of the richer sort, and of Spanish cloths not above nine thousand pieces are sent abroad communibus annis."

In 1700 an English statute (cap. xi.) was passed to admit foreign bone lace, and needle work, three months after the prohibition of the English woollen manufactures in Flanders should be taken off. This prohibition had been found very detrimental to us, and we were therefore obliged to repeal it, in order to save our trade in woollens. Another act was passed (cap. xx.) for taking away the duties on a number of our exports, and, among others, on woollens. In 1703 the treaty, so famous for its conciseness, was entered into between Great Britain and Portugal, much to the benefit of both nations. Peter, King of Portugal, stipulated both in his own name, and that of his successors, to admit for ever hereafter into Portugal "the woollen cloths, and the rest of the woollen manufactures of the Britains," but upon the condition "that her royal Majesty of Great Britain shall in her own name, and that of her successors, be obliged for ever hereafter to admit the wines of the growth of Portugal into Britain," without demanding anything more by the name of custom "than what shall be demanded for the like quantity or measure of French wines, deducting or abating one-third part of the custom or duty,"—leaving it, however in the power of his sacred Majesty of Portugal, to prohibit the entrance of woollen goods on the slightest infringement of the treaty.

Before the peace of Utrecht (1713) we had no rival in the woollen manufacture but the Dutch, over whom we had many natural advantages, such as situation, goodness of our ports, and excellence of the principal constituents of the manufacture. They were obliged to furnish themselves with the materials at second hand. When the woollen trade was properly set afoot in England, during the long and happy reign of Elizabeth, the interest of money was pretty much the same in both countries; but the Dutch were engaged in a bloody and hazardous war, and in establishing their Commonwealth and East India trade, and therefore had not much time to think of improving any manufacture. Owing to these circumstances we came into possession of all the principal marts for woollens, both in Asia and Europe, and retained them till the beginning of the war with France and Spain; we then prohibited trade with both these countries. Before the revolution the people of Turkey, Spain, Portugal, and France, had become so accustomed to the wearing of English cloths and stuffs, that they could ill brook the prohibitions we at that time placed upon our commercial intercourse with them.

In the seventeenth century the Dutch improved their sheep by bringing a peculiar breed from the

East Indies, which thrive remarkably well about the Texel and East Freiseland, and afforded wool so fine and silky as to pass in some instances for that of England. The Dutch permitted the Flemings to transplant this breed to the neighbourhood of Lisle, where they succeeded so well as to take the name of Flemish sheep. The Swedes, though situated in a more severe climate, tried the same experiment with some English sheep, and with so much success that in 1765 they could boast of wool of their own growth equal to that of England or Spain itself. About the year 1720, our exportations of cloth, stuffs, and other woollen manufactures to Sweden amounted to 50,000*l*. The Swedes, however, erected manufactories for themselves, and we were compelled to relinquish a market we had long held to our profit and advantage.

About 1725, when the people of Kirkcudbrightshire neither wore shoes, nor stockings, nor snirts, such clothing as they had was made of cloth manufactured at home; and the fine wool was bought up by strangers, who sent it abroad with great profit. The women also were clothed entirely in woollen, the luxury of linen being unknown till many years after. The woollen cloth was manufactured from the raw material of its natural hue, that intended for men's coats being, in general, made of a mixture of white and black wool, which gave the fabric a very mottled appearance. Their surplus garments were sold, for some time, at the commencement of the eighteenth century, to their less industrious neighbours. The people in the parish of Minnigaff gathered an excrement, which grew on the crags, and with it dyed a purple colour, which they called cocklit, and used also a substance called woodrow, which appeared on the roots of some of the trees, for dyeing a kind of orange colour.

In the 12th year of King George II. it was enacted by a statute (cap. xxi.) "That whereas the taking off the duties upon woollen or bay yarn, imported from Ireland, may be a means to prevent the exportation of wool and of woollen manufactures from Ireland to foreign parts, and may also be of use to the manufacturers of Great Britain, that from the 1st of May, 1740, the same shall be no longer payable; excepting only the duties upon worsted yarn of two or more threads twisted or thrown, or on crewel imported from Ireland." At this time more than 1,500,000 people were employed in our woollen manufacture, and were supposed to earn, one with another, sixpence per day for 313 working days, amounting in all to 11,737,500*l*. The importation of woollen broad cloth, of the manufacture of France, into ports of the Levant, on behalf of British subjects, being not only prejudicial, by discouraging the woollen manufactures of Great Britain, but likewise a means of affording relief to an enemy, and discoveries having been made of British subjects fraudulently shipping from Leghorn quantities of French woollen goods for Turkey, under the denomination of British, to the great detriment of the British woollens, an act was passed in the 23rd year of King George II., by which provision was made against these and other fraudulent practices.

At the commencement of the reign of George III. the woollen manufactures advanced with a rapidity almost unparalleled in modern times as regards other branches of trade. Till about the year 1770 most of the processes were conducted by hand, and the wool was spun by various persons at scattered residences, the manufacturers receiving the yarn periodically from the various spinners—an arrangement causing much loss of time, and giving rise to frequent squabbles between the masters and workmen. In fact, all

the operations were tardy in the extreme—a circumstance more than sufficient to prevent the advancement of the manufacture, by waste in the numerous and tedious processes, and a consequent sluggishness with which a supply answered to a demand. But at this period the spirit of public and private enquiry was happily directed to our deficiencies in the machinery of manufactures, and by gradual steps inventions of great beauty and ingenuity were brought forward to facilitate our commercial acquirements, by which means human labour has been alleviated and abridged, while at the same time a greater number of hands than at any past period have been profitably employed, and an excellent lesson afforded to the lovers of use and wont, which will not speedily be forgotten.

By these improved means the cloth is possessed of greater evenness, less injury is sustained in the dressing and shearing, and greater beauty is imparted to the appearance, while the master, knowing the exact duration of each process, can time his goods for any hour or market, and is enabled to circulate his capital with a degree of dispatch formerly looked upon as quite impossible. A few years ago the late Sir John Throckmorton sat down to dinner dressed in a coat, the wool of which on the same morning was on the sheep's back. The animals were sheared, the wool washed, carded, spun, and woven; the cloth was scoured, fullled, sheared, dyed, and dressed, and then made into a coat. All these complex operations were gone through without hurry, and without deducting from the work any part of the time usually allotted to similar fabrics. So great was the advantage derived from the application of machinery to this branch of industry, that in the year 1800 the produce was three times larger than in the year 1739, though the number of the persons employed was the same in the one year as in the other.

For three centuries a free importation of foreign wool was permitted by our government, and it was not till 1803 that any one thought of laying a duty upon it. This duty was at first comparatively light, amounting only to a halfpenny a pound, and it continued under a penny a pound till 1819, when Mr. Vansittart raised it to sixpence. The impolicy of this measure is very evident when we consider that we were losing our ascendancy in this manufacture, that our export in woollen goods had been declining for three years previous to 1819, and that the competition was becoming every moment more severe. But its effects are best exhibited by its disastrous influence on the foreign trade in woollens, which fell off about a fourth in value almost immediately after the imposition. This tax was much dreaded by our merchants, who, clearly perceiving the state of matters, warned Mr. Vansittart, and represented to him in the strongest terms the fatal influence it must have upon our trade. The following table will set the effects of this mismanagement in the clearest point of view:—

Declared value of woollens exported.

1816	£9,387,455
1817	7,817,360
1818	7,177,355
1819	8,145,327
1820	(duty increased) 5,939,622
1821	(ditto) 5,367,733
1822	(ditto) 6,165,938
1823	(ditto) 5,490,451
1824	(ditto) 5,645,716
1825	(ditto) 6,045,210

The opinions of our merchants ought to have formed the best of all beacons in pointing the course to be pursued by Mr. Vansittart, but even if they had been

silent on the subject the evidence of Mr. Bainbridge before the committee of the House of Commons, appointed in 1820 to inquire into the state of the foreign trade of the country, might have informed him of the true position of the wool trade, and directed him in so momentous an undertaking. When Mr. B. was asked whether he thought that an increase in the means of paying for our manufactures would produce an increased consumption of them in Russia, Sweden, and Prussia, he replied:—"I believe the woollen manufactures in Prussia are in such a state as to be able to compete with us completely; I speak of it particularly, because we are in the habit of having transactions with the United States of America; and I find that a very considerable proportion of fine wools and stuffs are absolutely shipped from the Netherlands, and from ports contiguous, part of which I understand to come from the interior of Germany, and from Saxony in particular; so that a portion of the trade which we have been in the habit of transacting with the United States is finding its way from the north of Europe. I therefore conceive that their manufactures are competing very much with the manufactures of this country; and consequently they would not come to us to receive a supply of those articles which they can purchase from their own manufactures at home.

In 1825, at the earnest and obviously well-founded representations of the manufacturers, Mr. Huskisson reverted to the old system, and it was then wisely enacted, that all foreign wool imported for home consumption of the value of 1s a pound and upwards, should pay a duty of 1d per pound, but when the value of foreign wool was under 1s the duty was reduced to a halfpenny a pound. A boon was at the same time conferred upon the agriculturists by the introduction of a new system with respect to the exportation of British wool, the growers of which were allowed, for the first time, to export it to foreign markets on payment of only a penny per pound.

The importation of wool was therefore very much increased, and with it the consumption of our wools by foreign nations; the wool of our own gradually augmented flocks being inadequate to the demand, and that of Spain having been absorbed by our manufactories, large quantities were imported from Prussia, Saxony, and many parts of the continent of Europe, from which antecedent to this run little had been drawn. The average annual importation for the years 1765-66-67 was 4,211,361 pounds—the average annual exportation of woollens during the same period was 4,630,381l; while the average annual importation of wool for the years 1822-23-24 was 13,884,876 pounds, and the average annual exportation of woollens during that time was to the value of 6,200,548l, showing that the importation of foreign wool was absolutely necessary for the well-being of our manufactures. The importation of forty-four millions of pounds weight in the year ending 5th of January, 1826, must be ascribed as much to the spirit of overtrading, that then affected every branch of industry, as to the reduction of the duty, but the large importations during 1827 gave an additional proof of the necessity of foreign wool to the successful prosecution of almost important department of national industry. Mr. Gott, of Leeds, in his evidence before the Lords' committee, on being asked if he could carry on an export trade to the same extent as at present, if he manufactured his cloth of British wool, replied, that in certain descriptions of cloth "he could not make an article that would be merchantable at all for the foreign market, or even for the home market except of foreign wool." He then proceeds to state, that though the competition is very strong in every

department of the manufacture, yet that foreigners are decidedly superior to us in some descriptions of low cloths. The following question was then put and plainly and emphatically answered—"Speaking of the fine cloth is the competition such as to render an additional duty on the importation of foreign wool likely to injure the export trade? I have no doubt, speaking on my oath, that it would be fatal to the foreign cloth trade of the country. I would further say, that it would be equally injurious to coarse manufactures of all kinds made of English wool. The competition now with foreigners is as nearly balanced as possible, and the disturbing operation of attacks of that description would necessarily enable the foreigner to buy his wool cheaper than we should do it in this country; the result would be that foreigners would, by such a premium be enabled to extend their manufactures to the exclusion of British manufactures of all descriptions." In another part of his evidence Mr. Gott says, "If two pieces of cloth, at 10s a-yard, were put before a customer, one made of British wool, the other of foreign wool, one would be sold and the other would remain on hand; I could not execute an order with it. If any person sent to me for cloth of 7s or 8s a-yard, and it were made of English wool, it would be sent back to me, and I must resort to foreign wool, or foreign mixed with British, to execute that order." In fact the British wool could not be got rid of without a copious importation of foreign wool to aid the manufacturer in his disposal of it, for fine cloths are so much better and more durable in their wear than coarse cloths, that they are coming more and more into demand to the almost total exclusion of the latter. Moreover, the good old custom of making home-spun cloth is reviving among our farmers, and as it is excellently suited for work-day wear, though necessarily of an inferior gloss, such cloths will almost cease to be the concern of our manufactures. The only cloth, indeed, which the bulk of the people will require will be a finer material to form the garb for Sunday and holiday recreation.

The latest tabular accounts on which any dependence can be placed, are to be found in McCulloch's Commercial Dictionary, but of these we are necessarily compelled to offer only an abridgment, and in general nothing but the sum total of his detailed statements. The number of short-woolled sheep in England in 1800 was 14,854,299; the number of long-woolled sheep in England in the same year was 4,133,308. The quantity of British wool in 1800 amounted to 325,269 packs, while in 1808 it had increased to 414,502 packs. The sheep and lambs' wool imported into Great Britain from foreign parts in 1810 was 10,914,137 lbs.—in 1815, 13,640,375 lbs.—in 1820, 9,789,020 lbs.—in 1825, 43,795,281 lbs.—in 1830, 52,313,059 lbs. The increase here observable in 1825 is accounted for above in our notice of the state of the taxes before and at that period. The exports of British sheep and lambs' wool in 1830 amounted to 2,951,103 lbs.; those of woolled and worsted yarn to 1,108,023 lbs. By far the larger proportion of these exports was intended for France and the Netherlands. The number of persons employed in the manufacture is estimated at from 480,000 to 500,000, and their wages at 9,600,000l. The value of the raw material is calculated at 6,000,000l; the total value of the manufactured articles at 18,000,000l, and the interest on capital, sum to replace wear and tear, and manufacturers profits at 2,400,000l. To conclude, much might have been said in the above of a light and amusing nature, but want of space has precluded the possibility, and the romance of history has been compelled to give place to statistical brevity.

## COMPARATIVE STATE OF FARMING.

*(From the Chester Chronicle.)*

The substitution of green crops for fallows, on all but stiff clay lands, has been the greatest of all improvements ever made in agriculture, and has effected as great and beneficial a revolution in it as the introduction of the steam-engine, and of the spinning-frame has done in manufactures. There is abundant evidence to show, that the culture of the turnip, as a field crop, was carried on to some extent in several English counties, in the latter part of the 17th century. But the practice spread only by slow degrees, and it was not till its introduction into the county of Norfolk, in the reigns of George First and Second, when it was prosecuted on a large scale by Lord Townshend and others, that its signal importance became obvious. At the period referred to, the whole north-western part of that county, which has long been one of the best cultivated districts of the empire, consisted of mere sandy wastes, sheep-walks, and warrens, worth little or nothing. They were converted into a highly productive arable land, by enclosing, marling, and the aid of the turnip husbandry, which is as it were the corner-stone of the Norfolk or improved system of husbandry. The same practice that had produced such splendid results in Norfolk—that had made sandy wastes yield the most luxuriant crops of wheat and barley—has been gradually extended with similar effects to many other parts of the kingdom.

It is well known, that on an average, the weight of cattle and sheep has been a good deal more than doubled since about 1750; so that a stock of 5,000,000 head of cattle at present would be more than equal to one of 10,000,000 cattle at that epoch. But the number as well as the weight of cattle having been very materially increased in the interval, the supply of butcher's meat must have increased in a corresponding proportion, or been at least trebled. There has also, owing to the same cause been a very great increase in the product of wool. Taking the increased weight of the carcass and the increased weight of the fleece into account, sheep are believed to be more profitable than at any former period, and for the last few years they have been the most productive species of stock kept in the kingdom.

Mr. Culley, the Northumberland farmer, was of opinion, that "of all animals of whatever kind, those which have the smallest, cleanest, and finest bones, are in general the best proportioned, and covered with the best and finest grained meat; and no doubt they are also the hardiest and healthiest, and most inclinable to feed; able to bear the most fatigue while living, and worth the most per pound when dead."

The construction of new and comparatively smooth and level roads, canals, &c., did much to annihilate the difference in the rate of prices, and conferred on the more distant parts of the country advantages that have been hitherto engrossed by the districts in the immediate vicinity of large towns. A spirit of emulation and improvement has been in consequence universally diffused; routine practices have been thrown aside, and all classes have begun to make the most astonishing efforts to outstrip each other in the career of improvement. Among the principal of these may be specified improved drainage, a better rotation of crops, the general use of bone manure, and the opening of new channels of communication by steam boats. But of all the recent improvements in agriculture, the introduction and general use of bone manure is perhaps the most important. It

first began to be employed on a large scale in Yorkshire and Lancashire, and in the latter particularly its influence has been all but miraculous. Since the use of bones in the wolds of Lincolnshire and Yorkshire have become general, the turnip crop has been in many instances tenfold, and in few less than four or five-fold its former bulk. All the succeeding crops of grain and seeds have been amazingly increased; and upon the four or five shift system there is no doubt the land will go on progressively improving, requiring a less quantity of bones annually, from its increased fertility and power. From the comparative facility with which it is conveyed to rugged lilly tracts it enables estates to be improved and fertilized that must otherwise have remained in a state of nature. Besides large quantities of bone dust imported, bone mills are now constructed in the vicinity of every considerable town for the preparation of this most valuable manure. The application of steam to navigation has given to a voyage by sea the expedition, and almost the certainty of mail-coach travelling, at comparatively little cost; and steam packets for the conveyance of bulky and heavy articles as well as passengers are now established all along the coasts. The markets of London and Liverpool are thus brought as it were almost to the door of the occupier in the remotest districts. Formerly it was the practice for farmers in Scotland to send up cattle and sheep half-fed to the Norfolk fairs, where they were bought by graziers to fatten for the metropolis. But this practice is already much fallen off, and will at no distant period be known only by report. Cattle and sheep are now fattened at home, and are sent up from the eastern ports either alive or slaughtered to London, by steam. The advantages of this are great. The crops of turnips acquire a new and greatly increased value, and their culture is in consequence much extended. Nor does the cost of conveying the full-fed animal to its destination amount to a fourth-part of what it formerly took to convey the half-fed animal to Norfolk. This stimulus will, it is probable, be still farther augmented by the formation of railroads. It is clear indeed, that contiguity to market has already become of comparatively little importance. At no distant period, means will be afforded for bringing the most remote and secluded districts fairly into competition with those that are most favourably situated. The productive energies of both will in consequence be more fully developed; nor is it easy to conjecture what the result may be.

Hennlan, Deabigh.

J. O'NEATH.

IRISH WASTE LAND IMPROVEMENT SOCIETY.— On Tuesday a general meeting of the directors and shareholders of the Irish Waste Land Improvement Society was held at their offices, 57, Old Broad Street, City, in conformity with the terms of their act of incorporation, and also for the purpose of hearing the first report of the society's proceedings. — Staples, Esq., having been unanimously called to the chair, the secretary read the report, from which it appeared that the original capital proposed was 500,000*l*. in 10,000 shares of 50*l*. each, and that 6,975 shares have already been subscribed for, which are enough to enable the society to carry the objects of their incorporation into extensive and beneficial effect. The directors are about to send a deputation of their own body and their secretary to Ireland, to place them in communication with the proprietors of the uncultivated lands who have offered, and to arrange with them negotiations now pending. The report was unanimously received, and there being no other business to transact, the meeting separated.

## REMARKS ON THE PRESENT STATE OF AGRICULTURE.

By C. S. LEFEVRE, ESQ. M. P.

TO THE ELECTORS OF NORTH-HAMPSHIRE.

GENTLEMEN,—After the discussions with reference to the proceedings of the Agricultural Committee, which have lately taken place in Parliament, and the misstatements which have appeared in various newspapers respecting the draft of the Report, which I felt it my duty as Chairman to submit for its consideration; you will naturally feel anxious to know more of that document, and how far the recommendations it contained were likely to conduce to those interests which, as the representative of a purely Agricultural County, I am bound to promote.

These considerations have induced me to give to the public a brief statement of my opinions on the present state of the agricultural interests, founded in a great measure upon the evidence received before the Agricultural Committee; and the substance of that Report which was in possession of the Committee when they came to the determination to report their evidence, without observations to the House."

The Committee commenced its sittings in February last. All petitions which have been presented to this House relative to agricultural distress were referred to it, as a matter of course; and I believe every one of the members in common with myself, entered upon the investigation with an earnest desire to ascertain the true cause of those complaints which resounded from all parts of the country.

It was objected to the Committee of 1833, that too much reliance was placed on the evidence of Land Agents and Corn Factors; and that if persons more directly engaged in agriculture had been examined, some practical measure of relief might have been suggested.

You will observe, by a reference to the Reports, that the Committee of 1836 took an entirely opposite course. The principal witnesses who appeared before it were actually engaged in agriculture; and the early part of the enquiry was devoted to those particular counties from which petitions had emanated complaining most loudly of agricultural distress.

At the different County Meetings which were held in various parts of England, previously to the session of Parliament, several schemes were brought forward for improving the condition of the farmers; and when I unexpectedly found myself Chairman of the Agricultural Committee, it was my earnest desire that every opportunity should be afforded for the development of those plans which seemed calculated to effected so desirable an object.

It is therefore my intention to put you in possession of all the suggestions which were offered to the Committee, with my comments upon them; and if you have felt the least disappointment at the result of our labours, you must not consider me individually responsible for it. The draft of my Report was read to the Committee on Saturday, July 9th, and taken into consideration on the following Thursday, and it was perfectly open to any other member to have moved some resolution by way of amendment to that Report, if the conclusion to which I had arrived on a consideration of the evidence were unsatisfactory to him, and if he was of opinion that the evidence would warrant his proposing some specific measure of relief.

I proceed therefore to explain my views upon this interesting subject; leaving you to draw your own conclusions from the absence of any recommendation; which I attribute, not to any want of consid-

ration in the part of the Committee for the interests of the farmer, but entirely to the impossibility of advancing any proposition which would meet with the concurrence of a majority of its members.

In most of the petitions which were presented to the House this session, the pressure of Tithe, and those local burthens to which the agricultural interest is liable, such as, County Rate, Highway Rate, Poor Rate, formed the great subject of complaint; and the attention both of Government and Parliament having been particularly directed to these points since the report of the Committee in 1833, it may be useful to consider, in the first instance, what steps have been taken towards the alleviation of these acknowledged grievances.

Tithe, from its tendency to check improvement, has operated most prejudicially to the interests of agriculture. But a bill has just passed the legislature for its permanent commutation; tithe in kind has been abolished, and it will henceforth be charged on the estate of the landowner; and the farmer, having once made his arrangements with his landlord, may invest any portion of his capital in the improvement of his farm, with the certainty that he will derive the full benefit of its expenditure.

The County Rate has already been the subject of enquiry before the Committees of the Houses of Lords and Commons, and as a member of the latter Committee, and also of a commission, appointed to consider especially what reductions can be made in that portion of the rate which is expended in prosecutions, I may state, with confidence, there is every prospect, when our recommendations can be carried into effect, of this tax being so far reduced, that its pressure will be but lightly felt by the agriculturist.

The cost of maintaining the highways, whether contributed in kind or in money, has hitherto been borne, in much too large a proportion, by the Agriculturists. The object of the Act of Parliament, which passed during the last session, is to distribute that burthen more equitably between all classes of the community; and I have no doubt, when the provisions of the act come into full operation, and a better system of Road Management is introduced, the roads will be materially improved, whilst the expense of maintaining them will be considerably lessened.

The Poor Rate has hitherto been a great burthen to the farmer, in those districts in which agriculture has been depressed from other causes. Whenever an opportunity offered for obtaining satisfactory evidence of the working of the New Poor Law Bill, the Committee did not fail to take advantage of it; and it is gratifying to learn, from various parts of the country, that the effects of this measure have exceeded the anticipations of its most sanguine advocates. Admitting the last eighteen months to have been a period peculiarly favourable to the trial of this experiment, owing to the low price of provisions and the great demand for labour, the saving under the head of poor rate has been far greater than could have been expected in so short a time, and if any portion of this amount has been spent in additional labour for the cultivation of the soil, a double benefit, must have ensued, both to the labourer and his employer.

But the moral effects of this important measure will be yet more beneficial to the agriculturist than the pecuniary relief; the agricultural labourer is already aware, that under the new system of administering relief, the parish must, in future, be his last, instead of his first resort, and there has consequently, arisen in his mind, a strong desire to find work, and remain in the service of his employer;



this has increased the industry, and improved the conduct of the labourers, and their services have in consequence become far more valuable to the farmer, than the reluctant labour of those, who, from the certainty of obtaining ample assistance from the parish funds, had scarcely any stimulus to exertion.

Notwithstanding this diminution in these local burthens, it appears from the concurrent testimony of many witnesses, examined before the Agriculture-Committee, that in various parts of England the farmer's capital is gradually sinking, and that at the low price of wheat which prevailed a few months ago, it is not possible for him to continue the profitable occupation of his farm. There is every reason, I hope for believing that the pressure of this distress is in a great measure confined to the occupiers of cold tenacious soils, and to those farmers who rely upon their wheat crop as their main source of profit.

In connection with the low price of wheat, I must here mention the great change which has taken place in the agriculture of this country within the last few years. In some counties extensive tracts of wold, fen, and heath land, heretofore considered unfit for cultivation, have been redeemed; in others old grass lands have been ploughed up and that which was formerly sown with flax, or hemp, has been devoted to wheat, and by the introduction of the turnip system of husbandry, the poor light lands are made to produce wheat at a less cost to the cultivator than the more tenacious soils, and thus the clay lands, which were considered the ancient wheat lands of the country, have to enter into competition with the lighter soils, and are no longer able to maintain their superiority. Whilst this addition has been made to the productive soils in the kingdom, its acreable produce has been materially increased by the operation of draining, and the employment of artificial manures; and to these causes, coupled with the circumstance that an unusual breadth of wheat was sown in 1833, 1834, and that its average weight and consequently its capability to produce human food has increased under the influence of three unusually fine seasons, may be attributed that abundant supply which has produced so remarkable a depression in its price. Some witnesses have attempted to account for this excess by importations from Ireland and Scotland, and by a decrease in the consumption of wheat by the labouring classes, in consequence of the increased growth of potatoes. It appears, however, from a return which was presented to the committee, that on an average of the three years ending January 1833, 553,274 quarters of wheat were annually imported from Ireland: and that on an average of the three years ending January, 1836, 761,827 quarters were imported from that country, making an excess in the average supply of the last three years of only 208,553 quarters. The imports from Scotland in the three years ending in January, 1833, were on an average, 48,508 quarters of wheat, and in the three years ending January, 1836, only 23,622: whilst the quantity of wheat shipped coastwise from England to Scotland, on an average of the last three years, has been 31,202, being an excess of 11,972 above the average of the three preceding years.

As there has been little or no importation of wheat from abroad during the last three years, it is evident that our markets have been mainly supplied by wheat of English growth, and by referring to the number of quarters sold in those towns whence the returns regulating the averages are sent to the Board of Trade, we find, comparing the average amount of quarters sold in 1829, 1830, and 1831, with those sold in

1832, 1833, 1834, there is an excess of 713,011 quarters of the latter period over the former; and although there may be doubts whether this return is strictly accurate with respect to the exact number of quarters of wheat sold in any one market, it is considered by some of the best informed witnesses to present a fair measure of comparison between the quantities sold in all the towns included in this return at any two periods since the passing of the last Corn law. There does not appear to be sufficient ground for the supposition that potatoes are used to any considerable extent, as a substitute for wheat bread, by the labouring classes: there can be no doubt, therefore, that the late depression in the price of wheat has arisen almost entirely from a superabundant supply.

The abundant crops of wheat of the last three years may in some measure have made up for the deficiency in price, but wherever that has not been the case, the consequence to the cultivator of heavy soils, where it is the custom to grow wheat after a fallow, and where the fixed charges upon the land, such as rent, rates, &c., for two years are thrown upon that crop, must be ruinous. It is not therefore a matter of astonishment, that those farmers who are unfortunately placed under these circumstances, should be loud in their complaints of agricultural distress, and it is only to be regretted that they have been taught to look to parliament for that relief which can only be obtained by a reliance on their own resources, and by an improved system of cultivation.

In some districts, and more particularly in the case of farmers of small capital, distress has been aggravated by a continuance of high rents, and it is matter of deep regret that owing to the expectations held out by the Corn Law of 1815, that permanent high prices could be obtained by legislative enactment, neither landlords nor tenants were prepared for that satisfactory adjustment of rent which ought to have been made at the termination of the war. There is evidently no want of sympathy on the part of the landowners for the condition of their tenantry. Reductions in rent have been made from time to time, limited as was supposed by the necessities of the tenant; whereas, if considerable abatements had been made at once at that period, less upon the whole would have been required, the capital of the tenant would not have been diminished, and much of the present distress might have been averted.

It has generally been supposed that excessive rents are only injurious to tenants under lease; but a moment's reflection will show that a tenant at will, who, owing to a fall in prices, cannot realize the same amount for his stock as when he entered upon his farm, is quite as dependent upon his landlord as a tenant on lease, and that he will rather submit to the payment of too high a rent, in the hope of a recurrence of high prices, than hazard the loss of a considerable portion of his capital by a sale. Whenever rent begins to encroach upon the capital of the tenant, it becomes impossible for him to attempt any improvement on his farm; nor can he employ the labour necessary for its due cultivation; the land by over-cropping becomes gradually less productive, and is at last reduced to such a state of exhaustion, that it will scarcely repay the expense of cultivation, without leaving any surplus for rent or profit.

These observations are only applicable to those cases where farms have continued in the occupation of the same tenants at war rents, where the land has not been permanently improved by the expenditure of capital either on the part of the landlord or tenant,

or where it has been taken under the expectation that an higher average price of wheat would be maintained than has been realized under the corn laws of 1823. They will not, of course, apply to a large and most respectable class of agriculturalists who farm their own estates. If these individuals have been led by the high prices of agricultural produce during the war to adopt a more expensive style of living, if they have mortgaged their estates, or contracted engagements which they are no longer able to fulfil, their case is altogether without remedy. But if, in common with the great mass of the tenantry of this country, they are suffering merely from that competition to which I have before adverted, or from the late (I may almost say accidentally) low price of wheat, their distress is merely temporary.

The evidence which the Agricultural Committee received from Scotland is abundantly sufficient to prove with what success the cultivation of the soil can be carried on, even at low prices, by an improved system of management: and I alluded to it not for the purpose of drawing an invidious distinction between the farmers of the two countries, but to show with what beneficial results capital and skill can be applied to land, especially where the occupying tenant is relieved from the payment of tithe in kind.

The following statement, derived from the evidence of both English and Scotch farmers, is deserving of attention:

NAME of WITNESS.	Rent, Tithe, and Parochial Burthens.	Annual Average Expence per Acre.	TOTAL.	Quality of Land estimated by ave- rage Pro- duce per Acre in Wheat.
	£ s. d.	£ s. d.	£ s. d.	
ENGLISH.				
Brickwell	1 15 0	3 19 0	5 14 0	30
Rolf . . . .	1 11 6	3 13 6	5 5 0	24
Cox . . . . .	1 15 0	4 15 0	6 10 0	30
SCOTCH.				
Hope* . . .	2 3 9	2 12 0	4 15 9	29
Bell . . . .	1 8 3	2 1 0	3 9 3	28
Robertson	1 19 0	2 16 0	4 5 0	30
ENGLISH.				
Bennett †	0 16 0	1 16 10	2 12 10	16
Crowther.	1 2 0	2 8 7	3 10 7	22

Although the rent paid by the Scotch farmer appears in some instances to bear a higher proportion to the quality of the land than that paid by the English farmers, the difference in the cost of cultivation is far more remarkable; and it will be seen, by an attentive perusal of the evidence given by all the Scotch witnesses, that they turn their attention to the breeding, fattening, and general management of stock to a much greater extent than is usually done by the English farmer. The productive powers of the land are increased by the additional quantity of manure thus raised, and it suffers less exhaustion by

the less frequent recurrence of the grain crop: and to this circumstance their comparative prosperity may in a great measure be attributed. Where the same practice prevails in England, as will be collected from the evidence of Messrs. Bennet and Crowther, it is attended with an equally favourable result.

It appears that the practice which prevails in Scotland, of letting farms on a long lease\* and at a corn rent, has tended very much to encourage agricultural improvement in that country; and a corn rent must be particularly favourable to tenants in those seasons when crops are sufficiently abundant to lower the market price of corn. In years of scarcity, on the other hand, they cannot be of equal advantage to the farmer; and, perhaps, the most perfect system would be, to allow a portion of the rent to vary with the price of that description of corn which forms the ordinary produce of the farm, and the remainder to be a fixed money payment.

In many parts of England there exists a strong prejudice against long leases, and in those districts there does not appear to be any want of confidence between the landlords and tenantry, as farms are frequently held by one family for generations without a lease. But although, in cases where no extraordinary outlay is required on the part of the tenant, leases may not be requisite; it must be conceded, that without the security which they necessarily afford, a tenant would hardly be justified in making any large investment of capital in the permanent improvement of his farm; and on that account leases are well deserving of encouragement in those parts of England where the land is impoverished by previous bad management, or where it requires extensive draining to make it productive.

On the subject of draining, the Agricultural Committee received very interesting evidence both from England and Scotland. In Kent and Sussex, and several other counties, the clay soils have been much improved by the use of Pearson's draining plough. But the system of thorough draining adopted in Scotland is very far superior, and is an improvement well worthy the imitation of English farmers. The most astonishing effects, however, appear to have been produced by a new agricultural implement, the invention of Mr. Smith, of Deenster, near Stirling, called the sub-soil plough. This machine is a necessary accompaniment to draining, but when that is done effectively, it seems calculated to render the most sterile and unproductive soil fertile and profitable. There is no difficulty more fatal to the practical farmer than that of cultivating a thin shallow soil with a stiff retentive subsoil. Whatever pains may be taken with the tillage of the former—however expensive the dressing which may be used in its cultivation—the nature of the sub-soil will always counteract its beneficial effects. Many persons have endeavoured, by trenching, to obviate this difficulty; but where the sub-soil is of that sterile nature, and requires exposure to the atmosphere for so long a period to make it productive, few farmers have been bold enough to repeat the experiment. Mr. Smith's most ingenious invention (which is admirably described in his evidence, to which I beg to refer you for a more complete explanation of its principle,) by breaking the sub-soil without bringing it to the surface, renders it pervious both to air and water. The same chemical changes which take place in a fallow, owing to its exposure to the action of the wind and rain, are thus brought into operation in the sub-soil, whilst the

\* Mr. Hope's rent is a corn rent, calculated with wheat at 50s. per quarter. Messrs. Hope, Bell & Robertson have not only been farming profitably for the last three years, but have spent large sums in furrow draining.

† Tithe free.

\* Usually for 19 or 21 Years.

upper is in the ordinary course of cropping, and when, after a few years, by a greater depth of ploughing, the sub-soil is mixed with the upper, it is found to be so completely changed in its nature, as to be capable of producing every description of corn. The advantage of this system of husbandry are so apparent, that no farmer will be at a loss to appreciate the merit of the invention. I believe it to be quite as important an improvement in the management of clay lands as the introduction of the turnip system has been with reference to the light soils; and, as the experiment has been tried for twelve years, and with uniform success, I cannot but anticipate its ultimate adoption in those districts of England, where, from the cold retentive nature of the soil, the greatest extent of agricultural distress has hitherto prevailed, and where draining is essential to preserve them in a state of cultivation.

The principal suggestions for the improvement of agricultural interests offered to the Committee, were:—the introduction of poor laws into Ireland; the allowing farmers permission to malt their own barley for consumption on their farms, free of duty; and a reduction of the malt duty. The remission of the duty on foreign seeds, was also proposed as a measure of relief, in particular districts; but the effect of such an alteration of the law, would be to derange the culture in many counties where such produce is raised, and where it furnishes, at this moment, a great demand for labour.

The condition of the poor in Ireland is so intimately connected with the state of its agriculture, that the latter has formed a distinct branch of the enquiry assigned to the Irish Poor Law Commissioners; and for this reason, the Committee did not consider it necessary to examine many witnesses from that country. It appears, however, that the tenantry of Ireland has not retrograded within the last three years, and that the condition of the larger farmers is decidedly ameliorated; considerable improvements have been made in the breed of sheep and cattle, by crossing them with the best English stock; and the landlords have exerted themselves in draining and reclaiming bog land. In some parts of Ireland, in proportion as the farmers have become wealthy, they have given up tillage, laying down their land in pasture; and the extreme humidity of the climate offers every inducement to the adoption of this change of system.

In the counties of Armagh, Tyrone, and Cavan, according to the evidence of Mr. Blacker, who is the manager of very considerable property in those districts, the condition of the tenantry has been greatly improved. This may be attributed in a great measure to the substitution of the flax for the wheat crop, and to the high price of flax, owing to the failure of that crop, on the continent last year. It appears to have been a common practice in the north of Ireland to cultivate a succession of corn crops until the land became exhausted, and then to allow it to remain in grass until, by a certain degree of rest, it had regained its fertility; but this practice has happily given way to a more systematic rotation of crops, owing to the encouragement given to the tenantry to rely more upon the green crops and the profits of stock, than on the cultivation of corn. It is impossible, however, that agriculture as a system can be carried on in Ireland until the farms are consolidated, and provided with buildings necessary to the successful management of land.

In reply to those persons who complain that the want of Poor Laws in Ireland gives an undue advantage to the Irish farmer, who is thereby entitled to undersell them in the English market; and that ow-

ing to the miserable condition of the labouring classes less wheat is consumed there in proportion to the population, and a greater surplus remains for exportation to this country; it may be observed, that even supposing the absence of poor rate, not to be made up for by an increase of rent, the Irish farmer has many difficulties to contend with to which the English farmer is a stranger; and, however desirable on other grounds the introduction of Poor Laws into Ireland may be, it by no means follows that its effects would be to diminish the supplies of corn or cattle from that country, when the natural fertility of its soil is more fully developed by a judicious application of capital in an improved system of husbandry.

With respect to the second proposition: the privilege of malting of barley free of duty does not appear, even according to the calculations of its most intelligent advocates, of sufficient importance to render its adoption expedient, at the risk of rendering the collection of the revenue less secure, as shewn by the testimony of Mr. Hetherington; to say nothing of the expense which the employment of a great many additional officers would entail upon the country, and the dissatisfaction which such an inquisitorial supervision on the part of the Excise would naturally excite, which are in themselves insurmountable objections to the trial of the experiment.

It is impossible not to admit that any reduction of the malt duty, which cause an increased demand for barley would operate most beneficially on the interests of agriculture. It would not only encourage draining, and the improvement of clay-land, from which most important results may be anticipated, but it would check the over-cultivation of wheat, lead to a better rotation of crops, and also to a greater reliance on the profits of stock. The reduction of the malt duty is, however, so completely interwoven with the question of the Corn Laws, that I should not have felt justified in suggesting any proposition with reference to this important subject, were it not for the evidence of some of the best informed persons connected with the corn trade, and some of the most intelligent agricultural witnesses, who agreed in recommending an alteration in the existing Corn Laws.

It appears from the Fifteenth Report of the Commissioners of Excise Enquiry, confirmed to a great extent by the evidence of Mr. Dunlop, formerly one of the most extensive distillers in Scotland, and now residing at Wandsworth, that with a lower rate of duty, a much greater quantity of malt would be used in the manufacture of beer and spirits; that many of the oppressive regulations which at present interfere with the process of malting might be dispensed with; that an increased quantity of barley, now fraudulently malted, would be brought to charge, and that the revenue could, at no distant period, regain all that it might at first lose by the reduction of the duty. It is therefore well deserving of consideration, whether, if greater facilities could be given to the trade of the maltster, there is not every reason to expect that (provided the price of barley was not enhanced) the price of malt would be reduced below the amount of duty remitted; and barley of an inferior quality would thus be malted for the purpose of feeding cattle; which is an advantage not calculated upon by the Commissioners.

The number of quarters of malt made in the year ending January 5, 1836, were,

In England	- - - - -	1,509,357
Scotland	- - - - -	57,114
Ireland	- - - - -	224,265

5,361,306

Allowing for a small increase in bulk during the process of manufacture, it would require 5,000,000 quarters of barley to produce the present amount of revenue, at 20s. 6d. per quarter; and of course the same number of additional quarters to produce the same amount of revenue at 10s. 4d. per quarter. The Commissioners, however, have stated with great justice, that if this demand for barley should tend to increase its price, the increased consumption which they anticipate as likely to result from a reduction of duty would be counteracted. This can only be obviated by an extensive importation of foreign barley; and as the present price of barley appears to be sufficiently high to afford the farmer a fair remuneration for the capital employed in its cultivation, it is equally important to him, as well as to the public, that the scale of duties on the import of foreign barley should be so regulated as to admit the supply the necessary for so increased a consumption, without raising its price above the present level. In the year 1831, when the average price of barley was 38s. per quarter, and the rate of duty 6s. 4d., less than 370,000 quarters were entered for home consumption; and the effect of that demand for barley was to raise the price of it, at Hamburg and Dantzic to 22s. and 18s. 4d.; 14s. 7d., and 14s. 1d., being the average price of barley for the ten years preceding. The cost of transport, &c. at that time must have been 9s. or 10s. per quarter; and as there is always great risk in carrying barley, owing to its liability to heat during the voyage, it is not reasonable to expect that it can be brought to this country on much more favourable terms: whatever, therefore, may be the extent to which eventually the growth of barley may be increased in this country, it is evident that during the time which it will require to improve the quality of clay lands a considerable quantity must be imported from abroad; and if the demand is to be supplied without raising its price, it will be necessary to reduce the rate of duty at which foreign barley can be entered for home consumption.

With a view to illustrate the effect such a measure would produce upon the interests of agriculture, let us suppose that a demand is created for only 2,500,000 additional quarters of barley in England, the produce of from 600,000 to 800,000 acres; this land would necessarily be withdrawn from the cultivation of wheat; and assuming that 600,000 acres, producing at present 20 bushels of wheat per acre, to be so withdrawn, and that only in very favourable seasons (which is quite borne out by evidence), the population of this country is independent of foreign supply; it is clear that it will be necessary to import a quantity of wheat annually, never less than 1,500,000 quarters, for the consumption of this country.

Assuming, therefore, that the necessary consequence of a great increase in the demand for barley would be to induce farmers to cultivate that description of corn on the inferior soils, and to confine the growth of wheat to land of a superior quality, it would be no longer necessary to retain the same amount of duty on foreign wheat for the protection of the farmer. But the present enormous amount of the duty on malt constitutes in itself (more especially since a diminution has taken place in local taxation,) one of the principal grounds on which the British agriculturist can establish his claim to protection from foreign competition; and considering that the effect of all restrictions upon foreign importation must be to raise prices at home, which is directly at variance with the interests of the consumer, it is obvious that any attempt to re-

tain a monopoly, without the means of justifying it, would be to place in peril not only the present system of Corn Laws, but any system whatever which may be designed for the protection of the agricultural interests. But if, apart from these considerations, it were attempted to reduce the malt duty one-half, without any alteration in the existing Corn Laws, the effect would be to create such a demand for barley as would raise its price (until fresh lands could be brought into barley cultivation) to an average at which foreign barley might be admitted at a mere nominal duty. The sudden admission of any great quantity of barley, at any one time from abroad could not be otherwise than prejudicial to the farmer; for even supposing that all that might be admitted under these circumstances should be unfit for the use of the malster, it would be purchased by the miller and distiller, and compete, most injuriously to the interests of the producer, with the second and third rate qualities of barley; and after the price of barley had been reduced by an extension of its cultivation, that portion of the agricultural interest would alone be gainers (during, that is to say, the existence of their present leases) who grow wheat upon good soils, in whose behalf the Legislature is not called upon to interfere. On these grounds, I venture to recommend that the present scale of duties on the import of foreign corn be reduced, and one-half the malt duty remitted at the same time; a measure calculated, in my opinion, not so much to remedy existing distress, as essentially and permanently to improve the interests of the agriculturists.

I am quite aware of the jealousy with which a proposition of this nature will be received by a numerous body of farmers; and to those gentlemen I would address myself, whilst I endeavour to shew that the Corn Law of 1828 has been a delusion, and that under an altered system, an equally high average during a series of years would in all probability be maintained. The avowed object of the Government who proposed that law was to secure a steady range of prices, varying (in wheat) from 60s. to 64s.; whereas it will be seen by a reference to the returns which have been laid before Parliament, in six years ending January 1836, the average price of wheat has not exceeded 54s. 7d.; and on an average of the last three years, 46s.; a variation in price that must have been ruinous to all farmers who have contracted engagements on the faith of the present law.

The following table will shew the rate of duty at which corn was entered for home consumption, from 1828 to 1834, inclusive; since which period there has been no importation of foreign corn worth recording:—

Date.	Total Quantity Entered.	Date of Entry.	Rate of Duty.	Quantity entered at Lowest Duty.	Quantity entered at Duty below 17. 1s.
1828	748,749	December ..	s. d.	724,228	725,649
1829	1,260,633	{ January & } { February }	1 6	502,151	1,204,027
1830	1,191,381	{ August & } { September }	2 8	1,072,582	1,150,947
1831	1,088,751	March .....	1 0	359,076	1,080,518
1832	161,982	{ July, August, and } { September }	23 8	126,421	None.
1833	1,601	.....	31 8	1,001	None.
1834	168	.....	37 8	168	None.
Total Qrs.	4,754,761	.....	..	2,785,630	4,461,141

It appears from this statement, that in the four

years ending January 1832, 4,592,607 quarters were entered for consumption, out of which 2,658,037 were admitted at a duty averaging only 1s. 5d. per quarter; and that in seven years ending January 1835, the latest period to which these accounts have been completed, 4,758,762 quarters were admitted, of which only 297,620 quarters paid a duty above 21s. per quarter. Mr. Sandars, an eminent corn-merchant at Liverpool, who had previously been examined at great length before the Committee, in a letter addressed to myself as Chairman, dated May 16, 1836, recommends that, "the pivot price of wheat should be reduced 10s. per quarter. As a friend to both landlord and tenant, I should rejoice to see public expectation promptly and fairly met. If no anticipatory measure be adopted, and a period of excitement and high prices should arrive, there will be hasty and probably bad legislation on the subject." In another part of the same letter he adds, "The main defect of the present law is, that though it gives moderately high, and at the same time steady prices under import, it does not prevent them going ruinously low in periods of abundance; it therefore appears to me to deserve consideration, whether at any time the duty on wheat should ever be permitted to go below 4s. or 5s. per quarter. The amount of that duty might be kept as a reserved fund for a bounty on export, when prices fell to a given low rate. If the holder of bonded wheat have the option of a shilling duty, it is manifest that when the wants of a country are imperative, he will never pay 5s.; a minimum duty of 5s. therefore will be no tax on the public, but a reduction of his profits. The objection to the average system on the grounds of frauds said to be practised would be removed by striking out London, Liverpool and Wakefield from the list of towns now making returns, and substituting a larger number of others. It is only in those three large markets that fraud has the slightest chance of being practised with impunity and success."

Nothing can be more fruitless than any attempt to ascertain what may be considered a remunerating price to the farmer. In 1814, 96s. and 80s. per quarter were considered the lowest average prices at which wheat (vide Report, Committee on Corn Laws,) could be grown. We now find that it may be grown to a profit, according to the testimony of some persons, at 40s.; and several witnesses of great intelligence concur in considering a price varying from 50s. to 56s. to be quite sufficient. Every thing, however, must depend upon the skill of the farmer, the productive quality of the soil which he cultivates, and the rent he binds himself to pay.

Were the suggestion of Mr. Sandars adopted, the probability is that an average varying from 50 to 56 might be sustained without difficulty, and if accompanied by the repeal of half the malt duty, and a certain demand created for wheat from the Continent, it is more than probable that this average would be greatly augmented; at the same time it would afford a stimulus to the manufacturing interests, insuring increased prosperity to the operative classes, and a greater consumption of all other articles of agricultural produce. But let it not be supposed that it is for the interest of the farmer that the price of corn should be very high. It is infinitely more important to him that it should be steady, with as little fluctuation as possible beyond what must always necessarily follow from the effects of favourable or unfavourable seasons, and that the labouring population should be abundantly supplied with the first necessary of life, insuring as this must do, a lower rate of

wages and a better rate of profit, both to the agriculturist and the manufacturer, whose interests are indissolubly united.

The tendency of the present Corn Laws has been to raise prices unnaturally during years of import, and at the same time to expose the agriculturist to a large influx of wheat (which happened in 1831) immediately before the harvest, when the price is usually the highest; but this supply is not in the smallest degree regulated by the wants of the public; it is probably the accumulation of months, which the merchant has been induced to withhold until it can be introduced at a mere nominal duty.

In the event of a favourable harvest succeeding a large admission of foreign corn, the farmer has to struggle against a depreciation of his produce, beyond what is the natural result of an abundant season; on the other hand, if the harvest prove unfavourable, the natural rise in price which should compensate him for the deficiency in his crop, is checked by the presence of a large quantity of foreign corn in the home market.

If the fluctuating scale of duties be continued, and the price lowered 10s. per quarter, the duty would be fixed at 4s., when the average price of wheat was 63s., and it would so far be an approximation to a sound principle; but even with that alteration the scale of duties would be unnecessarily high.

By a reference to the prices of wheat at Dantzic and Hamburg\*, the former being the port whence wheat of the finest quality, and the latter whence the greatest quantity of inferior wheat is imported, it will be seen that the decennial averages were 52s. 10d. and 30s. 2d. respectively. If we add 7s. for the expense of freight, insurance, &c., which although below the calculation of Mr. Sandars, is above that of other experienced corn-merchants, who appeared before the Agricultural Committee, we shall have 39s. 10d. and 37s. 9d. as the lowest prices at which Dantzic and Hamburg wheat could be sold in England, duty free. But the effect of a demand for

\* Prices of Wheat at Dantzic, Hamburg, and Rotterdam, during the following periods:—

Years.	DANTZIC.		HAMBURGH.		ROTTERDAM.	
	Wheat.		Wheat.		Wheat.	
	s.	d.	s.	d.	s.	d.
1826	21	8	20	0	25	6
1827	22	3	26	0	39	1
1828	40	2	35	0	38	6
1829	43	10	40	0	43	11
1830	39	3	35	0	43	9
1831	45	6	41	0	52	3
1832	38	0	35	0	40	7
1833	30	0	26	0	32	7
1834	25	0	22	6	31	9
1835	22	9	21	6	29	11
	32	10 dec. av.	30	2 dec. av.	37	9 dec. av.

Price of Barley at Hamburg during the same period.

Years.	Yearly Average.
1826	11s. 3d.
1827	18 0
1828	16 0
1829	16 6
1830	17 0
1831	22 0
1832	18 4
1833	14 0
1834	12 0
1835	15 0

wheat in this country in 1828, 1829, 1830, 1831, was to raise the price of wheat at Dantzic more than 9s., and at Hamburgh more than 7s. per quarter above the decennial average, which would give us as the prices of wheat, duty free, from those two ports, 49s. and 44s. If we look to the prices at Rotterdam, during the same period, we find a decennial average of 37s. 9d., and the average of 1828, 1829, 1830, 1831, 41s. 8d.

Supposing, therefore, the charges for freight, &c. to England not to exceed those to Rotterdam, we arrive precisely at the same conclusion, and it would not have required a higher duty than 10s. per quarter to have secured as high an average price as has been maintained, under the present Corn Laws, during the last six years.

The finest malting barley is brought down the Elbe from the interior of Germany to Hamburgh, whence it is exported to this country. The decennial average of barley ending with 1835 was 16s. per quarter; the price in the year 1831, the only year in which there was a considerable importation into this country, was 22s. The risk attending the transport of barley must always be considerable, and it is not too much to assume that the freight, insurance, &c. will amount to more than 7s. per quarter, which will make the price, duty free, in England 29s. per quarter, whenever there is a steady demand for barley in this country, so that a fixed duty of 3s. or 4s. would be a sufficient protection against foreign competition in barley.

There are two objections which have been urged against a fixed duty which ought not to pass unnoticed: the one is, that if there were a constant demand for corn in England, it would effect so great an encouragement to the foreign growers, that we should be exposed to an inundation of foreign corn at a price far below the present prices on the continent. The other, that in seasons of scarcity, when the price was exceedingly high, the duty could not be levied.

It is fair to conclude that the prices of corn at the outports on the continent have not been more than remunerating, or there would have been an abundant supply from the interior to have reduced them to their proper level, so that no very serious error will be committed, if our calculations are based upon the average of the continental prices at those ports for a long series of years. In seasons of scarcity it is an undoubted fact, that it would be impossible to levy a duty of 10s. per qr if the price of corn should rise to an extravagant height; but under these circumstances it is clear that as far as the interests of the farmer are concerned, a duty would not be required, and the government might be allowed to dispense with it for a short period, under certain restrictions. The case would be a special one, for which no rule could be provided; for under ordinary circumstances, if the ports were always open at a fixed duty, corn would flow in gradually from abroad in proportion to the demand, and prevent any sudden or unnatural rise in price.

It will be collected from these observations, that my own opinion is decidedly in favour of a fixed duty: but if it were found impossible to overcome the prejudices of those who entertain other views, the nearest approximation to a fixed duty will be the system next to be preferred;\* and whatever alte-

\* Another plan, formed somewhat after the model of the Corn Law of 1804, and possessing all the supposed advantages of a fluctuating duty, is well deserving consideration, and appears calculated to secure greater steadiness of price, viz.—

When the price of Wheat is above 60s.—duty on

ration is adopted should be accompanied by a remission of at least one half the present duty on Malt.

Had the duties on foreign corn been thus regulated in 1828, we should never have experienced the high prices which prevailed in our markets in the three following years, and there would not have been the same inducement to the undue cultivation of wheat, which, coupled with the favourable nature of the harvests in subsequent years, produced so alarming a depression in its price.

It is in vain to say that with an average price, not much exceeding 50s., any considerable extent of land will cease to be cultivated; the energy and skill of the British farmer will enable him to overcome this difficulty; and as the population of the country increases, and the consumption of malt, hops, and animal food becomes greater, in proportion as the price of bread is reduced, an improved system of cultivation will be introduced, yielding a higher profit to the tenant, and a better rent to the landlord; and as the surplus population of the rural districts becomes absorbed by increased demand for labour at our manufactories, the farmer will be no longer driven from the use of mechanical power in reducing the costs of cultivation, by the threats and intimidation of an unemployed peasantry.

Before I quit this subject, I should state that two corn inspectors were examined by the Committee, for the purpose of ascertaining whether an improved mode of taking the averages might not be adopted, by obliging the seller to make returns to the inspector, as well as the buyers. There does not, however, appear to be sufficient grounds for making this alteration, which would be productive of serious inconvenience, without a corresponding benefit. The proposition of Mr. Sandars, which has been already quoted, would remove all chance of fraud; but it is doubtful whether so fair an approximation to the true average price would be obtained, if the three most important markets in England were excepted from the weekly returns. The Committee also inquired into the Scotch mode of striking the fiars; but the system, upon examination, did not turn out so perfect as it had been represented to be.

It was impressed upon the Committee that it would be of infinite importance to have accurate statistical information at some of the Government offices, for instance at the Board of Trade, of the quantity of land in each parish employed in grain cultivation, stating the number of acres sown with wheat, barley, and oats, and the probable produce of the next harvest. I fully concur in this opinion; and I conceive that such a plan may be advantageously grafted on the present division of England into parochial unions, and may also be adapted to the Scotch counties, and baronies in Ireland, and that intelligent officers could be found who might furnish this information at a comparatively trifling expence.

The publication of these returns periodically in the London Gazette, for the information of persons engaged in the corn trade, would tend to lessen speculation, and to regulate the supply according to the demand, thereby reducing those elements of fluctuation in price which are so fatal to the interests of the farmer.

Several petitions were referred to the Agricultural Committee by merchants, and others interested in the corn trade, at Liverpool and Plymouth, praying for a renewal of the "Grinding Act," (5 Geo. 4. c. 70.)

Foreign Wheat, 5s.; above 50s. and not above 60s.—15s.; below 50s.—20s. When the price of Barley is above 30s.—duty on Foreign Barley, 2s. 6d.; above 20s. and not above 30s., 5s; below 20s.—15s.

or, that for every barrel of British flour exported the merchant should be entitled to a certificate, authorizing him to release, at any future time, as much foreign grain as could be liberated by the amount of duty payable on the import of a barrel of foreign flour at the time when the export was made. It appeared from the evidence of those witnesses who were examined on this subject, that America alone supplies upon an average a million barrels of flour annually to the West Indies, and South America; and that owing to the advantage the English vessels possess of back carriage when they go out for sugar and colonial produce, flour is not unfrequently sent in large quantities from America to Liverpool, for the purpose of shipment to the West Indies in British vessels. There is every probability, therefore, that if the English merchants could compete with the Americans in the flour trade, a very large export would be made from the English ports direct to the West Indies, and especially during the winter months, when the Baltic ports are closed. There also appears to be a considerable export, annually, of biscuit and flour from Hamburgh, Dantzic, and Copenhagen to Newfoundland; and it is found that all ships which take in their cargoes at those ports, supply themselves at the same time with beef, pork, and other provisions, and with various articles of German manufacture, all of which would be purchased in this country with great benefit to the English farmer and manufacturer, if the English merchant were enabled to make use of foreign flour in the manufacture of biscuit, or by means of a bounty to export British flour at the same price as foreign flour.

Any plan which would thus relieve the country of its surplus corn in abundant seasons, must tend to promote that steadiness of price so desirable to secure to the utmost possible extent.

Some persons, however, have objected to the renewal of the Grinding Act of 1824, owing to the supposed difficulty of ascertaining the exact quantity of flour to be returned into warehouse, which must vary in different seasons with the weight of the corn, and although fraud may be scarcely practicable, it might diminish the confidence of the farmer in the amount of protection afforded him by the Corn Law, which would in itself be a great evil. There can be no objection to corn being ground under lock, and one of the witnesses, Mr. Freen, admitted that he was not unfavourable to that plan, although he stated that it could be done cheaper by substitution.

In my opinion, the plan suggested in the Liverpool petition might be adopted without prejudice to the agricultural interest, more especially if it were to accompany the proposed alteration in the corn laws. It is evident, as the flour exported will have to compete with American flour, it will not answer the purpose of the merchant to export any but the produce of the best wheat; and Mr. Saunders has justly stated, that, "It will be a bounty on exportation when prices are very low, and if that had been the law, we never should have had wheat at 36s a quarter."

There was one other subject very frequently urged upon the attention of the Committee, during the progress of this investigation.

The existence of distress in the agricultural districts, was in a great measure attributed by several most respectable witnesses, to the resumption of cash payments in 1819, and to an undue contraction in the currency, which, with the exception of those years in which there was an extensive issue of one pound notes, has prevailed since that period. It was stated that wheat, when at 35 the bushel, had attained

the highest price it can be expected to command on an average of years under the present standard; that the prices of barley and other grain have been enhanced by unfavourable seasons and other accidental circumstances; that the high price of wool is to be attributed less to the demand which has been created by the prosperous state of our manufactures, than to the rot which occurred five or six years ago, and that we must expect the prices of all other agricultural produce, at no distant period, to sink to the level of wheat. It was also asserted that the farmer is deprived of that accommodation from the country banker which he so extensively enjoyed during a depreciated currency, and is on that account less able to contend against the low price of corn, or any other untoward circumstances.

These opinions were met by contradictory testimony, and after the most patient attention to the evidence which was adduced in their support, I was unable to arrive at the same conclusion. Whatever may have been the consequences of the Act of 1819, aggravated, as they undoubtedly were, by the sudden transition from war to peace, and by the restoration of manufactures on the continent; however seriously this extensive change in the monetary system of the country, may have affected all persons who were bound by fixed engagements, landlords with settled property, tenants under lease, and debtors of every description, these difficulties are rapidly passing away; and the only question now to decide is, whether any depreciation of the currency should be attempted, with a view to the improvement of the present condition of the agricultural classes. As far as the landlord would be affected by such a measure, it is evident that unless his rents were raised in the same proportion as the prices of all articles of consumption, he would decidedly be a loser by the change. The occupier of the soil, if he had the good fortune to be under lease at a fixed money rent, might gain to a certain extent, although entirely at the expense of his landlord, but in no other respect would it be an advantage to him, unless with regard to those trades, which owing to the monopoly they enjoy in agricultural villages, are still enabled to maintain the prices of certain articles, which form a small portion of the outlay of the farmer, above their natural level. The costs of cultivation, and the wages of labour, would eventually rise in proportion to the extension of the circulating medium; and, were this not the case, the blow would fall with the greatest weight on the most numerous and not the least meritorious class of those engaged in agriculture, the labourers in husbandry, a consequence which must be deprecated by all persons anxious for the general welfare of the community.

It has been shown, by the most satisfactory testimony, that where a farmer is in possession of capital, whether in England, Scotland, or Ireland, he has no difficulty in obtaining pecuniary assistance; nor would it be beneficial to him, that any measure should be adopted which would afford encouragement to bankers to grant more liberal accommodation on inadequate security. This question, however, has been so long settled, that it cannot again be entertained without serious danger to every interest in the State; and, it is impossible for one moment to suppose that the legislature would sanction an alteration, which derange all the existing contracts in the country, more especially at a time when, although the agricultural interest is partially depressed, trade and manufactures are flourishing, the labouring classes prosperous and well employed, and enjoying a greater command over the comforts and necessaries of life, than at any former period. It is true, that it might

lessen in some degree the weight of taxation, but this relief would not be enjoyed exclusively by the farmer, and could only be purchased at the expense of the public creditor, and at the entire sacrifice of national good faith.

Having now placed on record the opinions contained in that report which was not fortunate enough to meet with the approbation of the Committee, with the addition of such observations as appeared necessary for the more complete illustration of my argument; I consider it due to others, as well as to myself, after the unfounded statements which have been circulated in some of the public journals, to add that the report was drawn up without consulting any member of the Government, or any of those gentlemen with whom I had the honour of being associated in this protracted investigation.

To some of my agricultural constituents I fear it may give dissatisfaction, because it does not point out a specific remedy for existing distress. To others it may cause alarm because it proposes an alteration in those laws which have long been considered the key-stone of agricultural prosperity. But however my friends may differ from me on these points, I do not feel the less inclined to place my opinions before them, firmly believing them to be founded on just principles, and to a great extent borne out by the evidence received before the Agricultural Committee.

In conclusion, I would recommend those persons who feel disposed to question the utility of an enquiry which is said to have been productive of such barren results, to read with care and attention the evidence which has been collected. It is true that it contains nothing to flatter with delusive hope the farmer who has neither skill, energy nor capital. But to one who takes the conduct of a farm, with a determination to apply to it those improvements, which the progress of science has extended to agriculture: and who, possessing industry and intelligence, has also the means by which alone they can be made available to him, the perusal of this evidence will afford abundant encouragement. Still greater benefit will be derived from the enquiry, if it does but convince any numerous class of agriculturists that the best thing which the legislature can do for them, is to free their trade from the shackles imposed upon it by impolitic laws—that the relief afforded by the new Poor Laws, and the Tithe Commutation Act, is the principal benefit which can be derived from Parliamentary interference—that any attempt to keep up artificially the prices of agricultural produce, for any length of time, must lead to delusion and disappointment; that looking forward in future years to a moderate price of wheat, the farmer must regulate all his contracts accordingly, and instead of constantly appealing to the legislature for succour, he must rely upon his own industry, which, under Providence, will not fail him. But above all things, he must regard with suspicion, any attempt, come from whatever quarter it may, to separate the interests of the farmer from those of all other classes of the community. “They must wax and wane together;” and it is impossible for the commercial, manufacturing, and trading classes to enjoy a long continued increase in wealth, and the agricultural interest not to have its full share in the general prosperity of the country.

To you, gentlemen, who are so deeply interested in the consideration of this subject, I offer these remarks freely and without reserve, knowing them to be quite consistent with my own experience as a practical farmer, and believing them calculated to benefit that important class of the community, with

which, by every feeling of individual interest and political consideration, I am proud to be connected. I entertain no gloomy anticipations for the future, even with regard to those districts where distress unfortunately exists at present. The remedy is within the farmer's own power; industry and good management on his part, combined with a generous forbearance on the part of his landlord, will produce that result which it is in vain to seek (because not in their power to grant) from the government or the legislature; and if I can only succeed in convincing you of this one fact, I shall be amply rewarded for the anxious share which I have had in the labours of the Agricultural Committee.

With every wish for your future welfare, and that the prosperity of the farmer, and the comfort and independence of the labourer may progressively increase,

I remain, gentlemen,

Your obliged and faithful servant,

CHARLES SHAW LEFEVRE.

London, Aug. 1836.

BREEDING FLOCKS. — “In the *Annales de l'Agriculture Française*, vols. xxxvii and xxxviii, some very interesting experiments are recorded, which have lately been made in France, on the Breeding of Live Stock. M. Charles Girou de Buzareigues, proposed, at a meeting of the Agricultural Society of Séverac, to divide into two equal parts so that a greater number of males or females, at the choice of the proprietor, should be produced from them. Two of the members of the society offered their flocks to become the subjects of his experiments, and the results have now been communicated, which are in accordance with the author's expectations.—The first experiment was conducted in the following manner:—He recommended very young rams to be put to the flock of ewes from which the proprietor wished the greater number of females in their offspring; and also, that during the season when the rams were with ewes, they should have more abundant pasture than the other; while to the flock from which the proprietor wished to obtain male lambs chiefly, he recommended him to put strong and vigorous rams, four or five years old. The following tabular view contains the result of his experiments:—

Flock for female Lambs. Age of the mothers.	Sex of the lambs.		Flock for male Lambs. Age of the mothers.	Sex of the lambs.	
	Males	Fem.		Males	Fem.
Two years . . .	14	25	Two years . . .	7	3
Three years . . .	16	29	Three years . . .	15	14
Four years . . .	5	21	Four years . . .	33	14
Total . . . . .	35	76	Total . . . . .	55	31
Five years and older . . . . .	18	8	Five years and older . . . . .	25	24
Total . . . . .	53	84	Total . . . . .	80	55

“The general law, as far as we are able to detect it, seems to be, that when animals are in good condition, plentifully supplied with food, and kept from breeding as fast as they might do, they are most likely to produce females. Or, in other words, when a race of animals is in circumstances favourable for its increase, Nature produces the greatest number of that sex which, in animals that do not pair, is most efficient for increasing the number of the race. But if they are in a bad climate, or on a stinted pasture, or if they have already given birth to a numerous offspring, then nature setting limits to the increase of the race, produces more males than females. Yet, perhaps, it may be premature to attempt to deduce any law from experiments which have not yet been sufficiently extended. M. Girou is disposed to ascribe much of the effect to the age of the ram, independent of the condition of the ewe.”



## NORTHAMPTONSHIRE FARMING AND GRAZING SOCIETY.

The annual show of this society took place on Wednesday, Sept. 14, on Earl Spencer's farm, at Chapel Brampton. The day, notwithstanding an unpromising morning, was pleasant, and a large and very respectable company assembled on the ground. The show of cattle was very short in comparison with the shows of previous years, owing to the great scarcity of keep. The sheep on the contrary were excellent and numerous.

At four o'clock, a highly respectable party, consisting of 114 persons sat down to dinner at the George Hotel, in this town, C. Hillyard, Esq. in the chair. Among the company were Earl Spencer, Stafford O'Brien, Esq., E. Bouverie, Esq., J. Nethercoat, Esq., Langham Christie, Esq., W. Harris, Esq., High Sheriff of the County; R. Heygate, Esq., E. Pell, Esq., G. Peach, Esq., J. Percival, Esq., and a large body of eminent agriculturists of the counties of Northampton, Warwick, Bedford, Buckingham, Hereford, &c.

The cloth having been withdrawn, Mr. Hillyard proposed "The King." This, he said, was the only health which he should propose to accompany with three cheers. The practice of cheering other healths was inconvenient in many respects, and tended greatly to interrupt the proceedings of the meeting.

The health was then drunk with the usual honours; and was followed by "the Queen and Royal Family"—"Success to the Farming and Grazing Society." Mr. Hillyard here produced his "dessert"—mangel wurzel, Swedish turnips, and carrot.

In proposing the next toast, the Chairman observed that it was an old proverb, that good wine needs no bush; and with equal truth it might be said that a good toast required no preface. He should therefore content himself with proposing health and long life to the noble patron of the Society, Earl Spencer. *Enthusiastic applause—the company disregarding Mr. Hillyard's salutation—and simultaneously rising, and giving three cheers.*

EARL SPENCER, in returning thanks, said he was quite aware the meeting felt, that in promoting as he had promoted the interests of this Society, he considered that he was contributing to the benefit of the country at large, but more especially to the benefit of the agriculturist. Its object was to promote good farming and grazing, and the good stock which was generally exhibited at the shows led him to think that it had not been without the desired result. He was sorry to see so small a show of cattle to-day; but he hoped it was to be attributed to no other cause than the dryness of the season. He was very unwilling indeed to think that the graziers of this county were slackening their interest in the Society. For his own part he would do his best towards a better exhibition next year, and so he was sure would several other gentlemen whom he saw around him. (*Cheers.*) His lordship then said he was desirous of saying a few words about some of the premiums which he had been induced lately to offer. In the first place he would allude to the prizes for the best sorts of grain. *He thought it highly desirable to encourage improvements in the growth of grain,* quite as much as to encourage improvements of live stock. (*Cheers.*) He should like to see persons who wished to procure the best samples of barley and wheat come to Northamptonshire for them. (*Cheers.*) He was anxious therefore to see the Northamptonshire farmers competing for this prize. With reference to the prize to the sheep-shearers, he was aware that the fine sort of shearing required by the conditions might not be exactly what was required by the farmer. But he was of opinion that the shepherd who sheared best in this manner, was able to shear in the best manner for the farmer. He wished too to excite emulation among the shepherds, and he had succeeded. The first year he thought he had a good number of competitors. But he had then only 19, while in the very next year he had 37. Then there was a very manifest improvement in the shearing. In the first year there was a great number of sheep well shorn; but this year

they were nearly all well shorn. He believed that if he could induce the labourer to make himself a good sheep-shearer, he would always find employment. (*Cheers.*) The necessity for the hedge-cutting prize had, he thought, been pretty clearly shown by the circumstances connected with the competition. Last year there was a great number of competitors, and the work was remarkably ill done. Now this plainly showed two things; first that the men were willing to exert themselves—the next that they greatly wanted improvement. As a proof of what he had said about the inferiority of the work, he would observe that a whole drove of oxen went through the hedge which was cut on his farm. One thing indeed was to be considered, the time for contending for the prize was fixed at too late a season, last year. This year it would be earlier; namely, on the 23rd of November. In addition to these prizes he proposed in future to offer a prize for mowing. The conditions would require some consideration, because it would be very difficult to test good mowing. This would be another prize for the labourers. He was desirous of offering prizes to labourers as well as to their employers—(*Cheers.*)—for he believed that they not only tended to the great improvement of the labourer, but were the means of inducing a good feeling between the employed and the employer. (*Cheers.*) As he had had before said, he was anxious for the success of this Society, because he was anxious to promote good farming and grazing, by which alone the success of the agriculturist could be insured. He hoped that on this ground he should have the strenuous support of the farmers of Northamptonshire. (*Cheers.*)

MR. HILLYARD then proceeded to read the list of awards, as follows:—

The Silver Cup, given by Sir W. Wake, Bart. Edward Bouverie, Esq., and the President of this Society, to the farmer of this county, or a farmer's son, not exceeding 25 years of age, who shall plough in the best manner, with two horses abreast, without a driver, and within three hours and a half, half an acre of land, not less than four inches and a half deep, was won by Mr. J. Vials, of Harleston; but in consequence of Mr. Vials being older than the prescribed age, the prize was awarded to the next best candidate, Mr. Edward Underwood.

To Thomas Gadsou, ploughman to Mr. Shaw of Cotton End, the Society's prize of two guineas.

To Charles Hine, ploughman to Mr. W. Shaw, of Huntsbury Hill, one guinea.

To John Cox, ploughman to Mr. Vials, of Harleston, 10s 6d.

To Wm. Freeman, shepherd to Edwd. Bouverie, Esq., for rearing at the rate of 23 9-10 of lambs to the score of ewes, two guineas.

To James Jones, shepherd to Mr. Richard Linnell, of Stowe, for rearing 23 1-3 of lambs to the score of ewes—one guinea.

To Thomas Crick, shepherd to Mr. Wm. Slaw, of Cotton End—10s 6d.

A prize of two guineas to the unmarried man who had lived the longest time in the house of a member of this Society as a farming servant.—No claimant.

A prize of two guineas to the unmarried woman living in a farm house under the same conditions, to Lucy Rigby, for 12 years service with Mr. Bartlett Miller, of Chapel Brampton.

To Aaron Wilson, labourer to John Manning, Esq., of Harpole, for 31 years' service, two guineas.

To Wm. Irons, labourer to John Manning, Esq., for 31 years, one guinea.

To Joseph Pell, labourer to Mr. Joshua Cooch, of Harleston, for 25 years, 10s 6d.

Three prizes offered to the labourers in husbandry employed by members of the society, who had supported and were then maintaining the largest number of children, or who were respectively possessed of property to the amount of ten pounds, the result of their earnings, besides household goods, were all unclaimed.

Earl Euston's premium of three guineas, offered on similar conditions, but not restricted to persons employed by members of the Society, was also unclaimed.

A premium of two guineas, by John Percival, Esq., to Robert Grose, of Moulton, he having brought up three children.

A premium of one guinea, offered by Mr. Percival to the labourer with not less than two children, was unclaimed.

By S. Percival, Esq.—One guinea to Geo. Trasler, a youth under 20 years of age, for seven years servitude with Mr. Rd. Linnell of Stowe.—A second premium of one guinea was unclaimed.

#### EARL SPENCER'S PREMIUMS.

CLASS 1.—Premium of ten sovereigns—Earl Spencer's Durham ox, four years and six months old, bred by his lordship.

2. First prize of 7*l* to E. Bouverie, Esq. of Delapre Abbey, for his Durham ox, four years and six months old, bred by Mr. Bagshaw, of Newton, near Kettering.

Second prize of three sovs. to C. Hillyard, Esq. for his Durham ox, three years and nine months old, bred by Mr. Ellis, of Clipston.

3. First prize of seven sovs. to Stafford O'Brien, Esq. of Blatherwick Park, for his half-bred cow, three years and four months old.

Second prize of three sovs. to Mr. T. W. Bosworth, of Spratton, for his aged cow.

4. First prize of seven sovs. to Mr. T. W. Bosworth, of Spratton, for the best pen of five long-woolled ewes.

Second prize of three sovs. to Mr. Payne, of Hardington.

5. First prize of seven sovs. to Mr. John Scriven, of Harpole, for the best pen of five long-woolled heaves.

Second prize of three sovs. to Mr. Mark Sharman, of Great Harrowden.

6. First prize of seven sovs. to Mr. W. Askew, of Norton, for the best pen of five long-woolled shearhogs.

Second prize of three sovs. to Mr. T. Grose, of Harleston.

7. A prize of ten sovs. to Mr. Jno. Manning, of Orlingbury, for his shearing long-woolled tup, bred by himself.

Mr. Bliss's tup, shown in this class, was highly commended.

8. A prize of ten sovs. to Mr. John Manning, of Orlingbury, for his three-shear tup, bred by himself. All the sheep in this class were commended, but particularly Mr. Bliss's three-shear sheep, and Mr. Redgrave's shearing tup.

A prize of three sovs. for the best sample of wheat, and another of the same amount for barley, were both awarded to Mr. H. Sanders, of Harleston.

A similar prize for the best sample of oats, was unclaimed.

#### SIR J. H. PALMER'S PREMIUM.

Five sovs. to E. Bouverie, Esq. for his three-year and seven months' old Hereford ox, bred by the late Hon. G. Germaine.

#### THE HON. E. S. PERY'S PREMIUMS.

Five sovs. to Mr. Payne, of Hardington, for his pen of five long-woolled wether lambs.

A premium of five sovs. for the best fat ox was unclaimed.

#### STAFFORD O'BRIEN, ESQ'S PREMIUM.

Five sovs. to Mr. Samuel Sherman, of Milton, for his 17 years' old Durham bull.

Mr. Underwood's bull, shown in this class, was commended.

#### SIR FRANCIS LOWLEY'S PREMIUM.

Ten sovs. to Mr. John Tunnell, of Dallington Grange, for his three-year-old grey colt.

The sweepstakes of two sovs. each for the best pair of Hereford steers, bred in the county, were adjudged to Edwd. Bouverie, Esq., for his pair of Hereford oxen.

Mr. HILLYARD then proposed the health of the successful candidates.

E. BOUVERIE, Esq., returned thanks. He had no objection to being successful, but he did wish he had had to contend with better and more numerous competitors. Next year he trusted that the show would be larger.

Mr. HILLYARD said the next toast he had on his list was the health of the Donors of the prizes.

EARL SPENCER begged to propose, as one of the donors the health of their worthy President. It was not however only as a donor that they were indebted to him. To his unwearied exertions, they must all be aware, the Society chiefly owed its origin, and in a great measure its continued success. No gentleman who heard him, would, he was sure, not join gladly in drinking the good health of Mr. Hillyard. (*Cheers.*)

Mr. HILLYARD returned thanks. Annually for many years, he had had the gratification of rising to return thanks for a similar compliment. So many times, indeed, had he risen, that he ought to know better how to express his acknowledgements. But he knew he should never be able to express all he felt, and therefore he would cut the matter short, and simply say—"I thank you." So long as he lived, so long should his poor services be devoted to promoting the interests of the Farming and Grazing Society of Northamptonshire. (*Cheers.*)

Mr. HILLYARD, in proposing the next toast, the health of Sir J. H. Palmer, regretted that ill health prevented his attendance. He was indeed absent from the country. The healths of Earl Easton, the Hon. E. S. Pery, Sir F. Lawley, and Stafford O'Brien Esq.

STAFFORD O'BRIEN, Esq., returned thanks. He had been a member of the Society for some years, although this was the first time he had had the honour of attending the annual dinner, and he could not but feel greatly obliged by their courteous reception of his health. With respect to the show, he must admit that he had been disappointed at seeing so few beasts exhibited, knowing how beneficial the society must be, not only to this county but to the whole country. He was satisfied that more was to be learnt from such meetings as those of this society in a single day, than could be gleaned from books on the same subject in a year. He was hardly gratified at being the winner of this prize, for his was a half-bred animal, and seven guineas was a great deal of money for it. (*Laughter.*) He sincerely hoped they should do better next year; he would try to do better himself, and it would highly gratify him to lose the prize. (*Cheers and laughter.*)

Mr. HILLYARD then proposed the health of Sir William Wake. (*Cheers.*) He was at the sea-side; or he would certainly have attended the dinner.

Mr. HILLYARD would now propose a toast, which he was sure would be highly acceptable to the meeting; the health of the Hon. Captain Spencer. (*Great Cheering.*) The Hon. Captain had recently entered upon agricultural pursuits, and he rejoiced at it—first, because he was sure he would derive from it a vast deal of pleasure; and secondly because he would be a valuable accession of strength to their body.

The Hon. Captain SPENCER said he was elected a member of this Society only at the last meeting. He had hoped to have been among the competitors at this day's show, but he found it was rather early for so new a beginner to compete with the eminent agriculturists whom he saw about him. He should, however, certainly try next year, and with the advice of his friend by his side, he did not despair of doing something.

Mr. HILLYARD proposed the healths of three gentlemen who had undertaken a very arduous and not always very pleasant office. He alluded to the three judges, and he defied any county in England to show him three more efficient or impartial men. (*Great cheering.*) The healths of Messrs. Chaplin, Burgess, and Senior were then drunk with much cheering.

MR. CHAPLIN returned thanks.

The healths of the gentlemen who had favoured them with their company from distant counties. MR. BARNETT rose to return thanks, when Mr. Hillyard suggested that if all the gentlemen included in the toast would oblige them by rising also, the company would be able to see how greatly they had been favoured. A large number of gentlemen accordingly stood up in

compliance with Mr. Hillyard's request and were cordially cheered.

MR. BARNETT then returned thanks. He said he had been greatly gratified by the show, although as a whole, it was not equal to some previous ones. He saw, however, a very great improvement in the Tups shown by the Noble Lord. He concluded by hoping that he should have the pleasure of seeing his Northamptonshire friends at the Bedfordshire Agricultural Meeting which was fixed for the first Tuesday in Oct.

MR. HILLYARD then produced his bag of turnip seed, for which a great scramble took place amidst much laughter. He observed that one of the advantages of these turnips, was, that they would not run to top if allowed to stand late in the year. He had seen turnips in April run to top till they resembled a painter's brush. As an evidence that they were really worth attending to, he would mention that some time ago, he was walking over a turnip field in a distant county, when he perceived that the turnips were exactly the same sort as those he was now showing. Upon mentioning the fact to the owner of the field, he confirmed it, adding that his son had obtained one of the seeds handed round by him (Mr. Hillyard) after the dinner of the Society; that he had sown it and liked it so much that he had preserved the produce and had now his farm stocked from that insignificant origin.

The healths of the Judges of the Ploughing, Messrs. John Price, Reynolds, Grantham, Berkeley, R. Heygate, Kitelee, S. Bennett, Thomas (of Lidlington), the Stewards, and the High Sheriff, Wm. Harris, Esq. followed. We regret that a want of space compels us to throw aside the report which we had prepared of this part of the proceedings.

W. Harris, Esq. and Mr. Barwell were then elected members of the Society, and shortly after eight o'clock Earl Spencer left the room, amidst cheers, and the company broke up.

The following sweepstakes are open, to be decided at the next annual meeting:—

Five sovereigns each, for the best ox, under five years old, fed without restriction. Spencer.

Three sovereigns each, for the best ox or steer qualified for the 2d class in the Christmas Smithfield Show, 1836. Spencer.

Two sovereigns each, for the best Hereford steer, under three years and a half old, and qualified for Lord Spencer's prize (No. 2) for a fat ox.

John Slater.

Three sovereigns each, for the best pair of steers, of any breed, under four years old.

Spencer—E. Bouverie.

Two sovereigns each, for the best pair of Hereford steers fed in the county, under four years old.

E. Bouverie.

Three sovereigns each, for the best steer of any breed, under three years old. Spencer.

One sovereign, for the best Durham steer, not exceeding four years and nine months old, or 100 stone.

Spencer.

One sovereign, for the best pair of Hereford steers, not exceeding three years and a half old.

E. Bouverie.

One sovereign, for the best steer under two years old.

Spencer.

Five sovereigns each, for the best bull which has served 25 cows. John Beasley.

Two sovereigns each, for the best breeding cow, in calf. Stafford O'Brien. W. F. Wratlaw.

Two sovereigns each, for the best cow or open heifer. Stafford O'Brien. W. F. Wratlaw.

Three sovereigns each, for the best pair of Scots. Spencer. Wm. Bailey.

Five sovereigns each, for the best tup of any age. Spencer. — Inskip.

Two sovereigns each, for the heaviest crop of mangel wurzel, of not less than three acres.

Spencer. C. Hillyard.

Two sovereigns each for the heaviest crop of Swedish turnips, of not less than five acres.

Spencer. C. Hillyard.

## NETHERBY FARMER'S SOCIETY.

This Society held its Sixteenth Annual Meeting and Cattle Show, at Longtown, on Tuesday, September 13. The various descriptions of stock exhibited were numerous, and considered to be particularly good, and the breeds are certainly improving, although the season has been unfavourable. After the field business of the day was over, the President of the institution, the Right Hon. Sir James Graham, Bart., with his son, Mr. Frederick Graham, Major Graham, the Rev. Mr. Moor, of East Lothian, and a number of the gentlemen and agriculturists of the neighbourhood, accompanied by a large party of the farmers of Netherby and their friends, sat down to a very excellent dinner provided by Mr. Braithwaite, of the Graham Arms. Sir James occupied the President's chair, and Mr. Thomas Wilkin and Mr. Gibbons acted as Vice-Presidents. The healths of the worthy baronet, of Lady Graham, the Patroness of the institution, and her beautiful family, and of every branch of the good old tree of Netherby, were drunk with the greatest enthusiasm. Many appropriate speeches, toasts, and healths followed, and the evening, until a late hour, was passed in the most happy manner, and with that spirit of good will, kind intercourse and conviviality which characterises this well-conducted society, and augurs well for its continued prosperity and great utility.

Immediately after dinner, the President read over the award of the Judges, and the prizes were immediately paid to the following numerous competitors by Mr. Yule, of Fergushill, the Secretary.

1. To the best managed First Class Farm, a Silver Tea-pot of Ten Pounds value. Mr. John Birrell, of Rosetrees.

2. To the best managed Second Class Farm, a Silver Tea-pot of Ten Pounds value. Mr. William Graham, of Cubby hill.

3. To the best managed Third Class Farm, cash, Four Pounds. Mr. Thomas Little, of Heathery-knowe.

4. To the best managed small possession or croft, the farmer of which may be occasionally employed off his Farm, cash, Four Pounds. Mr. John Carruthers, of Yulescroft.

5. To the best managed ditto ditto, on which the farmer does not reside, under the same conditions as the last, cash, Three Pounds. Mr. Robert Plenderleath, Longtown.

6. For the best executed Draining, by stone or tile, laid on slates or stone, the quantity of land laid dry and fit for aration to be compared with the extent of the farm, without reference to the rent.

First Prize, Five Pounds. Mr. Thomas Davidson, of Arthurscross.

Second Prize, Two Pounds Five Shillings. Mr. G. Carruthers, of Station.

7. To the Tenant who shall produce the best lot of Five Galloway Cows in Milch, *bona fide* his own property, the first choice of a Galloway Bull Calf; or a Heifer Calf, if the President or Vice-President think fit, from the Netherby Stock. Mr. Gibbons, of Mossband.

8. To the Tenant who shall produce the best lot of Two Year Old Galloway Cattle, male or female, not less than five in number, bred on his farm and *bona fide* his property, the second choice of a Bull Calf from the Netherby Stock, or a Heifer Calf, at the option of the President or Vice-President, as above. Mr. James Graham, of William and George Town.

9. To the ditto who shall produce the second best

lot of Five Year Old Cattle, male or female, under the same conditions as the last, the third choice of a Galloway Bull Calf, or a Heifer Calf, without choice, from the Netherby Stock, as above. Mr. Hislop, of Moat.

12. To the best managed Ancient Meadow upon the Estate, upon which either Lime, Short Dung, or Compost shall have been applied for the current crop, in proportion to the extent and capability of the farm, cash, Two Pounds. Mr. James Little, of Batenbush.

13. To the best managed Meadow, formed from Lands not originally Meadow, and improved since the year 1824, under the same provisions as the last, cash, Two Pounds.

14. Among the best kept, neatest, and cleanest Cottages and Gardens upon the Estate, Lady Graham gives prizes to the amount of Ten Pounds in money, to be awarded according to merit, by the Judges of the Netherby Farmer's Society.

First Class,—John Fergusson, Lynemoor, and six others.

Second Class,—John Leftry, Beck.

Third Class,—Tibby Little, Englishtown, and ten others.

Premiums offered by the Netherby Farmer's Society to the Tenantry and Cottagers of the Right Hon. Sir J. R. G. Graham, Bart., M.P., independent of the Prizes offered by Sir James and Lady Graham. Crop and year 1836.

1. To the best managed, manured, and cultivated Turnip Crop, upon the whole Estate, the extent of the farm and the nature of the soil being considered. Not to be under ten acres, Three Pounds. Mr. Wilkin, of Guards.

2. To the best managed Turnip Crop, under the same conditions, but not exceeding ten acres, One Pound Ten Shillings. Messrs. Tinning, of Chapleton.

3. To the best ditto ditto Potatoe Crop, on the same conditions, Three Pounds. Mr. Saunders, of Ridings.

N. B.—The successful candidates for Sir James's Prizes, Nos. 1 and 2 not to compete for these two last-mentioned Prizes.

4. For the best Bull of the pure Galloway Breed, *bona fide* the property of a Netherby Farmer, and to serve Cows upon the Estate until the 1st of September, 1836, at not more than 2s. 6d. each Cow, but after receiving this prize, the Bull may be sold if he has already remained three years on the Estate for the purpose of breeding, Five Pounds. Mr. Wilkin of Bush.

5. For the second best ditto ditto on the same conditions, the Bull to be two years old, Two Pounds. Mr. Wilkin, of Mossband Hall.

6. For the best Cow of the Galloway Breed, *bona fide* the property of a Member: the Cow to be in milk at the time of showing, One Pound. Mr. Fergusson, of Englishtown.

7. For the best Galloway Heifer bred upon the Estate, two years old past on the 1st of March, 1836, One Pound. Mr. Johnson, of Pedderhill.

8. To the best ditto ditto, one year old, Ten Shillings. Mr. Johnson, of Pedderhill.

9. To the best Cart Stallion, of the pure Scotch breed, to serve in the district, and give every satisfaction during the season to the Committee and Judges appointed by the Society, Five Pounds. Mr. Robert Broatebe's Horse Champion.

10. To the best Brood Cart Mare, of the pure Scotch breed, Two Pounds. Mr. Wilkin, of Guards.

N. B.—This Prize to be held by the Treasurer un-

til the Mare produce a Foal, if she has not already produced, but she must be stinted.

11. To the second best ditto ditto, on the same conditions, One Pound Ten Shillings. Mr. Wilson, of Cowrigg.

12. To the best three year old Cart Horse, Mare, or Gelding, of the pure Scotch breed, bred at Netherby, Two Pounds. Mr. Hislop, of Most.

13. To the best two years old Horse, Mare, or Gelding, of the pure Scotch breed, One Pound Ten Shillings. Messrs. Tinning, of Chapeltown.

14. To the best year old ditto, One Pound. Mr. Graham, of Cubbyhill.

15. To the Best Bear, Two Pounds. Mr. Little, of Guardsmill.

16. To the second best ditto, One Pound. Mr. Birrell, of Rosetrees.

17. To the best Sow, One Pound. Mr. Wright, of Oakbank.

18. To the Man or Woman servant in Husbandry, for the longest term of service with one master, but not less than seven years, One Pound. William Scott 18 years servant to Mr. Wilkin, of Bush.

19. For the best pen of five yearling Cheviot Wedders, One Pound. Mr. Gibbons, of Burnfoot.

20. For the best ditto of five yearling Half-bred Wedders, One Pound. Mr. Wilkin, of Bush.

AGRICULTURAL SALE.—The sale of farming stock at Athelhampton, late the property of J. G. Balston, Esq., deceased, took place on Friday last, by Mr. L. S. Green, of Wareham. A very numerous and most respectable company attended from various parts of the kingdom. The arrangements for the sale gave the highest satisfaction. After the usual conditions of sale had been read, the auctioneer addressed the company in a neat and appropriate speech, observing on the great superiority of the stock exhibited, and the opportunity afforded to agriculturists to improve their stocks, as he was instructed to sell without reserve. About three hundred gentlemen partook of a cold collation, which was served up in very good style by Mr. Bailey, of the Bear Inn, Wareham. Annexed are prices the stock realized:—

	s.	d.	s.	d.		
Full-mouthed Ewes, from ..	32	0	to 40	0 per head.		
Six-teeth Ditto .....	37	0	..	67 0		
Four-teeth Ditto .....	36	6	..	43 6		
Two-teeth Ditto .....	36	6	..	45 6		
Lambs .....	26	0	..	33 0		
	£.	s.	d.	£.	s.	d.
Rams .....	3	5	0	to 17	0 0	
Ram Lambs ....	2	5	0	..	15 10 0	
Yearling Heifers ..	5	10	0	..	9 2 6	

We congratulate our agricultural friends on the improvement their flocks must derive from the above sale, affording, as it has to them, an opportunity which may never again occur.—*Dorset County Chronicle*.

In a bushel of Wheat of average quality, there are contained about 500,000 grains; and if this number is divided by the number of square yards in an acre, one bushel sown on an acre, gives 103 grains and 3-10ths on each square yard and on each square foot, 11½ grains, therefore each square space measuring 3½ miles would on an average have one seed deposited in it, from whence is adduced the following table:—

bushels.	Number of Grains.	Grains on a sq. yard.	Grains on a sq. foot.	One grain on a square of
1....	500,000	103, 3-10ths	11½	3½ inches
2....	1,000,000	206, 6-10ths	23	2½ Do.
2½....	1,250,000	258, 7-10ths	28½	2¼ Do.
3....	1,500,000	300, 9-10ths	34½	2 Do.
3½....	1,750,000	361, 3-10ths	40½	1 9 10th Do.

## WEST SUSSEX ASSOCIATION,

FOR THE ENCOURAGEMENT OF MERITORIOUS AND  
INDUSTRIOUS AGRICULTURAL LABOURERS.

The principal meeting of this Association took place at Goodwood on Wednesday Sept. 7, and was successful beyond the most sanguine expectations of its supporters. The exertions which have been made during the last few months by the originators of this most useful society have tended to excite very considerable interest throughout this rich agricultural district, and we are pleased to say that they have been crowned with the most complete success.

Its object was at a time when the Poor Law Amendment Act was first coming into operation, to ascertain the moral and pecuniary condition of the labouring population, or, at least, of that portion of it which has been struggling for many years with honest pride to maintain themselves and families independent of parochial assistance. This end has been most fully answered and the result must be highly gratifying to all those who are interested in this most important question. The society was enabled, by the liberality with which it was supported, to offer nearly forty premiums to the different classes of servants engaged in agriculture, both male and female, for which upwards of eighty candidates competed. Class A.—the most important, perhaps, of all, viz.: for labourers who have brought up large families with the least amount of parochial relief, the certificates produced to the Committee most unexceptionably signed—included those of many labourers who, with a family of eight or ten children, had retained situations for periods varying from twenty to thirty years, and who had received no parochial relief whatever, or only during periods of sickness. As an encouragement, also, to those labourers in whose department skill and experience are of the utmost consequence sheep-shearing and ploughing matches were held out as a means of affording them an opportunity of displaying their talents, and of receiving a suitable reward. The particulars of the first, which was in June last, were given in a former number of our paper, and the ploughing match, which was the chief attraction on Wednesday, took place in a large field adjoining Goodwood Park, and presented a most pleasing and interesting scene. The judges were Messrs. Ellman and Putland, who kindly came from Lewes to officiate on the occasion, and a very large concourse of persons assembled to witness it. Nineteen candidates started, each being required to plough half-an-acre, with two horses and reins, but without a driver. The task was completed in some instances in little less than an hour and three quarters, and the latest only just exceeded two hours. Among the competitors there were two lads, both under sixteen years of age, to both of whom, we are pleased to say, premiums were awarded.

After the conclusion of this match, there was a show of stock sheep for premiums offered by the Cattle Show Club, in Goodwood Park, but owing, we understand, to the jealousy which exists between the breeders of sheep, it did not fill well.

The premiums to the breeders of the best pens of South Down six-tooth, four-tooth, and two-tooth ewes, were awarded to Messrs. Huskisson, Mr. E. Wyatt, and Mr. A. Wyatt; and to the breeder of the best four-tooth South Down ram, to Mr. Charles Duke.

An interesting scene took place after dinner when the prizes were given to the successful candidates, their names and services being read out by the Chairman, and, when they retired after having received

this honourable and to them valuable proof of their merit, many of them were loudly cheered by the numerous company present.

Shortly after three o'clock a highly respectable party, consisting of about 150 gentlemen connected with agricultural pursuits, sat down to an excellent cold dinner, provided by Mr. Ballard, of the Dolphin Inn, Chichester. His Grace the Duke of Richmond, was only prevented by his absence in Scotland from presiding over this meeting of an Association of which he is so eminent a Patron. His place was, however, ably supplied by His Grace's brother, Lord George Lennox, who proved his interest in the welfare of the Agricultural interest of Sussex by coming expressly from France, where he had been staying with his family, to place himself at the head of those gentlemen who have distinguished themselves by a similar spirit. His Lordship was supported on his right by Mr. Putland, of Fittle, and on the left by Mr. Scrase Dickens.

Among the gentlemen present we noticed—Gen. Crosbie, C. S. Dickens, Esq., J. Ellman, Esq.,—Putland, Esq., Richard Hasler, Esq., W. L. Woods, Esq., C. Osborn, Esq., John Barton, Esq., James Hack, Esq., T. Humphry, J. Rusbridger, Esq., &c. &c.

On the removal of the cloth, the toasts of "The King," and the "Queen and the rest of the Royal Family," were given from the chair.

Then followed the distribution by the Chairman of the prizes awarded to agricultural labourers both for their moral conduct during a long term of years, as well as for a display of superior skill in their peculiar art. Each claimant, on his name being called out, proceeded to the head of the table, where he received the reward of his merit, which was accompanied by a few words of congratulation from Lord George Lennox, with a hope that they would continue to pursue that path of honesty and industry which had hitherto characterised their career, and which was the cause of so much honour being shown to them that day. Loud shouts of applause followed the perusal of the documents proclaiming the meritorious conduct of these men, and few could help envying their feelings at seeing themselves thus held up as patterns of good behaviour and probity, and examples worthy to be followed in every age, society, and country. Those who pretend that virtue in humble life is but a name—those who boast so much of bye-gone times to the prejudice of the present—should have been present on this occasion; they would have seen enough to convince them that, when a desire is manifested on the part of any body of men to encourage worth and merit, it is by no means a difficult task to discover it, and that, too, in classes where they would, perhaps, through ignorance, last look for it.

On the conclusion of this agreeable duty, the Chairman rose and said that he was sure the company would share in the pleasure he took to drink the healths of those worthy individuals to whom prizes had just been awarded.

The names of those female servants whose conduct had been thought such as to merit recompense were then read, and the premiums received by their masters.

The successful competitors in the ploughing match were proclaimed, and received the reward of their skill.

Mr. BARTON called on Mr. Ellman to explain to the company why the number of premiums originally fixed upon had been exceeded.

Mr. ELLMAN was very happy to answer the call of Mr. Barton. A mistake had arisen in consequence

of his thinking that four premiums were to have been given away in the ploughing match, he had been glad to find that there were four very superior ploughmen, to whom prizes could be given; afterwards, however, he discovered his mistake, and that there was the number of premiums to be conferred, and therefore it was necessary that one man should be excluded; the doubt rested between Nos. 13 and 16, but as the difference between them was very slight, the former having finished only a short time before the latter, it had been determined to extend the number of premiums from three to four, and thus reward both the men. Slight recompenses had also been conferred on several others.

The CHAIRMAN, before reading the names of the successful sheep-shearers, would tell them that he was much interested in their exertions. He had laid a bet on them against all the fine flock-shearers of Mr. Ellman, and he was confident they would return from East Sussex with all the prizes.

Mr. JAMES HART called attention to this subject, which he wished the more to do from having been laughed at so on this head by their friends in East Sussex. They had been challenged by them to come to their ploughing match, on the 26th of Sept., and he hoped that the Committee of this Association would appoint two or three men to go there.

Mr. RUSBRIDGE would second this proposition.

Mr. ELLMAN hoped that, after they had laughed at him, they would allow him to say five words in reply. He begged to say that the premiums in their ploughing match on the 26th of Sept. were open to all Sussex, but their manner of ploughing was very different from what he has seen this day, and which appeared to him extremely easy. However, he should be delighted to have the West Sussex men, and should be equally delighted not only to see themselves beaten in ploughing but also in sheep-shearing, for such a rivalry would be productive of good to both parties. By the Reform Bill the county had been divided into two divisions, and returned four Members of Parliament, and he hoped that one of the Members of the Eastern Division of the county would come and preside over them, with the same eloquence as one of the Members of West Sussex had displayed this day. He was glad to see that the proposition he had made last year had produced so much mirth at the present meeting. He would conclude by proposing the health of the Noble Chairman, than whom no one was more capable of presiding on this occasion.

Mr. POSTLETHWAITE concurred with Mr. Ellman in his eulogium on Lord G. Lennox, and mentioned several circumstances in which the activity of the Noble Lord had been exercised to the advantage of the county, and that, too, in a time when the state of the agricultural districts was most critical. He proposed that his health should be drunk with three times three.

The Noble CHAIRMAN said that he was aware it was difficult to make himself heard in so large a room, and, if it were smaller, he should find the same difficulty to express his feelings of gratitude for the manner in which they had drunk his health. He trusted they had been acquainted with him long enough to know that his words came from his heart. Though he did not reside with them at present so much as usual, it was a great satisfaction for him to find that, when he did come among them, they received and treated him with so much warmth and affection, and, if he were less with them on ordinary occasions, he hoped he had not deserted his duty where he was so much required—in the House of Commons. To do this was the only pledge he had

given, and, for a proof of his having kept his word, he would refer them to his votes in Parliament, which would show that during the whole Session he had not been absent more than fifteen days. Mr. Postlethwaite had alluded to circumstances which had occurred some years ago, and in which he (the Noble Lord) had acted as he thought proper, but he was certain the establishment of Societies, such as the present, would do more to stop such proceedings than any private exertions. These meetings would do more to check the spirit of in-subordination which unfortunately existed at the period alluded to than all the laws. The landlord, the tenant, and the labourer, had only to mix with and know each other to become aware of the fact that their interests were the same. Mr. Ellman had said that, in the recent ploughing match, they had not properly buried the stubble: he would answer that, when they went to East Sussex, they would not only properly bury the stubble, but the labourers also; and, as their manner of ploughing was so very easy, he would advise Mr. Ellman to send some of his ploughmen over to learn it, and the West Sussex ploughmen would prove to them that they could also do the most difficult; and whatever they did would be done in a fair and honest way. He concluded by drinking their very good healths.

The CHAIRMAN, in proposing the health of the Judges, said they had a deep debt of gratitude to pay to Mr. Ellman and Mr. Putland, and, whatever might have passed between him and the former, he was sure that that gentleman would see it was only a friendly rivalry.

Mr. Ellman, in returning thanks, said he was glad at having had an opportunity of witnessing the ploughing of West Sussex in the same manner as he had been a spectator of their sheep-shearing. With regard to the latter, he was inclined to think that the East Sussex men were superior, judging from a meeting which he had previously seen. The ploughing match of his division of the county would be on the 26th of September, and he would promise the West Sussex men fair play, and should even be glad to see them carry off the prize; but he could not see great difficulty in the ploughing that had taken place that day. If they considered the piece of ground chosen uneven they would find much more uneven ground in the other division of the county. In fact, they considered their ploughing as only capable of being performed by four horses, but, notwithstanding, should feel extremely happy to see it performed by two. Even the ground they ploughed was such as to render the use of horses impossible, and oxen were resorted to. He knew the land, for he had used it twenty years. Having stated this much with regard to the ploughing, he would now speak of the sheep fair. In the first case of the three year old ewes they had had some difficulty to decide. It would be remembered that, at the last show of sheep at Chichester, some sheep had been put aside, they not being the proper stock for flock-sheep. To-day they had found one pen of sheep much superior to the others. They inquired the reason and found that their lambs had been weaned the 1st of May, and the others the 1st of July, which accounted for their superiority. There had existed some difficulty with regard to another class, and to decide they had called in a third judge. He was happy to attend this day, and would do so again if his services were required.

Mr. J. HIDE proposed the health of the Duke of Richmond—three times three.

The CHAIRMAN was confident that if his brother had not been far distant he would have been glad to

have met so respectable a body. They knew where he was, and he (the Chairman) thought that, in a short time, they would not only have to send ploughmen to the eastern division of Sussex, but also to teach them to plough in Scotland. He should like to bear a part in the expense which would attend a competition with East Sussex. He could not say that he would send men over like the horse Elis, which had just left Goodwood, but, if he were beaten, he would send a better the next year. He would bear half the expense if Mr. Rusbridger would bear the other.

Mr. S. DICKINS proposed the health of a gentleman who had been mainly instrumental in founding this Association, and who had also established a similar one in Hampshire. Every one would drink with pleasure the health of Mr. C. Osborn (of Hayling Island) and to the success of the West Sussex Association.

Mr. OSBORN expressed his gratification at the honour done him. He could not take the credit of having founded this Association; for, if his feeble efforts had not been followed by liberal public support, it would have fallen to the ground.

The CHAIRMAN stated that a prize of 10*l* had been awarded, though not by this Society, to Mrs. Huskisson. That lady had accepted it with pride as having gained it, but he was authorized to say that she begged now to resign it for the benefit of this Association. If they looked back at the name of Huskisson they could only expect this liberality from one whose husband had always been distinguished by this quality. They would, he was sure, all join with him in drinking the health of this lady.

The CHAIRMAN felt satisfied that, in announcing the next toast, he had only to make known the name of the Nobleman in whose honour it was to induce them to rise and drink it with enthusiasm. It was one who had for many years filled with honour the important post of Lord Lieutenant of the County, and whose support had never failed to be conferred on all deserving objects who stood in need of it. He meant the Earl of Egremont—three times three.

The CHAIRMAN proposed the health of a very useful officer of the Association, the Secretary. Every person who was acquainted with him knew him as a gentleman, who, on all occasions, filled his office with zeal and talent.

Mr. W. H. MASON, in returning thanks, expressed his gratification at the kind manner in which His Lordship had proposed his health and the company had received it. When he had accepted the situation of Secretary to the West Sussex Association he was doubtful of his capacity to fulfill its duties, from his total ignorance of agricultural matters, but he had used every exertion, and, he trusted, with success. He hoped likewise that the exertions of the friends of this Association would not relax, that they would not fall off from their subscriptions, on which it mainly rested. Mr. M. concluded by thanking them for the honour they had done him in drinking his health.

The healths of the Vice Presidents of the Association, Messrs. Hasler and Dickens, were drunk with three times three.

Mr. HASLER returned thanks and expressed his opinion that this Association would serve to establish a better connexion between master and man, and would mainly contribute to the improvement of agriculture.

Lord George then left the room amidst loud cheers, accompanied by a considerable portion of the assemblage, and soon after the meeting broke up.

## EAST SUFFOLK AGRICULTURAL ASSOCIATION.

The cloth having been removed, and the usual loyal toasts given from the chair, the President, (the Earl of STRADBROKE,) rose to propose "Prosperity to the East Suffolk Agricultural Association." The object of this Association has now been fully developed and it is highly gratifying to observe the satisfactory progress which it has made in promoting the interests of the poorer classes. (*Cheers.*) Not five years have elapsed since much apprehension was felt on account of the unemployed poor; the cause was owing, unfortunately, to discontent and poverty; but I feel confident that the members of this Association, by mixing themselves up with the wants and necessities of the poor,—(*cheers.*) did mainly contribute to alleviate their distress, and to set a commendable example, which has been followed in many parts of the British Empire. (*Loud cheers.*) Do not let it be supposed that I am anxious that we should take to ourselves the credit of too great a share of this national prosperity. Full well do I know, that the Poor Law, where it has been carried into effect, by Guardians of calm mind and of sound understanding, divested of prejudice, has in its operation, contributed greatly to the relief of the poor, and has been the means of increasing the demand for labour, without in the remotest manner diminishing the wages of the employed. (*Cheers.*) Nay, gentlemen, it has done much more than ever this: it has restored that mutual confidence between master and man, which former bad management had nearly extinguished. (*Continued Cheers.*) One of the main objects of our meeting together, upon this occasion, is to discuss the merits of the various stock that has been exhibited. I may say, with much truth, that it has never been equalled in any former year, and that it does the greatest credit to those gentlemen who have sent it to form the show. We can never forget, that the quality of the stock, and the great quantity of it upon a farm, are the first and best proofs of the ability of an agriculturist (*Cheers.*) This leads me to a subject which I have before touched upon, but which I cannot too often bring under your notice, namely, the absolute necessity which exists of every possible endeavour being made to improve the implements of agriculture. Let us look around, and observe where the greatest prosperity prevails. We find it in the manufacturing districts, where almost every day the improvements effected in machinery bring increased wealth to its owner, and promote the happiness and comfort of those who depend upon him for employment and support. Whilst they progress in the arts, shall we be content to stand still? (*Cheers.*) Shall we proceed with the implements of our forefathers, or shall we, assisted by the spirit of the age, do every thing in our power to improve those implements and thus reduce the enormous expense of cultivation? (*Loud Cheers.*) It is not very long since I ventured to hint upon the probability that a steam plough would be invented and well do I recollect, that a portion of a most enlightened company entertained a doubt whether such a project could be accomplished; the majority thought it impossible, and I am not sure whether the remainder did not receive the idea with ridicule. Notwithstanding this, however, a steam plough has been invented, and introduced, and with a very small alteration it is likely to be brought into general use. I mention this only to show how necessary, and how advantageous it will be, to give this subject our deepest and best attention. (*Cheers.*) Gentlemen no person can have the interest of agriculture more

at heart than myself: and I am convinced that means like those, to which I have alluded, are the soundest and the best that can be devised, by which our difficulties can be removed, and by which we can hope to see the day arrive when we shall become an exporting rather than an importing nation. (*Cheers.*) I now propose, that we drink "Prosperity to the East Suffolk Agricultural Association." *Three times three, and "one cheer more.*

The next toasts were "Sir E. Kerrison and the Army;" "The Navy;" "The Noble Chairman:" "The Lord Lieutenant of the County."

Mr. CORNELIUS WELTON, the Honorary Secretary, then read the list of the prizes awarded, which were received with loud tokens of approbation.

"Mr. Archdeakne, and the Successful Candidates."—Mr. ARCHDECKNE returned thanks.

"The Members for the County."

"Lord HENNIKER in returning thanks, observed that he had then the honour of meeting them for the fourth time, and he must take shame to himself for not having been able to send a specimen of the produce of—(Sir Thos. Gooch exclaimed "High Suffolk!")—High Suffolk, as the Hon. Bart. had designated his place of residence; but he had always understood it to have been designated as a *terra incognita* but he was not ashamed to say he was one of its inhabitants. (*Loud laughter.*) He would not make any political allusions, but he hoped a day of greater prosperity than hitherto seen was dawning upon the farmer, and he hoped that they might now entertain a well founded expectation that the difficulties which have assailed us are nearly at an end. (*Cheers.*) With respect to the Poor Laws, he did think that there had been an earnest anxiety on the part of both the Commissioners and the Board of Guardians—at least on the part of those with whom he was personally acquainted—a disposition to act with leniency towards the poor man, to reward the honest and industrious and to correct the idle and profligate. (*Cheers*) In corroboration of what had fallen from the Noble Chairman, on the subject of Steam Ploughs, he begged to state that he had received a letter from a friend in Lincolnshire, who informed him that they were capable of barrowing 30 acres and ploughing 8 acres per day. (*Applause.*)

Sir CHARLES VERE, M. P., was also favourably received. He said, I am quite sure that if parties, who have cast reflections upon the motives and intentions of those who are engaged in promoting the interests of agriculture, could have witnessed what we have seen in the course of this day, and given their attendance at this meeting, they would at once be satisfied, that the agriculturists have no selfish ends of their own to advocate—that they require no benefits at the expense of any other portion of the community; and that the situation of the labouring classes, comes under the fullest, the best, and the most anxious consideration. (*Loud cheering.*) I will not say anything regarding the nature of those duties which his noble Colleague and himself had imposed upon them during the last few months, and the questions that had come before them as representatives of the Eastern Division of this county. It had been our endeavour to take that course which should be most beneficial to the land, and to its interests; and if we have been disappointed in our expectations, in some respects, still I am quite sure that an impression had been made upon the reasonable, the thinking, and the reflecting portions of the community; as well as upon the minds of those who manage the public affairs, of the actual state and circumstances in which we are placed: and we are now in their estimation, placed in a more favourable

light and in a better situation, than the one in which we stood and occupied before. (*Loud cheers.*) It is quite evident to those who are accustomed to observe and reflect, upon what we have done, that the farming interest, requires nothing but what it had fairly a right to ask—(*cheers*)—and indeed it would be very wrong, on our part, to allow it to be supposed, that anything except what is fair towards every other class of the community, is required in behalf of the agriculturists. That such is our desire is strongly evident, both from the patience with which we bear our disappointments, and the moderation of our tone in asking for redress; and I can only repeat, that all who view our situation with impartiality and without prejudice, will do us the credit to believe, that we ask only what is just and compatible with the public interests. (*Cheers.*) Having the honour to represent an agricultural county, I feel that, whilst I ask for what is fair in behalf of agriculture, I am only asking for what is fair towards the community at large. So thoroughly blended is the prosperity of the manufacturing with the well being of the landed interest, that if the latter, only ask for, and receive, that fair proportion of relief, to which it is entitled, I am quite sure, it will always conduce to the prosperity of the country at large. (*Cheers.*)

"The health of the Bishop and Clergy of the Diocese."—The Hon. and Rev. F. NOTHAM returned thanks, and was followed by Dr. Etough, who spoke of the advantages accruing from cottage allotments. On the health of "Mr. Shawe and the other Vice Presidents" being proposed,

R. N. SHAWE, Esq., rose and returned thanks. When this Institution was first established, he went on to observe, some prophet of evil, alleged that before it had been in existence two years, we should all separate by different ways—that we all entertained different opinions, and that the Society would be of no practical use whatever. I congratulate you however, upon this our fifth anniversary; for you have had a better show of stock, and have now a more full attendance at this table, than were ever seen at any previous meeting. (*Loud cheers.*) It may be asked how does this arise? The whole secret is told in two words: you have adhered to the original plan upon which this institution was established: you have endeavoured to improve the breed of stock: you have rewarded the labourer for due and proper attention to his service: and by the premiums awarded you have awakened active exertion, and stimulated the industry of the farmer. These principles you have followed up, you have also evaded all party politics: and we meet here united as a body, to do the best we can by individual efforts to promote the interests of agriculture. (*Loud cheers.*) In the first instance, it was said that Suffolk could not bring forward the best breed of stock. It is true, that, till lately, under the fostering influence of this Association, due attention was not paid; but now, we are exporting the best sheep into other counties; and those counties, therefore, from which we formerly were accustomed to make our purchases, have now become our customers. (*Cheers*) This is important in another point of view. It seems that we have hitherto pursued a wrong course:—that we have depended entirely for our remuneration from the plough; it is now our duty however, in consequence of the low price of wheat, to pay more attention to stock. But it seems that some anticipations are entertained, about a steam plough, which has been invented. I only hope and trust that your Lordship's prophecies or predictions may be perfectly realised, and that, by means of steam, you may so lower the cost of production, as that the farmer may



derive a remunerating profit from his labour; but in the mean time, I think a considerable period must elapse before a steam-plough can be brought into practical operation, and it becomes us agriculturists to see, what we can do, till the invention is brought to maturity. (*Loud cheers.*) I learn, from the report of the evidence given before the late Agricultural Committee, that the Scotch farmers do, in point of fact, cultivate their land at very much less cost than ourselves. How that is effected I know not. I attribute it not to the want of skill, attention, or industry on the part of the Suffolk farmer: but the fact is broadly stated in the report; and if it be so as represented, I think it would be worth while if this institution were to turn its attention to the point, and send some of its own members patiently to inquire into all the causes, and to ascertain whether some mode of cultivation used by the Scotch, and at present unknown to us, might not be adopted in our own county. The evidence in the report confirms the opinion that, if the low price of wheat be caused by superabundant growth in our own country, it is impossible that any remedy can be provided by legislative enactment. The Committee which sat in 1821, of which Sir Thomas Gooch was Chairman, made a report to that effect, and we see that opinion confirmed by the evidence given in 1836. It has been observed that grass land bears no proportion to the quantity of arable; and I believe if you look over the farms in Suffolk, you will not find more than one-fifth in grass. Now, that small proportion certainly does not enable the farmer to carry the stock which he ought to do; and it is to the latter alone that the farmer must look for adequate profit upon the investment of his capital. I know, in addition, that wherever marsh land is brought into the market for hire, persons run after it, and offer from 2l. to nearly 3l. per acre. (*Cries of "No, no."*) It is quite impossible not to see, that unless we turn round with the times, and we have turned with them before, the agriculturist interest of this country will not be in a flourishing condition. I say this because I see some persons are disposed to lay down their land into grass, and it is absolutely necessary that it should be done; for, suppose the remuneration to be small which the farmer receives from the produce of his farm, how does he remove the difficulty? First, he tries to diminish his expenditure, and, if that fail, he diminishes the quantity grown. You must turn your attention to stock; you must lay down your land into grass; and if you do this, you will find the landlords of Suffolk ready to assist you in your undertaking. To return to the point from which I started. After the exertion used by yourselves to endeavour to place yourselves in a different position, there are other things that may be done by the Government. Only three years ago, nearly all the county of Suffolk was mad about the repeal of the malt tax; but a few months afterwards, it was told that the tax was not worth being taken off, and that it was of no importance to the farmer. Now, if you proceed in the question, you will eventually be relieved, and if you ask that the tax be reduced to 10s. a quarter, I feel certain that you will obtain what you require. a reverend gentleman has alluded to the cottage allotment system. I have practically adopted it for a number of years, but I have found it beneficial only to a certain extent. It is of great advantage to the able-bodied labourer, who has a large family of children to maintain. The noble Lord in the chair alluded, in his opening speech, to the poor laws. I know that the most exaggerated opinions have gone forth upon that subject: one party alleges that there has been a

great saving, and another, that there has been no saving at all. We must believe neither—and as to the savings that arise from it, considering the value of the measure as a whole—I say the proportion of savings sink into perfect insignificance. I speak this upon the authority of many gentlemen, who in the first instance were opposed to the principle of the measure, and who now tell us that the labourers can find work, and that masters are glad to afford employment. This, therefore, is a benefit, morally and physically, to the labouring classes; and of more value to the community than any saving which may be derived from the measure.

Mr. Shawe sat down amidst loud cheering. (Owing to some confusion between a waiter and some of the party, Mr. Shawe was repeatedly interrupted.)

The health of "Sir T. Gooch, Bart."

Sir T. Gooch said, allusions had been made in the course of the evening by certain gentlemen, to the New Poor Law Bill, and he professed his adhesion to the opinions therein given. It had given him much pain to observe that in some places where meetings had been held upon the subject, objections had been thrown out against the Bill on the ground that the measure tended in a very remarkable degree to grind down the poor. It was his opinion that the Bill had an entirely contrary effect—it was calculated to raise the poor—enabling the poor man to get his living independently, and to obtain his bread as he ought to obtain it, without the assistance of the parish. He had no doubt that most of the gentlemen present had found out long ago that he (Sir Thomas Gooch) was no Whig; it was also known, that the Poor Law Bill was brought in by the Whigs, but he would say, so high an opinion did he entertain of the measure, that if it had been introduced by the bitterest Radical that ever lived, he would have given him willingly the credit he deserved.

A. ARCADEKNE, Esq., having given up the prizes obtained by him for stock, to the funds of the Society, was presented with a silver medal. He returned thanks accordingly.

The health of "J. Moseley, Esq., and the Committee." J. Moseley, Esq., returned thanks.

The CHAIRMAN gave the healths of the Secretary (Mr. C. Welton, Wickham-market) and the Treasurer (Mr. J. Wood, Woodbridge). Mr. Welton's health was drank with three times three.

Mr. WELTON returned his best thanks for the honour which the noble President had conferred upon him in proposing his health to the meeting, and he begged to assure them that if his (Mr. Welton's) public services had been in any way instrumental in aiding the establishment and increasing the prosperity of the East Suffolk Agricultural Society, it was owing to those services having been directed and supported by the knowledge and condescension of the Noble Earl who presided over the institution. He (Mr. Welton) would always continue to labour in the same cause as he had always done, with the strictest integrity and with increased zeal.

Mr. J. WOOD (Treasurer) returned thanks.

The CHAIRMAN gave the health of the Judges of the Stock—Mr. Boys and others.

Mr. BOYS (Waldersham) begged to return most heartily and sincerely his best thanks for the compliment conferred upon him, and if he ever at any period of his life lamented his inability to express his feelings adequately to the occasion, it was at the present moment. He had attended at the meeting to perform one of the most unthankful offices to which a man could be elected—that of a judge upon the

merits and demerits of the stock exhibited that day. He trusted that every gentleman was satisfied that he had been treated fairly, and he sincerely hoped that the want of success of some would only act as a stimulus to exert themselves on other occasions. It had been his fortune to have been brought up under one of the best judges of sheep, and the best of men, the well-known Mr. Ellman, and therefore he (Mr. Boys) thought it more than probable that he had imbibed from him some of those sound principles of judgment which were universally acknowledged and unrivalled. He would impress upon the agriculturists of this country, and indeed all other parts of the country, the advantage that would accrue to them by paying the most minute attention to the breeding of their stock. What, he would ask, had produced the celebrity which had attached itself to the Roast Beef of Old England, but that attention to the breeding of stock which had made 2lbs. of meat grow where 1lb. had grown before? Let the agriculturists remember that—let them never forget that the art of breeding consisted in great attention, in the first place to selection. It was a principle laid down as an unerring truth, that "like would beget like." An animal to be perfect must be symmetrical—symmetry would show constitution—a good constitution induced a disposition to fatten—then meat was produced, and meat they all knew was profit. He begged all agriculturists to reject the breeding of imperfect animals. Mr. Boys also informed the meeting that Mr. Coke, of Norfolk, had tried many experiments on the crossing of the breed of sheep, but they had all failed to produce the desired result, and that he recommended all farmers to study the breed of Southdowns, in preference to Norfolds, or any other breed, and they would then improve also their quality of wool. He (Mr. Boys) had asked, not long since, one of the greatest buyers of wool in the world, Mr. Lagg, of Bournemouth, why he did not come to Suffolk to buy wool, and he informed him that he did not like the wool produced there, there was too much grey and black in it to suit his purpose. He (Mr. Boys) begged them, as they valued good breeding, to reject in future the whole race of black-faced sheep. He heartily wished the highest success to the East Suffolk Agricultural Association. By the opinions and sentiments thrown out at meetings similar to the present, much good and advantage accrued to the farmer. He recollected his father telling a story, that many years ago, when attending one of the Woburn Agricultural meetings, on his road home, he met an old farmer, who, taciturn to a degree, refused for some time to answer any questions that were put to him. On being asked what he was thinking about so deeply, the man replied that he was endeavouring to discover the use of the meeting which they both just had left. His (Mr. Boys) father immediately observed, that the use of such meetings was to set such men as him (the farmer) and others interested in agricultural pursuits, thinking upon the subject, with which answer the farmer was well pleased; and if he (Mr. Boys) had said anything that evening which would have the effect of inducing any gentleman present to think on the subject upon which he had so briefly and imperfectly addressed them, he should feel himself well rewarded for his trouble (*Cheers.*)

The CHAIRMAN said that he could not concede to all the opinions which Mr. Boys had given in his very excellent speech. Out of the breed of sheep which Mr. Boys had spoken of, from 468 ewes he had got 776 lambs. His ewes, when sold, produced, with their wool, 31s. 6d each.

Mr. Boys expressed his astonishment at the

prices; but said his Lordship did not inform them if the buyers improved upon his bargain, nor did he give the weight of the animals.

Sir T. GOOCH said, that he wished to inform Mr. Boys that he got 42s. for the flock wool and 56s. for hogget. The question appeared to him to lie between purity and impurity, and though he (Sir T. Gooch) was generally considered a moral man, he thought that this time he should take the part of impurity. (*A laugh.*)

The health of "Mr. T. Lawson," a member of the Yorkshire Agricultural Society.—MR. LAWSON returned thanks.

The Noble President then quitted the chair and the company soon after left the scene of festivity.

## AN ACT TO REGULATE PAROCHIAL ASSESSMENTS.

[19th August, 1836.]

*All Rates to be made on the net annual Value of the Property.—Proviso.*

Whereas, it is desirable to establish one uniform mode of raising for the relief of the poor throughout England and Wales, and to lessen the cost of appeal against an unfair rate: be it enacted by the King's most Excellent Majesty, by, and with the advice and consent of the Lords spiritual and temporal, and Commons in this present Parliament assembled, and by the authority of the same, that from and after such period, not being earlier than the twenty-first day of March next, after the passing of this Act, as the Poor Law Commissioners shall by any order under their seal of office direct, no rate for the relief of the poor in England and Wales shall be allowed by any Justices, or be of any force, which shall not be made upon an estimate of the net annual value of the several hereditaments rated thereunto; that is to say, of the rent at which the same might reasonably be expected to let from year to year, free of all usual tenants, rates, and taxes, and title commutation, rent-charge, if any, and deducting therefrom the probable average annual cost of the repairs, insurance, and other expences, if any, necessary to maintain them in a state to command such rent: Provided always, that nothing herein contained shall be construed to alter or affect the principles or different relative liabilities (if any) according to which different kinds of hereditaments are now by law rateable.

*Rates to be made in a given Form.—Nothing herein to prevent Owners from compounding for Rates.*

II. And be it further enacted, That every such rate made after the said period shall, in addition to any other particular which the form of making out such rate shall require to be set forth, contain an account of every particular set forth at the head of the respective columns in the form given in the Schedule to this Act annexed, so far as the same can be ascertained; and the churchwardens and overseers, or other officers whose duty it may be to make and levy the said rate, or such a number of the said churchwardens and overseers or other officers as are competent to the making and levying of the same, shall, before the rate is allowed by the justices, sign the declaration given at the foot of the said form; and otherwise the said rate shall be of no force or validity: Provided always, that nothing herein contained shall be construed to prevent the owners of tenements from compounding for the rates to be assessed on the same, in such manner as they were by any statute or statutes enabled to do before the passing of this Act,

so that the gross estimated rental of the hereditaments compounded for, be entered on the rate in the proper column.

*Power to order new Survey and Valuation.*

III. And be it enacted, That when it shall be made to appear to the poor law commissioners by representation in writing from the board of guardians of any union or parish under their common seal, or from the majority of the churchwardens and overseers or other officers competent as aforesaid to the making and levying the rate, that a fair and correct estimate for the aforesaid purposes cannot be made without a new valuation, it shall be lawful for the poor law commissioners, where they shall see fit, to order a survey, with or without a map or plan, on such scale as they shall think fit to be made and taken of the messuages, lands, and other hereditaments liable to poor rates in such parish, or in all or any one or more parishes of such a union, and a valuation to be made of the said messuages, lands, and other hereditaments according to their annual value, and to direct such guardians to appoint a fit person or persons to make and take every such survey, map or plan, and valuation, and to make provision for paying the costs of every such, survey, map or plan, and valuation either by a separate rate or by a charge on the poor rates, as they may see fit; but in case of such charge being made, then provisions shall be made for paying off not less than one-fifth of the sum charged on the rates, and such interest as may from time to time be payable in respect of such charge or any part thereof, in each succeeding year, till the whole is repaid.

*Power for Surveyors to enter and examine Lands, &c., for purposes of Survey and Plans.*

IV. And be it further enacted, That for the purpose of making every such survey, map or plan, and valuation, it shall be lawful for the person or persons so to be appointed for making the same respectively, together with their and every of their assistants and servants, at all reasonable times, until the same respectively shall be completed, to enter, view, and examine, survey and admeasure, all and every part of the messuages, lands, and other hereditaments aforesaid, and to do or cause to be done any act or thing necessary for making such survey, map or plan, and valuation: Provided always, that any map, survey, plan, or valuation made previously to the appointment of such person or persons which shall be tendered to him or them, and which shall be in his or their judgment and to his or their satisfaction a just and true map or survey, proper for the purposes aforesaid, may be used for such purposes.

*Power to take Copies or Extracts of Rates gratis.—Penalty for Refusal to permit.*

V. And be it further enacted, That it shall be lawful for any person or persons rated to the relief of the poor of the parish in respect of which any rate shall be made, at all reasonable times, to take copies thereof or extracts therefrom without paying anything for the same, anything in any Act of Parliament to the contrary notwithstanding; and in case the person or persons having the custody of such rate shall refuse to permit or shall not permit such person or persons so rated as aforesaid to take copies thereof or extracts therefrom, the person or persons so refusing or not permitting such copy or extract to be made shall forfeit and pay any sum not exceeding five pounds, to be recovered in a summary way before any justice of the peace having jurisdiction in the parish or place.

*Justices acting in Petty Sessions to hold Four Special*

*Sessions in the Year to hear Appeals.—Seven Days Notice to be given of Objections.—Proviso.*

VI. And be it enacted, That the justices acting in and for every petty sessions division shall four times at least in every year hold a special sessions for hearing appeals against the rates of the several parishes within their respective divisions, and shall cause public notice of the time and place when and where such special sessions will be holden to be affixed to or near to the door of the parish church of the said parishes, twenty-eight days at the least before the holding of the same; and such special sessions shall and may be adjourned from time to time by the justices there present, as they may think fit; and at such special or adjourned sessions the justices there present shall hear and determine all objections to any such rate on the ground of inequality, unfairness, or incorrectness in the valuation of any hereditaments included therein, which decision shall be binding and conclusive on the parties, unless the person or persons impugning such decision shall within fourteen days after the same shall have been made cause notice to be given in writing of his, her, or their intention of appealing against such decision, and of the matter or cause of such appeal, to the person or persons in whose favour such decision shall have been made, and within five days after giving such notice shall enter into a recognizance before some justice or the peace, with sufficient securities, conditioned to try such appeal at the then next general sessions or quarter sessions of the peace which shall first happen, and to abide the order of and pay such costs as shall be awarded by the justices at such quarter sessions, or any adjournment thereof; and such justices, upon hearing and finally determining such matter or appeal, shall and may, according to their discretion, award such costs to the party or parties appealing or appealed against as they shall think proper, and their determination in or concerning the premises shall be conclusive and binding on all parties, to all intents and purposes whatsoever: Provided always, that no such objection shall be inquired into by the said justices in special session unless notice of such objection in writing under the hand of the complainant shall have been given, seven days at least before the day appointed for such special session, to the collector, overseers, or other persons by whom such rate was made: Provided also, that the said justices in special session shall not be authorized to inquire into the liability of any hereditaments to be rated, but only into the true value thereof and into the fairness of the amount at which the same shall have been rated.

*Justices may act with all the Powers of Justices in Quarter Sessions.*

VII. And be it enacted, That the justices present at any such special or adjourned session shall for the aforesaid purpose have all the powers of amending or quashing any such rate so objected to of any parish or other district within their division, and likewise of awarding costs to be paid by or to any of the parties, and of recovering such costs, which any court of quarter sessions of the peace has upon appeals from any such rate, except as herein excepted: Provided always, that no order of the said justices shall be removed by certiorari or otherwise into any of his Majesty's courts of record at Westminster: Provided also, that nothing in this Act contained shall be construed to deprive any person or persons of the right to appeal against any rate to any court of general or quarter sessions: Provided also, that no order of the said justices in special session shall be of any force pending any appeal touching the

same subject matter to the court of general or quarter sessions of the peace having jurisdiction to try such appeal, or in opposition to the order of any such court upon such appeal.

*Act confined to England and Wales.*

VIII. And be it enacted, That this Act shall extend only to *England and Wales*,

*Act may be repealed this Session.*

IX. And be it further enacted, That this Act may be repealed or amended by any Act which shall be passed in this session.

**TITHE COMMUTATION ACT.**

The following forms, with accompanying directions, have been forwarded to the churchwardens and overseers of the various parishes in England and Wales, for the use of those parties who may be disposed to take steps to effect a voluntary commutation.

The commissioners recommend that the churchwardens should call a vestry for the purpose of communicating to the titheowners and landowners the receipt of the inclosed forms.

*Form of Notice calling a Parochial Meeting to consider the propriety of a Voluntary Commutation of Tithes, when such Notice is given by Landowners.*

We \* the undersigned being Landowners, or duly authorized Agents of Landholders, within the Parish of \_\_\_\_\_, in the County of \_\_\_\_\_ whose interest is not less than one-fourth part of the whole value of the lands subject to Tithes, in the said Parish, do by this notice in writing, under our hands \*, call a parochial meeting of Landowners and Tithowners, within the limits of the said Parish, for the purpose of making an agreement for the general Commutation of Tithes within the limits of the said Parish, pursuant to the provisions of an Act passed in the 6th and 7th years of the reign of His present Majesty, intituled "Act for the Commutation of Tithes in England and Wales." And we \* do hereby also give notice that such meeting will be held at † in the said Parish, on ‡ the § day of || at the hour of ¶ in the \*\* noon. Given under our hands \*, this †† day of †† 183 ††

Directions to be observed with respect to the above form.

- \* If one person only sign the notice, the singular must be substituted for the plural throughout the notice, at the several places marked \*
- † Here state the place of meeting distinctly.
- ‡ The day of the week on which the meeting is to be held.
- § The day of the month, not being less than twenty-one clear days from the date of the notice.
- || The month.
- ¶ The hour of meeting.
- \*\* Say "fore" or "after."
- †† Date of month, month, and year.

*Form of Notice calling a Parochial Meeting to consider the propriety of a Voluntary Commutation of Tithes, when such Notice is given by Titheowners.*

We \* the undersigned being Titheowners \* or duly authorized Agents of Titheowners, within the Parish of \_\_\_\_\_, in the County of \_\_\_\_\_ whose interest is not less than one-fourth part of the whole value of the Tithes of the said Parish, do by this notice in writing, under our hands \*, call a parochial meeting of Landowners and Titheowners within the limits of the said Parish, for the purpose of making an agreement for the general Commutation of Tithes within the limits of the said Parish, pursuant to the provisions of an Act passed in the 6th and 7th years of the reign of His present Majesty, intituled "An Act for the Commutation of Tithes in England and Wales." And we \* do hereby also give notice that such

**SCHEDULE to which this Act refers.**  
**Form of Rate.**

An Assessment for the Relief of the Poor of the Parish of *Merton* in the County of *Surrey*, and for other Purposes chargeable thereon according to Law, made this *Thirtieth* Day of *March* in the Year of our Lord One thousand eight hundred and *thirty-seven*, after the Rate of *Sixpence* in the Pound.

No.	Arrears due, or if excused.	Name of Occupier.	Name of Owner.	Description of Property rated.	Name or Situation of Property.	Estimated Extent.	Gross estimated Rental.	Rateable Value.	Rate at 6d. in the Pound.
	£. s. d.					A. R. P.	£. s. d.	£. s. d.	£. s. d.
1	- - -	James Smith	John Green	Land and Buildings.	Whiteacre Farm.	40 0 0	50 0 0	55 0 0	1 7 6
2	- - -	Ditto	Ditto	House and Garden.	In West Street	0 1 0	30 0 0	25 0 0	0 12 6
3 {	- - - } Excused } 7½	John Poor -	Ditto	House -	In Brick Lane	- - -	1 10 0	1 5 0	0 0 7½
&c.	&c.	&c.	&c.	&c.	&c.	&c.	&c.	&c.	&c.

*Declaration of Overseers and Churchwardens.*

We, \_\_\_\_\_ do declare the several particulars specified in the respective Columns of the above rate to be true and correct, so far as we have been able to ascertain them, to which end we have used our best endeavours.

Thomas Jones, Overseer.  
John Thomas, [Churchwarden, &c. &c.]

meeting will be held at † in the said Parish  
 on ‡ the § day of ¶ at the hour of ¶  
 in the \*\* noon.

Given under our hands \* this †† day of ††  
 183 ††

Directions to be observed with respect to the  
 above form.

\* If one person only sign the notice, the singular  
 must be substituted for the plural throughout the  
 notice, at the several places marked \*.

† Here state the place of meeting distinctly.

‡ The day of the week on which the meeting is to  
 be held.

§ The day of the month, not being less than  
 twenty-one clear days from the date of the notice.  
 ¶ The month.

¶ The hour of meeting.

\*\* Say "fore" or "after."

†† Date of month, month, and year.

*The attention of persons giving the notice is espe-  
 cially called to the following points:—*

This notice must be signed either by landowners  
 whose interest comprises a full fourth of the value  
 of the lands of the parish subject to tithes; or by  
 titheowners whose interest embraces a full fourth  
 of the tithes; or by the duly authorized agents of  
 such parties.

And the interest by clause 19 must be ascer-  
 tained by the poor rate, if any exist in the parish,  
 which should be carefully examined before the no-  
 tice is affixed, in order to ensure its accuracy in  
 this respect; or if there be no such rate, the pro-  
 portional interest must be estimated according to  
 the rules by which property of the same kind is  
 by law rateable to the relief of the poor.

It must be fixed on the church doors, or on  
 some other public place within the parish where  
 notices are generally fixed, at least twenty-one  
 days before the day of meeting.

It must also be advertised twice during the  
 21 days in some newspaper in general circulation  
 in the county where the parish is situated. The  
 advertisements will not be chargeable with any  
 stamp duty.

The commissioners also require that a copy of  
 the notice should be sent to the post on the day  
 of its being affixed, addressed to "The Tithe  
 Commissioners for England and Wales, London."  
 There must also be annexed to the copy, when the  
 meeting is called by landowners, a schedule con-  
 taining the particulars required in the form on the  
 other side; but the notice advertised in the news-  
 paper need not contain the whole of the particu-  
 lars in the schedule; it will suffice if the names of  
 the landowners, or their duly authorised agents,  
 appear at the foot of the advertisement.

And on the copy so sent to the commissioners  
 should be endorsed a memorandum of the day and  
 hour of affixing the same, and of the place where  
 the same is affixed, which memorandum must be  
 signed by the person affixing the notice; such  
 person must also preserve a duplicate copy, with  
 a like memorandum, to produce to the parochial  
 meeting, in order to prove that the notice has  
 been duly given.

When the meeting is called by titheowners, to  
 the copy of notice should be annexed a statement  
 of the value of the whole tithes of the parish, and  
 the proportional interest therein, which is held by  
 the parties calling the said meeting.

The newspaper, with the notice twice inserted,  
 must also be produced at the meeting; and should

be preserved, as should the power of attorney by  
 which any agent is authorised to act on behalf of  
 any landowner or titheowner; such power, or an  
 attested copy thereof, must be appended to any  
 agreement which may be come to.

The power of attorney may be in the following  
 form, namely:—

"I, A. B., of \_\_\_\_\_ do hereby appoint  
 C. D., of \_\_\_\_\_ to be my lawful attorney  
 to act for me in all respects as if I myself were pre-  
 sent and acting in the execution of an Act passed in  
 the sixth and seventh years of his present Majesty,  
 intituled 'An Act for the Commutation of Tithes in  
 England and Wales.'"

It will be advisable that all such powers of at-  
 torney should be attested by one witness.

If, when a parochial meeting has been duly as-  
 sembled, an adjournment of the said meeting shall  
 be desired by a majority of the persons attending  
 such meeting, the chairman may adjourn the same  
 to any time or place then by him to be declared;  
 and so from time to time in like manner; notice  
 of every adjourned meeting, signed by the chair-  
 man, must be affixed conspicuously on the outside  
 of the building in which such meeting, or the last  
 adjournment thereof shall have been holden. (See  
 the 20th section of the Act.)

SCHEDULE.

Parish of \_\_\_\_\_  
 County of \_\_\_\_\_

Names of Land owners sign- ing the Notice of Parochial Meeting here- unto annexed.	Names of Oc- cupiers in respect of whose Lands the Notice is signed.	Amount of Assessment of each Oc- cupier in the Poor-rate.	Remarks.
A	{	D	£ 10 — —
		E	20 — —
B	{	F	5 — —
		G	70 — —
C	{	H	21 10 —
		I	3 7 6
Total..		£	129 17 6

Gross amount of Poor-rate assessed }  
 on all the lands (subject to tithes) } £400 — —  
 in the Parish .....

One-fourth part in value..... } £100 — —  
 Interest of landowners signing the }  
 notice for calling a Parochial Meet- }  
 ing, as above set forth .....

Signature of person transmitting the }  
 above notice .....

Date .....

N. B. If there be no poor-rate in the parish, then the  
 proportional interest of the landowners signing the no-  
 tice must be estimated according to the rules by which  
 property of the same kind is by law rateable to the re-  
 lief of the poor.

EXTRAORDINARY FACT. — It is not generally  
 known that a spadeful of coals, daily mixed up as ordi-  
 nary food, has been found to be the best method in the  
 world of fattening swine. A gentleman in this vicinity  
 has for some time practised it with eminent success! —  
*Elgin Courier.*—[It would be well if our contemporary  
 could get this fact confirmed by the gentleman himself.  
 —Ed. M.L. F.]

## ON UNDER-GROUND DRAINING.

Most occupiers of land are fully aware that the first and greatest improvement of wet land is draining; but they do not agree as to the most proper means for effecting that desirable object. So much depends upon soil, subsoil, and other localities, no positive rules can be given for the draining process. Experience is the best guide, and the tact or art of effecting the most good, at the least comparative expense, can only be acquired by extensive practice, close observation, and correct calculation. Hence young practitioners frequently commit great errors, lose much valuable time, and expend large sums of money to little good purpose. But although no positive rules can be given, a few general remarks and practical hints from an old drainer may be of service to the inexperienced: and with that view the present communication is made, by one who has had long and extensive practice in land-draining. As the writer does not pretend to advance anything new on the subject, his remarks may not be interesting to old practitioners; but as he will endeavour to point out prevalent errors, with instructions for improvement, he is not without hopes his effort in that way may be of some service to young beginners; and to such he begs leave to address himself.

Extensive bogs are usually drained under the direction of professional scientific men, and any criticism upon their operations would be superfluous in this place. Neither will it be necessary to remark upon open or surface drains, ditches, or water-furrows, as these are generally well executed by attentive farmers; but under-draining of springy land in all its varieties of broken measure, and upon other land retentive of wet, though carried to a great extent by farmers and other land occupiers, is not generally so well conducted by them as surface-draining. The following remarks will therefore be confined to under-ground or covered drains, commencing with those usually called

**FURROW-DRAINS.**—Much injury has been done, and serious loss sustained, from the imprudent practice of levelling and straightening high crooked ridges upon retentive subsoil, without taking the precaution of draining the furrows in the first instance. In such cases, the only sure remedy is by opening the ground in the lines of the old furrows, and putting covered drains into them. Cross drains do not effect so perfect a cure as furrow-drains upon land so mismanaged.

In setting covered drains of every description, whether with tile, stone, brushwood, turf, or any other material, particular attention should be paid to securing an open space at the bottom of every drain for a water-channel. Many farmers are not aware of the propriety of that measure, and others too negligent to attend to it. They fill their drains with stones or other material, thrown in promiscuously: those are called rubble-drains; and the farmer feels satisfied of their efficacy, because he sees water oozing out at their ends. It is true, water percolates through the material in the rubble-drains, but at different levels, seldom at the bottom, and sometimes at the very top of the rubble; consequently, they are entirely deceptive in effect. Any person entertaining a doubt on the subject, may readily satisfy himself, by opening a short space by the side of a rubble-drain in wet weather. He will then see the water issue out of the rubble, and rise in the

opening, before he has dug near to the bottom of the drain—a clear proof it does not work well, and that the water being so obstructed in its course, stagnates in the drain, and saturates the adjoining land; whereas, had the drain been set open at bottom, the water would have had a free passage, and the land been relieved from superfluous moisture. Obvious as this must appear to every unprejudiced person, it is quite surprising with what tenacity some farmers, even at the present day, maintain a contrary opinion. The writer of this article has frequently met with such instances of perverseness, nor could he by any means induce the sceptics to prove the fact by the simple means here recommended. The advocates of rubble-drains argue—"That water runs out at the ends of such drains, which is quite sufficient; and that, were they to set drains open at the bottom, rats and moles would creep into them, and stop them up." Without doubt such vermin do occasionally creep into drains, but are not likely to stop them up, as they will not lodge in a water-course. But even if they did so, the stoppage could only be temporary; for the water in the drains would rise up to the level of the loose material, above the tiles or set stones, percolate between them, and drop into the drain below the obstruction, which would soon be washed away, and the water-course be again left clear.

Tiles, properly made and well burned, are not only handiest, but the best material for setting in the bottom of drains. They ensure a clear water-course. A drain two feet deep, set open at bottom, is more effective than one four feet deep, filled with rubble, and is not half so expensive. Small stones, or other loose rubbish, should be laid above the drain-tiles, or set stones, to act as conductors of wet. In most cases, about one foot deep of such material is thought sufficient. Some farmers fill their drains with small stones and other rubbish so high, that the ploughshare touches the material in its operations; and the farmer thinks it indispensably necessary the drains should be so filled, under an idea that the top-water would not find its way into the under-drains by any other means. That is a bad practice, prompted by error in judgement, and effected at great unnecessary expense.

It is quite obvious, where the ploughshare disturbs the material in under-drains, it opens a passage for surface-water into the drains; but the advocates of this measure should recollect, that water so admitted into a drain carries much earth with it, and soon chokes the drain up. Surface-water will find its way into under-drains without the aid of the ploughshare. An old draining adage says, and says truly, "If one drop of water finds its way down, two will assuredly follow." When water is drained off at bottom, it gives place to moisture descending from above. "You cannot put more liquid into a barrel already full of it; but draw from the tap-cock, you may then pour into the bung-hole." These sayings, though homely, are applicable to the case in point.

The operation of opening furrow-drains is greatly facilitated by commencing with a common plough, going once about, and throwing out a good furrow on each side. Two cuts or grafts with the spade will then, in most cases, be a sufficient depth. The curved grafting-tool is more effective in cutting out strong subsoil than the common garden-spade. A conic-shaped grafting-tool answers best for cutting out the bottom drain. Furrow-drains should be cut narrow, the

bottom of just sufficient width to receive the draining-tiles. When the cutting is finished, the loose earth should be carefully cleared out of the bottom, with a scoop made for the purpose. Great care and attention should be paid to setting and filling the drains. The tiles being laid in a line along the side of the drain, the workman stands in the bottom of the drain, having one foot placed immediately behind the other; he reaches one tile at a time, and lays it firm on the bottom before him; he then moves his feet back, places another tile, and so on to the end of the drain. Small stones, or other loose rubbish, are then put over the tiles, and a layer of turf or sprinkling of litter is put over the rubbish, to prevent the earth sinking among it. Where no small stones or other loose rubbish can be procured to lay upon the tiles, turf or litter should then be laid immediately above the tiles, and the drain be filled up with surface-soil, that being generally more porous than clay or tile dug from the bottoms of drains. Horses should not be allowed to tread upon new-made, shallow-covered drains; neither should cart-wheels pass along or over them.

When furrow-drains are intended to be set with stones, is not necessary, in all cases, to cut the drains so wide at bottom, as to admit of stones being set square on the sides, and have broad covers placed over them as in deep drains. Stones may be set to give a free water-course in drains cut as narrow at bottom as from drain-tiles. The workman places himself in the drain in the same form as when laying tiles, and the stones intended for setting being laid along the side, he reaches them as required. There are various methods of setting stones in the bottoms of narrow drains. One only shall be described here. It answers best in strong clay. The drain being five inches wide at bottom, place one end of the set stone in the angle at the bottom on one side, and lay the other end against the opposite side of the drain; the set stones being, eight or nine inches long, will then leave a clear triangular-shaped aperture for a water-course at bottom. The workman then selects other stones, and places them above the first setters, so as to form another triangular opening on the opposite side of the drain; thus forming a secondary water-course, if the first should be either obstructed or overcharged with water. Small stones are then put over the set stones, and the drain finished in the same manner as in tile-draining.

Shallow under-drains in the alignment of the ridges, called furrow-drains, are more effective than deep cross-drains upon strong land, impervious subsoil, and where there are no springs, spouts, or oozings of water from broken or irregular measures in the land. The depth of furrow-drains should vary according to the nature of the soil, and other circumstances; average depth about two feet, and, as before observed, they should be cut narrow.

Furrow-drains should not be formed to empty singly at the bottom of open ditches, as they would be liable to be choked up by the treading of cattle and accumulation of weeds and rubbish in the ditches. It is a better plan to collect a number of furrow-drains into larger and deeper cross under-drains, made at a distance from the lower parts of the fields. Those receivers discharge the collected waters into open ditches or water-courses, and are not so liable to be choked up as furrow-drains emptying singly. These receivers should not be made to discharge the water

at the bottoms of open ditches. The water should be made to fall from one into the other, as will be more fully explained in the next section, when treating of

**DEEP CROSS-DRAINS.**—Cross-draining is more difficult than furrow-draining, and great errors are frequently committed in the practice. It is customary in this description of draining, to commence operations at the lowest parts of the fields, and where there are no side ditches for the cross-drains to discharge into. A main, or leading drain, is carried up from the lowest to the highest level. The depth of the drain is generally settled in the first instance, without previous investigation of the nature of the soil and subsoil. As the main drain is under operation of being carried up the field, numerous cross-drains are made to lead into it. Those are frequently cut in straight lines, as that suits the workman's convenience, and sometimes at regular distances, whatever the nature of the soil or subsoil may be. In this manner a cure is sometimes effected, though at a great unnecessary expense. But the result is more generally a total failure, when the occupier consoles himself under his disappointment, with a belief that the failure was entirely owing to the nature of the soil, and impediments in the locality of situation, which could not possibly be overcome.

An experienced drainer, professional and practical, proceeds with greater circumspection in his operations, and he seldom fails of success: he, in the first instance, takes a minute view of the field to be drained; he inspects all the spouts or breakages of water in it; he decides upon the different levels of the ground, and facilities for carrying the water off; he then sets down his marking sticks for the workmen's direction, not always in straight lines, but bending round the inequalities of the ground, and immediately above where the water-spouts or oozings shew on the surface; he then takes other views of the lines of the stakes, to satisfy himself the water in the drains will have proper falls, and when he entertains a doubt on that point, he proves it by the spirit-level. These preliminaries settled, he ascertains the nature of the subsoil, by digging holes in the lines of the projected drains. These shew the strata in which the water flows, and the nature of the obstruction which forces the water up to the surface of the ground, and the depths of the drains are regulated accordingly. The digging of try-holes, technically called "feeling the way," is a simple and safe process, and should never be dispensed with where there is a variation in the stratification.

In some fields, where the soil and subsoil vary in texture, and are irregularly disposed, springs as oozings of water, though they appear on the surface at various levels, not unfrequently arise from the same source, near the top of the field. Where the water issues from crevices in rocks, from loose gravel, or from other broken or loose matter, or alluvial deposit, the water filters through such measures, until obstructed by impervious subsoil. It is then forced up to the surface, over which it runs in the declivity of the ground, and when it reaches more porous subsoil, it sinks into it, percolates through it, until it again meets obstruction, and is forced up to the surface, and forms the second line of water-breakages; and a third and fourth line of these water-spouts may be formed from similar causes in the same field. These receive the sev-

ral local appellations of springs, spouts, oosings, sloughs, quagmires, &c. In a field so circumstanced, it is advisable to cut the upper cross-drain in the first instance. It should be cut immediately above the first breakage of water, near the top of the field, and be made to discharge into a side-ditch, or into a leading drain, carried up for the purpose of a receiver. The effect of that cross-drain will be proved in one year, and when found necessary, other cross-drains may be cut at lower levels in subsequent years. It is frequently seen, where the draining operations are commenced, by cutting cross-drains at low levels; such drains collect, and discharge a great deal of water in the first instance; but when other cross-drains are afterwards cut at higher levels, the first are laid entirely dry, and the money which had been expended in making them lost, without rendering any benefit to the land; it is therefore advisable to cut an upper cross-drain first, prove its effect, and then proceed with the others at the lower levels, as may be deemed expedient.

The bottoms of drains, when not cut deep enough, are sometimes soft and poachy, and the draining material liable to sink into the mud. In such cases, plain tiles, or flat stones, should be laid in the drain bottom, for the drain tiles, or setting stones to rest upon. And in quagmires, or loose running sand, it is advisable to drive short wooden piles into the drain bottoms; those ensure good foundations, however soft and poachy the subsoil may be.

It may be thought unnecessary to again mention the propriety of securing open water-courses at the bottoms of covered drains. But that is a leading principle in draining which cannot be too frequently inculcated, nor too positively insisted upon; and it is of still greater consequence in deep drains than in shallow ones.

When water springs up in the bottoms of drains, it indicates obstruction at lower levels. The boring-rod should then be applied, to give vent to the pent-up spring. Every extensive drainer should be provided with a light boring-rod, called "a churn-drill." It is made of round bar-iron, half inch diameter, and about eight feet long; the ends beat flat into chisel form, one inch broad, and steeled. In using the churn-drill, the workman stands in the drain; he holds the rod upright with both hands, raises it perpendicularly, and drops it into a hole in the bottom of the drain, and at every movement he shifts his hands, and in so doing he turns the rod a little, so as to make the bore-hole round, and prevent the chisel wedging in the hard substratum. In working this implement, the motion is something like that of the stick or handle of an upright butter-churn, and hence its name. When the bottom is dry, as is sometimes the case before the springs are tapped by the rod, the bore-hole should be kept moist by pouring water into it. The churn-drill, though simple, is powerfully effective when properly applied in boggy or springy ground, and frequently saves the expense of cutting additional drains. The great boring-rod, with its appendages, is still more effective; but it is too complicated, and too expensive for common use in land-draining, and is only used in extreme cases.

Some persons who think it necessary that cross-drains should have rapid falls, cut them in straight lines at considerable declivities, and by that means frequently miss the water-spouts they intended to cure. This is a great error in practice, for it is by no means necessary, nor is it at all

times prudent to give water in under-drains a rapid fall, particularly in loose subsoil, liable to gutter and sludge up. The bad effects of rapid falls for water are exemplified in arable land furrows, and other surface-drains on hilly land. These are frequently sludged up in heavy rains, the water is thrown over the surface, and its current diverted into other channels. Attentive farmers, therefore make cross-furrows, or drains, with easy falls, to collect and carry off, without injury to the land, the surplus water from the furrow-drains. The same rule applies, and similar precaution should be taken, wherever there is expectation of much water in under-drains. It is not necessary to cut cross-drains in straight lines: they may be made to bend in any direction, to cross the water-spouts intended to be cured. But care should be taken in cutting, not to lose the water-level in any one place. The workman can readily guard against that error; he has only to see that the water in the bottom of the drains runs from him, and does not come back among his feet.

It has been heretofore remarked, that under-drains should not be made so deep as to discharge the water at the *bottom of open ditches*, but should have a fall into them for the purpose of preventing their choking up, by the treading of cattle or otherwise. Many farmers commence their draining operations by cleaning out and deepening the open ditches into which they purpose the covered drains to discharge. The object of that deepening is to get additional fall for the water from the drains. The design is good, and would answer the intended purpose if those ditches were regularly cleaned out afterwards; but, unfortunately, that is seldom or never the case, for the farmer's attention being called to other important concerns, the drains, being out of sight, are soon out of mind,—the ditches are neglected,—leaves, coarse grass, and other rubbish, accumulate in them,—cattle get into them and poach them up, and the mouths of the drains are stopped up;—the water stagnates in them, and the land again becomes saturated with wet. It is therefore not advisable to gain fall for covered drains by deepening open ditches, when it can possibly be obtained by other means.

Cross-drains should not be made to join the receivers, whether open ditches or covered drains, at right angles, or nearly so, as they generally do. Neither should they be cut so deep by some inches as the receivers; and with a view to ensuring a free discharge of water from the cross-drain into the receiver, it is advisable, at a point a few yards distant from where the junction would be formed in the usual way, to give the cross-drain a sharp bend towards the declivity of the ground, and make it join the receiver in an acute angle, as it then would do, at a lower level. This practice ensures a good fall, and prevents choking up, as the weight and force of water from the bend of the drain effectually removes obstruction at the point of junction, and keeps the mouth of the drain open.

F. B.

The absence of discussion upon the subject of the Islington Market might have led to the supposition that its advocates were either inattentive to its interests, or considered its establishment hopeless. We have much satisfaction in being enabled to state that the assiduity and perseverance of the



individuals who have succeeded in bringing it to its present state, continue unabated, that trustees have been named, and a Committee appointed for the purpose of forming a Company, to which the Market should be conveyed by the proprietor. The details of the scheme have been announced by advertisement in some of the provincial papers, and from the list of names which will be found heading the scheme, we entertain no doubt of its success. The grazier, the cutting butchers, and the consumer, are all interested in the condition of the animals at the time of their being slaughtered. The grazier is interested in preventing any unnecessary degree of fatigue and ill-usage to his cattle, as tending to destroy their appearance, and reduce their value. It is the interest of the cutting butcher and the consumer, that the animals should be as free from fever and irritation as possible, the fatigue and worrying which they undergo, necessarily hastening decomposition of the flesh when slaughtered. Municipal Reform has not yet reached the City of London, or we should not see such an abomination as Smithfield Market continued, when a situation so much more eligible is offered, and when even looking at the question in a pecuniary point of view, the present site of Smithfield might be applied to purposes which would equally well remunerate its present owners.

## CULTIVATION OF SMALL FARMS.

BY W. BLACKER, ESQ.

1st. The ground must be thoroughly drained. For this purpose it is not sufficient to cut drains in the low grounds; but the springs must be sought for as high up as any symptoms of them can be discovered, and the water conveyed from them, and not allowed to force its way through the soil; in which case it will destroy the effect of any manure which may have been applied. In proof of which, you may always observe, in such situations, the grain in that part of the field ten or fourteen days later than the rest of the crop, and in very late seasons it may, perhaps, not ripen at all.

2dly. The weeds must be destroyed; which in a little time will be accomplished by proper attention in collecting, as far as possible, all weeds, before putting in the crop, and by sowing the green crops in drills, and carefully weeding them afterwards; and they may even be made worth the expense of gathering, as they will yield a valuable addition to the manure heap, if applied as bedding in the cow-house. For this purpose, they should be collected before flowering. It is shameful to see, in many fields, the quantities of rag-weed ripening to seed, and impoverishing the ground as much as a crop, which might, if usefully applied, as above directed, have brought nourishment to the soil, in the place of exhausting it.

3dly. All cattle must be fed in the house or straw-yard, upon good food; such as rape, cabbage, turnips, or mangel-wurzel, potatoes, clover, and vetches, in proper succession, will abundantly supply, according to the nature of the land; there being no farm in which some of these crops may not be raised in abundance, with the aid of manure, which the practice of home-feeding produces.

4thly. Never take two crops of the same kind

in succession off the same land, although this is sometimes done with potatoes, to reclaim land that has never been in cultivation; but in other cases this is not advisable; and, in particular, two grain crops cannot be taken in succession without injuring the soil, and in the end a manifest loss arises from the practice, in place of that advantage which the needy farmer looks for; because, by interposing a green crop, such as clover, &c., full as many grain crops may be had off the same piece of land and from the same manure, in any given number of years, by taking them in rotation, as by taking them in succession. But the rotation system has this advantage, that while you get as many grain crops, you keep the land always in good heart, and between the crops of grain you get green crops equally valuable. This is accounted for by considering that no two crops derive the same particular nourishment from the land. The roots of some sink deep, and draw their nourishment from the bottom, while others spread on the surface; and it is generally believed that plants derive their food and support from as different ingredients in the earth, as the different kinds of cattle derive their food upon the surface. Horses will eat grass which cows reject, and so with every description of cattle; and supposing the analogy to hold good in plants, it is easy to conceive that a change of crop may find the soil abundant in that kind of nourishment which it requires, although it might be, at the time, exhausted of that kind required by the crop which had gone before; and thus the ground may be as much restored by the introduction of a green crop after a grain crop, as if the field had actually lain fallow; and experience, in a great degree, justifies this reasoning.

I am fully sensible, however, that a system of over-cropping with grain will extract every kind of nourishment from the soil, and leave it so that it will not even yield grass. This is the case with the land which is left to rest, as it is called by those who take three or four grain crops in succession; and the phrase is well applied, for the land is really not fit to do any thing. The error of this class of persons is, that they turn the land to grass at the end, in place of the beginning of their course. Had grass-seed been sown with the first crop of grain, there would have been a good crop of hay, and good after-grass, and the second crop of grain would have been as good as the first; and this is what ought to be done by those whose land is not suited to clover, or who, from poverty are not able to buy the clover seed; and even where two grain crops have been taken, it would be better to sow it with rye-grass, which will yield a crop on very poor land, rather than leave the ground to be possessed by weeds and such herbage as may naturally rise. The fact is, the last exhausting crop should only be put in upon that portion of the farm which is intended for potatoes, and other green crops, the succeeding year, which crops then give the manure to restore it to a productive state; and by this means there is no land at all lost by what is called resting it.

5thly. The place for manure should be contrived so, that it should not be exposed to any accumulation of rain water, but should receive the contributions from the sewers of the house, stable, cow-house, &c. The bottom should be paved, so that the drainage of the manure should run into a small cask or well adjoining it. Fresh earth should be regularly brought and spread over the manure, and the liquid in the well should be thrown over

it; by which means the whole compost will be equally rich, and the quantity increased to any extent that could be required; and the steam or smoke which arises from the stable manure, and which is the very richest part of it, would be kept under and imbibed by the earth so laid on, and the quantity of earth should be proportioned to the strength of the dung with which it is mixed. While speaking of manure, it may not be amiss to remark the great loss arising from the practice of letting off the water in which flax has been steeped, which, if sprinkled over clover, or made into compost with fresh earth, would be found most valuable.

6thly. It should be the object of the farmer, as soon as he possibly can, to have his fences made in straight lines, and of as great length as the farm will conveniently admit of. It is almost inconceivable the quantity of time lost by the frequent turning of the plough, and the quantity of land thrown out of cultivation, by having a crooked irregular fence, the bendings of which the plough cannot follow.

7thly. A farmer who has any understanding must perceive, the moment it is mentioned, that every unnecessary ditch is so much land actually lost, and that his care ought to be to have as few of them as possible; and it will, therefore, occur to him, that if he feeds his cattle in the house, almost all his ditches may be dispensed with, except the mearing ditches, which are necessary to keep out those of other people; but he has evidently no occasion to prepare a fence against his own, for he keeps them at home, and this circumstance would enable him to raise hedge-rows, which can never be done if the cattle are turned out, the value of which, for shelter to his crops, and supplying him with timber for all country purposes, is most important. The loss of land from useless fences is greater than any one would suppose who has not considered it: and I would almost venture to say, there are farms in this country of twelve acres, in which the ground lost between the trench or gripe, and the backs of the ditches, together with that lost by the crookedness of the line, would amount fully to one acre, or one-twelfth part of the whole. Now, supposing a farmer to pay thirty shillings an acre for his land, he of course loses thirty shillings annually by this waste of the surface, which is equal to two shillings and sixpence an acre upon his entire farm. It is quite evident, therefore, that these ditches should be piped and levelled in, which would have the additional advantage of relieving the crops from the vermin to which those ditches afford a shelter.

8thly. It requires a farm of full fifty acres to give sufficient employment to a pair of horses; perhaps sixty would be nearer the truth; and, therefore, if a farmer even ploughs in partnership, he ought to have twenty-five or thirty acres. I here speak of those who have no other employment for their horses than what the cultivation of the farm affords. There are, however, cases where the distance of fuel, and distance of lime, may make a horse necessary when it might not be otherwise. All *small* farmers ought to use the spade, for many reasons. It costs but little more, even if he has to hire assistance, and does the business better, and the crop is better. In all drill crops also, by using the spade, he may be put in a quicker succession of crops, and have one coming forward as the other is ripening. In wet seasons he can dig, when he cannot plough; and its value, in turning up stiff clay lands in autumn,

and exposing the soil to the frost and snow, is scarcely to be imagined; and in all such lands *this plan* should be pursued where no winter crop is put in.

9thly. In all wet lands, and where the clay is retentive, the ridges should be narrow, which may, indeed, be almost laid down as a general rule, in a climate so moist as this: but where the land is sufficiently dry, the broad ridge is preferable.

10thly. No straw whatever should be sold off the farm. In England this is strictly forbidden by lease, and the tenant who did so would be supposed to have an intention of running away. If the cattle are home-fed, as here recommended, all the straw the farm can be made to produce will prove little enough; and for this reason, as soon as the farmer is in circumstances to enable him to do so, it would be his interest to slate his house and out-buildings, which, in the end, would be found the cheapest roof, and would preserve, for the use of the farm, the large quantity of straw which is annually consumed in repairing the thatch.

## CONDITION OF THE AGRICULTURAL POOR.

(To the Editor of the Morning Chronicle.)

SIR.—I had little hopes that the sufferings of the poor in the neighbourhood of Dunmow would have obtained publicity through your paper, or you would long since have heard from me. For years the infamous system of paying part of the wages out of the poor-rates, had not only been going on, but also sanctioned by the magisterial clergymen, who farmed their own glebe, until the Poor-law Bill came into active operation. The consequences are, that while the wages of 6s and 7s a week have, in no instance to my knowledge, been increased, the allowance from the poor rates have been discontinued. The sufferings, the heart-rending sufferings, of many poor families in that neighbourhood beggar description. Upon my inquiring of the inmates of two cottages, which they rent from me at 60s a year, why they had not had some windows repaired, they most pathetically showed me their wretched condition; and when I even reduced the above trifling rent, while they gratefully acknowledged my kindness of intention, they confessed it was not a relief adequate to their necessities, in consequence of the action of the Poor-law Bill reducing wages a fifth. In the neighbourhood of Marlborough the same circumstance occurs. I lately visited a parish near Salisbury, where there is not a labourer who receives more than 7s a week; and, in the neighbourhood of my own estate in Dorsetshire, the wages do not average 8s. The country gentlemen first procured a reduction in the price of labour, by a portion being paid out of the poor rates, and then obtain an Act of Parliament which destroys such arrangement, without giving to the poor man compensation.

My tenants are honest hard-working men, with families too young to render any assistance to their fathers, who each receive 7s a week, and are better off than others. Lord Maynard, who shows a most kind feeling towards the labouring poor, has allowed, as lord of the manor, other labourers to bring the poor land adjoining their own cottages into cultivation. Now, Sir, I request you to inquire whether his Lordship has by means of his steward a right or intention to claim that land so brought into cultivation. At present, these poor bondsmen as they feel themselves, are obliged to accept anything upon any terms, until the storm, which is silently gathering, bursts forth, unless, indeed, the good sense of the present Administration avert it, and, at least, fix a minimum price of labour.

I am, Sir, yours, &c.

London, Sept. 10.

## ON THE WINTER MANAGEMENT OF POTATOES.

BY MR. TOWERS, AUTHOR OF THE DOMESTIC GARDENER'S MANUAL.

(From the Quarterly Journal of Agriculture.)

A great deal has been written upon the failure of potato crops, and many contradictory opinions have been hazarded. The fact appears simply to be this: if failure from disease have taken place, the evil has been local, or nearly so, from a species of *endemic*, whose ravages were confined to certain districts, and dependent upon causes not in general operation. I have never witnessed such a failure; nor have I seen, nor correspond with, any person who has traced its effects; but one solitary instance of a total loss of a variety occurred to me in 1835, under circumstances so extraordinary, that I think it desirable to describe them before I enter upon the consideration of the chief subject of this article.

In 1834 I received from a friend three or four potatoes, which were said to be well adapted to garden culture, but not very suitable to the field. The skin was almost black, in some parts approaching to a deep mulberry tint; the form very good, round and perfect; the tuber was tolerably well supplied with eyes, but the size of it was rather small. The potato, when boiled, was good flavoured, mealy, and its colour almost white. The four potatoes yielded a crop sufficient to plant one entire row, about seven yards long, the tubers being uncut, and placed six inches apart. The soil of the plot (it was in a garden) was a sandy loam, strong, and naturally binding, which texture, my experience teaches me, is always found whenever a very large proportion of coarsish, gravelly sand exists in a soil that contains more chalk than alumina (the matter of clay). The purest and most unctuous loams appear, by my analysis, to abound with fine soft sand (siliceous earth), and but little coarse gravelly matter. However, the loam I employed, which had been trenched some years ago to the depth of twenty inches, and manured in routine sufficiently for most crops, was exceedingly suitable to the potatoe, and was planted with three early varieties of that vegetable, to the right and left of the row which contained the black tubers alluded to. The rows were formed about one yard asunder, and thus every variety may be said to have been planted in the same soil, and subjected to the same treatment.

The plot was planted very early in the season; and this leads me to remark, that no advantage appears to be derived from such a practice, for the tubers remained long inert, and did not vegetate till the usual period, when the sun acquired power, and produced that degree of moist temperature which the potatoe requires; in fact, I found that those tubers which were put into the ground late in March, or early in April, were excited equally soon as others which were set in February.

All the varieties, however, rose with equally apparent strength and vigour; and the blacks produced as perfect and well developed a row of shoots as any of their competitors; and these continued to thrive till they attained the height of five or six inches, then a change of colour became manifest, and the leaves, instead of retaining the dark healthy hue natural to the variety, assumed that of a sickly yellow; growth ceased, the plants stood still, and, though they appeared to live during two months, dwindled gradually, and at length died away, and vanished. In the mean time, every ordinary care was employed to excite vegetation; the ground was lightly digged,

hoed, kept clean; and a portion of light earth brought up to and about the stems: but all was to no purpose. The other early varieties progressed luxuriantly, and yielded fine and healthy potatoes, during July and August. When, however, the ground occupied by the diseased roots was examined at the period of the final digging, *not a single vestige* of a potatoe could be traced—all had vanished; and thus the destruction was found to have been complete. The phenomenon—for such I regard it—appears inexplicable; I do not perceive a cause whereby to account for it; it is involved in mystery; for although the drought of summer produced the effect of diminishing the yield of *all the late crops*, I had not in any part of my grounds another instance of failure from disease.

If the destruction complained of in the north of England, were not caused by a peculiar local agency, it had its origin, I presume, in some improper treatment of the seed potatoes at the time of digging, or during the succeeding winter. If a potatoe crop ripen late in October or in November, there exists a great probability that the tubers will be exposed to some degree of frost; and if, after a fine clear day, when a considerable quantity has been dug up and lies exposed, the thermometer, about sun-set, fall to a degree or two below *thirty-two*—the freezing point—the skin of the potatoes being in a moist state, will be covered with frosty rime, and after a very short exposure become decomposed. This accident occurred once to me when I was taking up a valuable seed-stock of several new varieties which I had received from the President of the Horticultural Society, and wished to retain in separate heaps till they could be stored away and properly marked. Three degrees of frost took place before the twilight set in, and though every exertion, consistent with the required attention to sorting, was made to house them, numbers glittered with frosty crustation. In the ensuing season, when we began to plant, I found the cuticle gone or abraded, and the pulp rotten in many places. The eyes of potatoes so decomposed become effected; they are either inert, or protrude poor weakly sprouts, which never succeed in their future growth, and cannot possibly yield healthy tubers. I am certain that numbers of frosted defective sets are planted; and if it so happen that the whole of the seed-stock be more or less affected, it will always be wise economy to plant the potatoes entire; for though three-fourths of the germs may be inert, one or two that are sound may remain; whereas blanks must occur in the rows where cut sets that have diseased eyes shall be employed.

In collecting a large plot of potatoes, the judgment of the farmer must direct him in employing an appropriate method of protection; but as a perfectly dry condition of the skin is the greatest means of security, the roots ought to be placed under cover of an open shed, if possible, till the moisture evaporate; a common sheet let down in front of the opening during a keen night will effectually secure the potatoes, because they cannot be kept too cool, provided they be screened from actual frost.

Heat and moisture are the agents which stimulate vegetation; light is the element of colour and maturity; these are facts now acknowledged by the wisest physiologist, and confirmed by the experience of every day: hence we are taught that preservation of potatoes, designed either for food or future cultivation, must depend on the absence of these stimulating agents. It appears, probable, therefore, that the ordinary practice of "pitting," that is, of burying the store in broad trenches, coated with straw and covered with a ridge of earth, is very far from judi-

cious. The ground is always more or less moist, it is also warm enough to produce some degree of stimulus; and thus, after the ridges have been exposed to the rains of an entire winter, and the earth on every side becomes saturated by water, it is evident that the lining of straw, or other vegetable decomposable matter, will be acted upon, and tend to produce heat. The potatoes therefore push, and it is no uncommon circumstance, at the opening of a pit, to see the whole surface of the potatoe stock covered with a matting of long white shoots, every one of which has been protruded at the expense of the pulpy nutritive substance of the roots. If pits be employed, it would always be wise to dig them in a dry spot of ground, protected by a covering roof of some kind or other. Water should be excluded, and the roof will also prevent much of the operation of frost; but the greatest security will be obtained by excavating the dry earthen-floor of some barn or out-house, prepared for the express purpose; if the potatoes be laid upon dry ground, a little below the surface level, and covered with a few inches of perfectly dry litter or sand, no frost of ordinary character can injure them. In fact, the potatoe will support a great degree of cold, as I have amply proved during the last fitfully severe winter. I deposited my seed-store of early kidneys at first in a temperate cellar, but perceiving that the eyes began to break, though the heat was seldom above 45 degrees, I had them removed to and laid on the floor of a barn; before they were properly secured, frost of extreme severity occurred, the mercury descended 15 degrees below the freezing point, and some of the exposed roots were more or less coated with rime. They were then covered with straw and sacks; some also were put into chests with dry hay; but every precaution was employed to prevent the accession of heat. The atmosphere of the barn (which was frequently open during six hours of the day) was on several occasions cooled far below the freezing degree of Fahrenheit, yet when the tubers were examined in March, they were found in so perfect a state that I hesitated not to plant the whole of them; all, however, were put into the ground entire, and they vegetated with extreme regularity.

We cannot, perhaps, refer to Mr. Cobbett as to an unquestionable authority; but he resided so long in America, that his evidence, when it accords with that of others, must be received as adding force to the facts adduced. Now, he states, that apples frozen as hard as stones by the severe frosts of the climate, receive no injury provided they be subsequently thawed in the dark. An observant gentleman, who was for years a surgeon in the army, and served in Canada and the neighbouring States, assured me that a linen sheet thrown around the fruit, so as completely to cover it, was found effectually to secure it in situations wherein the severity of the frost could not be guarded against by any number of blankets. In France, also, where the winters are extremely keen, but not damp, as those of our islands, apples are placed upon shelves ranging one above the other, in cold barns or other erections, capable of being ventilated at pleasure. A curtain is let down in front of these shelves, so as entirely to screen them and the fruit, and the latter is effectually preserved. Linen or silk is to be preferred to cotton or woollen; but *how* a fabric so thin in texture can act, is a subject which merits the attentive investigation of the philosopher. I recite the fact on the authority of the gentleman above alluded to, because he witnessed the practice during the march of the British forces through the south and west of France in 1814.

I am unable to speak confidently of the success which would attend a similar method applied to the preservation of potatoes; apples are matured *fruit*; potatoes are a sort of underground receptacles of *systems of life*; each eye is endowed with the vital principle; but certain I am, that these eyes have endured, and will support a degree of cold, which is scarcely a degree above the freezing point of Fahrenheit. The great points to be observed, are a degree of cold which shall keep the eyes or buds silent, with entire absence of moisture. In some future paper of my horticultural series, I propose to describe a method of planting which I have adopted with all my early crops of the present year, in order to provide for a due and complete protection from spring frost, and from drought during the succeeding summer; it has answered my most sanguine expectations to this time, but it would be premature to write more confidently till I witness the final result.

Potatoes are so extremely valuable to the farmer, to the cottager, and to the public at large, that it behoves every one who is in any degree taught by experience, to communicate, as far as his abilities may enable him to do so, any mode of culture or of keeping the root during winter, which he has found to increase the *yield*, or to secure the *store* in a sound and healthy condition. Much has been conjectured and written concerning atmosphere, predisposing causes of decay, of deprecations by worms or other insects, of diseased seed-stock, and so forth. Each of these causes, and many others, may have operated injuriously in some places, and under certain peculiar circumstances; but to me it appears highly probable, that injury from frost prior to housing, and subsequently, the exposure to too great a degree of heat in moist situations, have generally been the proximate causes of the mischief complained of. If the farmer could be prevailed with to change his practice in the field; to carry his crop, in detail, before the hour of sun-set to some dry airy shed or shieling; and, after the potatoes have become perfectly dry, to store them up in a building similar to that employed by the best gardeners in large establishments for the preservation of apples and pears, one which is walled round, and roofed so as effectually to prevent the ingress of actual frost, but latticed for the admission of air and the obstruction of light, he would find his account in the alterations.

I have said enough upon general principles, and any man of acute observation may improve upon them as far as concerns local conveniences; in the mean time, it would gratify me very much, could I induce Mr. A. Gorrie to take up the subject: he is well acquainted with the climate of Scotland, and is intimately versed in the practical science of gardening, as respects North Britain. No one can peruse his papers without deriving pleasure and instruction from them; and, individually, I have been so flattered by the expression of his kindly feeling, that I am induced to hope he will, at my appeal, come forward to investigate a subject which cannot fail to excite the liveliest interest in the mind of every one who has the welfare of the labouring population at heart; for next in order to the cereal crops, the potatoe claims the utmost care of the patriotic agriculturist.

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A GIGANTIC CABBAGE.—On Saturday se'nnight a cabbage, of the drumhead kind, was exhibited on Llanely market, weighing no less than 25lbs and measuring between the inside leaves upwards of 4 feet in diameter. It was grown in the garden of Mr. Evan Evans, merchant, of that place.

## AGRICULTURAL REPORTS.

## LINCOLNSHIRE—NORTH AND EAST.

The fine rain, which was the subject of my concluding report for the last month, did much good to the pasture land, and gave it a start towards growing, which the succeeding week of warm weather continued to promote. The first week in September proved the best of the harvest season, and much of the wheat and oats were carried in good condition. On the 6th equinoctial gales commenced, attended by cold rain, and continued up to the 20th, during which time no harvest work could proceed; and though the cold prevented the barley from sprouting, it has got much stained, and its malting properties considerably impaired. On the high Wolds much remains uncut, and a large quantity far from ripe, not having made any progress during the last fortnight. We have now had a few days dry and fine, and the barley which stood out the gales has got cleared off the land, and some progress been made in what remained standing. The beans are nearly all cut down, and produce a very light crop. The red clover left for seed has been out during the stormy period, and if not otherwise injured will have lost its bright colour, and show a dull sample. Fat cattle and sheep retain a high price for this late period of the grazing season, which must arise from a thin supply compared with former years. Score beasts that are low in condition sell heavily, but sheep of all kinds bear an excellent price. Lambs, from 20s to 29s; store ewes to 38s. The turnips have not improved the last month equal to expectation, and the black caterpillar still continues his depredations in some situations. The eddishes have much improved, as well as grass land, but on the whole, food for the winter is scarce and dear. The wool trade continues steady at former prices, without any bustle or eagerness to purchase. We have no corn markets for any thing in quantity, but wheat, which has not in this county kept pace with London and Liverpool. Many small farmers who watched their opportunity got their wheat tolerably dry, and by immediately thrashing, have met the millers with a sufficient supply for immediate consumption, when mixed with their stocks of old not yet exhausted, from which cause old is not much inquired after, and the new sells from 44s to 48s, and a few choice samples of white up to 50s per qr.

**THE BLACK CATERPILLAR.**—The most effectual recipe to destroy the black caterpillar, we find is to mix quick lime, in powder, *four pecks with one pound* of white arsenic. Sow this mixture over an acre of plants while wet with dew, or after a shower of rain, and it will generally succeed.

Spilsby.

G. B.

## OXFORDSHIRE.

As stated in our last, harvest here became general about the 12th of last month, and with favourable weather; still the progress made was by no means equal to that of former years, owing to the wheat and barley not being sufficiently ripe. But what was cut might have been housed in capital order, had common patience and prudence been exercised; but unfortunately such was the haste manifested by many farmers to carry their wheat in less than the usual time after cutting (when it required double) that much of the crop

is unfit for present use and must stand over until spring. Barley, as was expected, proved to be rough and high coloured; still the early sown does not weigh amiss. There is in this and the adjoining counties a considerable breadth to cut, and containing (as it does) so many green ears will require a deal of field room. Though thinly planted, the ear is long, and will yield well from the straw; nevertheless, the crops on the thin stone brash soils was so light and full of weeds, that it must fall far short of an average produce. Beans prove to be by far the worst crop, and perhaps never were stacked in less room; we consider them on the whole as well ended, there doubtless are some exceptions; the quality though not so superfine as last year, will be good. Peas of all kinds we consider to be a full average; we have heard of some few complaints of failures, we put those against a large breadth where they proved most abundant and of good quality, moreover well got up. The turnip crop turns out to be exceedingly various; here and there we have some few capital plants of Swedes, while in many others there is scarcely a plant to be seen, and owing to the unusually cold nights we have for some time experienced, the late sown ones, which escaped the fly, have made little progress and are never likely to be worth hoeing; the loss will be sensibly felt towards spring, especially as the meadows and pastures are already eaten barer than we often see at this early period of the autumn. The prospect of a want of keep has had an effect on the sale of slow stock, but more particularly sheep, which have been a drag in some of our recent fairs and markets. Mutton is also reduced in price. Beef supports late prices. Fat pigs have become scarcer, and an advance in price has been the consequence of a short supply. A large quantity of winter vetches will be sown this season; they yield well, and the price, as well as the superior quality, will induce many to sow largely, the more so, as the trifolium incarnatum proved a failing crop, owing to the severe frost in the spring. But we are pleased to learn that, notwithstanding the disappointment last season, much has been sown, the price, 25s to 28s per cwt., being tempting; the high price of hay (from 5l to 6l per ton) may also have had an effect. Wool will soon be in but few of the growers' hands, and has been selling at from 42s to 48s per tod. We anticipate a dearth of employment during the winter months; the thrashing will be next to nothing as compared with last year, and it looks ominous to see crowds on the roads breaking of stones before the harvest is ended. Nothing but the public works now in progress can prevent the union workhouses being crowded to excess; at present the inmates are comparatively but few. Wages vary from 8s to 10s per week. Much alarm is prevalent among the lower class on account of the high price of coals.—Sept. 27.

## SUSSEX.

At length the harvest is completed, and we proceed to give the account of the various crops, as far as they have come under our observation. The wheat is certainly *below an average*, and nearly the whole has been carried in such bad condition that very little will be fit to grind by itself till after the dry March winds, which we generally have at that

time of year. Barley also is a short crop, *much below an average*. A barley stack is quite a rare sight, as on many farms there is not one, the barns holding the whole. From what we learn of other counties, particularly Norfolk and Suffolk, Essex and Cambridgeshire (all great barley counties) we have been, compared with them, highly favoured as to weather. Little barley has been injured by the rain; indeed, we should say, on the whole, it has been benefited. We have only had showers, with cold brisk winds, so that little or no barley has been sprouted in the fields; whilst we hear from several Norfolk and Suffolk friends, who came to attend Mr. Ellman's sale at Glynde, and the Lewes sheep fair, that they have had incessant rains for the last three weeks, which have very much discoloured a great proportion of their barley. Oats are below an average. Peas in some places are very good; in others, not worth harvesting. Beans, generally, are very good; and tares the greatest crop perhaps ever known. At Mr. Ellman's sale on the 20th there was a numerous and respectable attendance of Southdown breeders from many different counties, and the ewes were sold and the rams let at very satisfactory prices; the ewes averaging nearly 50s, and the rams letting at from 11 to 25 guineas. His Grace the Duke of Richmond honoured Mr. Ellman by sending two ram lambs to compete for the pair of goblets given by Mr. Ellman at his sale, bred from the Glynde flock, and was the successful candidate; the judges pronouncing the two shown by his Grace to be the two best exhibited. At the great sheep fair at Lewes, on the 21st, about 46,000 sheep and lambs were penned. A few lots of ewes were sold at high prices, but a large proportion at about 27s, and many driven home unsold, to be brought to the next Lewes fair on the 3rd of October, which will be a large one.

#### NOTTINGHAMSHIRE.

I am almost weary of sending you my monotonous reports, having to sing the same dolorous song so many times over. Since my last report the weather has been very unsettled, with a west and north-west wind, accompanied with extreme cold rains, which have had a very severe effect upon vegetables generally. The appearance of the grass fields and other vegetables present a blue chilled appearance, more resembling the month of March than the present season of the year. The uncongeniality of the month has been a great retarder of the harvest, and has caused grain of every description to be got home in a hurried manner, and of course not in a first-rate condition. Wheat is generally secured in most parts of the county, so that now we have done thinking of an unsound harvest; the markets are becoming more steady, but not improved in quality; the samples come into market extremely coarse and light, and but few parcels are free from smut, more or less. Barley and oats are inferior in quantity and quality to last year: prices are advancing, and I think are likely to advance from the deficiency of the crop; I think I may safely say there is not so much straw by one-third, in proportion to last year, so that the quantity of corn must necessarily be far short to what it has been for some years past. Lentils are almost finished, and I should think that the farmer never looked to this crop with a more watchful eye; he has had nothing else to rely upon, the uncongeniality of the season proving so unfavourable to the clover eddishes, and other grasses. Food of every description for cattle is extremely scarce, and eddishes of every description are selling at amazing high prices. Hay is selling at prices from 6s 10d to 7s 10d per ton very freely, so that the farmer

would do well to take time by the fore-lock, and not let his servants cut too deep into his hay-stack at the commencement of the winter, for he may rest himself assured that if he lives to see another spring, that the price will be a most exorbitant one. It is generally considered that turnips that have withstood the early ravages of the fly, may now be considered safe, but this year we find it otherwise; many fields within my observation that appeared as fine plants as ever nature produced, have been attacked by the smother fly, and completely destroyed,—thus we see this year that turnips have had nothing but enemies to contend with—a host of them in rapid succession: what one has left the other has completely destroyed, so that, as I said before, it behoves the farmer to seize time by the fore-lock, and use every handful of food with the greatest economy possible. Cabbage has suffered the same fate with the turnip; fine fields that had the most imposing appearance you may now find a complete wreck, the smother fly has attacked almost every plant and every leaf, covering the whole in a complete body. There is a variance of opinions as to the cause of plants being attacked by this fly; whether it is from a superabundance of fly brought by some particular winds, as we find is the case at some periods of the year, or whether it is the cold uncongenial weather that brings on an unhealthy state of the plant, and creates the fly; I am rather of the latter opinion, for we invariably find that the smother fly always attacks the most unhealthy plants first. I should feel obliged by any of your numerous readers giving their opinion upon this subject. Our corn markets are becoming more settled than they have been of late, the holders of old wheat selling more freely, now the new is secured. Oats and beans meet with a good demand, at advanced prices. Barley finds purchasers at good prices, and I think I may safely say, the markets are much improved. There is a universal complaint of smut amongst the farmers. I saw in the *Mark Lane Express* a few weeks ago, various recipes for the cure of smut; now the same gentleman would oblige me by answering the following questions:—What is the cause of smut? What are the effects the various washes have which are used as a preventive? How they act upon the seed? and why the first recipe he produced acted more beneficially than the other?—I have found it prevail under every mode which he has adopted, and a farmer in our neighbourhood, a few years ago, had a field of wheat that stood till it was what is termed dead ripe, and in removing, lost a considerable quantity of its grain; the same field was fallow wheat—had some stunted ears in it, and was seeded down with white and red clover; the year following the same field, from the quantity of wheat that had shaken out of the preceding crop was sufficiently thick and healthy to remain a second year, and did so, and was taken off a good crop and entirely free from smut; and I myself had a field last year, that was white wheat, and smutted; the same field was seeded with red clover, and missed; this last spring I had sowed it with oats, and amongst the oats was a considerable quantity of wheat, that had shed out the preceding year, the oats that were sown being entirely free from wheat, so that the wheat which grew amongst the oats, must be of the preceding year's growth, upon the same land. Now, that wheat which grew amongst the oats was entirely free from smut, as were the former, which seeded itself. Well, last Michaelmas I sowed the same wheat that was taken off the field just mentioned, that was sown with oats this last spring, in a field adjoining, that was a summer fallow, the seed was well soluted

with wash, and afterwards quick lime applied, and now we have taken off a good crop of wheat. I really cannot give an opinion upon the subject, for we find it under every mode of treatment which has been adopted—no disparagement to the gentleman who gave us the recipes, rather—many thanks to him and to all who may disseminate any thing to the improvement of agriculture. The best method I have found, or rather the most effective one, when you have it, to get rid of it is this. I order the person who thrashes, to set the wheat on an end, the smutted ears are then very perceptible, and may be picked out with ease, then to open the sheaf, and examine the short ears; by this method you may bring your parcel to market very little inferior to that which is free from smut, allowing the person who thrashes 2d per bushel for the extra labour bestowed upon it. I forgot to remark that the corn fields I have mentioned that seeded themselves, of course never were washed, nor soluted with any thing, which appears to still place the question in obscurity.—S.P.G.—Sept. 21.

#### NORFOLK.

SIR.—Although harvest has been generally completed in this district these twelve days, we have delayed handing you our annual report of the crops, it being our wish to ascertain, as nearly as possible, both quantity and quality; also to inspect the deliveries now coming to market. The weather during the harvest was generally fine, and, upon the whole, every kind of grain (beans excepted) secured in good order. Wheat is rather short of an average crop, a great portion, however, will be of excellent quality; some too hastily carried is of a secondary description, the weights of those already delivered are from 61 to 64 lbs per bushel. Barley may be reckoned an average crop, the greater part of which, both common and Chevalier, is of fine malting quality, particularly those from off our best soils, the weight not quite so heavy as last season but much more tender; those grown on the poor and heavy lands are rather coarse, but well suited for distillation, being perfectly sound. There is still a great deal abroad on the coast and north of this place, which has received considerable injury from the continued wet and windy weather, it being lodged and much sprouted: some little quantity grown in this neighbourhood has been delivered, and weighs from 51 to 55 lbs per bushel as in quality. Beans not much grown in this district; the crop, we understand, is good, but are yet in the fields waiting more favourable weather. Peas are all secured in good condition, quantity abundant, and quality fine. Oats are by no means a good crop, the colour indifferent, and the weight not equal to the growth of last season. No stocks of old grain on hand, wheat excepted, of this article some quantity remains with our opulent farmers, who are not inclined to sell at present, expecting higher prices. We remain, Sir,

Your's very respectfully,  
WM. HANKS AND SON.

#### LIVERPOOL, SEPT. 1.

At the close of last season we thought it desirable, in lieu of waiting upon you with the usual statement of the monthly deliveries of Grain, &c., into this port, to give a return of the total quantities received during a series of years; this we have, in the table below, extended to the end of the month just past, and we also attach the price of each article of the free trade at the several periods, taking the value of Irish produce as the standard.

On reference to this table, a little increase will be observed in the general supplies for the last twelve months over those for the year immediately preceding, arising as respects Wheat, from the greater quantity

of English brought coastwise, but in making the comparison with the average of the three years 1832, 1833 and 1834, we find a deficiency of 133,000 quarters of Wheat and Flour, and 87,000 qrs of Oats and Oatmeal. As regards prices, there was, with little exception, during the years 1829, 1830, 1831, 1832, 1833, 1834, and 1835, a gradual depreciation in the value of almost all agricultural produce, especially Wheat, which, at the close of August, 1835, was selling as low as 5s 6d per 70lbs. The Corn trade, however, has since participated in that improvement which has pervaded most other branches of commerce, and Wheat may now be noted fully 25 per cent, and Oats 12 to 15 per cent higher than at the period just referred to. The present stocks of free Wheat do not materially vary in amount from those held on the 31st August last year, say about 140,000 quarters; there is now, however, a much lighter stock of Flour, and of Barley and Oats the market may be almost said to be bare. There are somewhat more than 40,000 loads of Oatmeal in granary, and there may remain of the recently-liberated Foreign Peas, about 9,000 quarters. Free Beans are scarce, but the stocks in bond may be considered available to the home market. The sales in Wheat have, throughout the season, been almost entirely restricted to our town and its vicinity; the low rates and superior quality of the English samples have at all times kept Irish out of Manchester and the surrounding district, nor has the Flour trade of the port been much more favourably situated. During the month there has been a pretty good demand for Wheat from our millers and dealers, but prices in the early part of it, influenced by fine weather for harvest, were reduced 3d to 4d per bushel, subsequently they have nearly recovered this depression, and are now much the same as on the 30th ultimo. The best English white is worth 7s 9d to 8s, red, 7s 4d to 7s 6d, Max and Scotch white, 7s to 7s 6d, red, 6s 10d to 7s 4d, and the best Irish red, 6s 9d to 7s; middling runs of the latter may be bought at 6s to 6s 6d per 70lbs. The home demand for Flour has kept pace with the supply, and there has seldom been a season with so little old left over, or so little out of condition as at this moment. Prime brands of English are worth 40s to 42s, and Irish, 37s to 41s per 280lbs. The Oat trade has been uniformly dull, with prices rather on the decline, and this in the face of not only one of the lightest Hay crops that has been experienced for many years, but probably one of the lightest stocks of Oats. The best old Scotch are held at 3s 4d to 3s 6d; choice mealing qualities of Irish 3s 1d, and fair provender 2s 11d to 3s per 45lbs. A few thousand quarters of Irish new have already appeared, and the quality good, and have been sold at 3s to 3s 3d; at this moment 3s 2d per 45lbs may be considered an extreme quotation. Old Oatmeal has met a fair retail sale at 24s to 26s per load of 240lbs, and a few parcels have also changed hands on speculation. Prices of new Oatmeal opened at 31s and have receded to 27s 6d per 240lbs. The transactions in Barley have been confined to the sale of some parcels of old (which has been kept over) at 4s to 4s 2d, a little Irish new Bere at 4s per 60lbs, and a small cargo of Foreign, for malting, at 36s per imp. quarter, duty paid. Duty has been paid on 4,800 qrs of Peas, and 1,150 quarters of Beans. At a reduction of 3s to 4s per quarter on previous rates, say at 34s 6d to 37s, there has been a considerable clearance of the former, there are few, if any, now offering under 38s to 40s per quarter; the best English are held at 42s to 44s per imperial quarter. Several cargoes of Beans have been taken on country account; a few fine have brought 43s, but the bulk of the sales have been at 35s to 37s per quarter. The remainder of a cargo of Indian Corn has been retailed at 38s to 40s per 480lbs. There has been a very large business in bonded articles, chiefly for exportation to the United States and British North America; the exports of Wheat have been to the extent of 9,300 quarters, and those of Oats to 3,300 quarters; upwards of 12,400 barrels of Flour have also been re-shipped, the latter chiefly on owners' account. The sales of Wheat and Oats have, however,

greatly exceeded in amount the quantities yet exported; of the latter, 8,000 to 10,000 quarters have changed hands at prices varying from 1s 10d to 2s 4d; but for the most part at 2s 3d per 45lbs. The demand for Wheat has run chiefly on the recent importations from the Lower Baltic Ports, which have found buyers at 4s 4d to 4s 6d; latterly a small cargo of very fine has brought 4s 8d; a parcel of inferior Danzig has been sold at 4s per 70lbs. The transactions in Flour have not exceeded a few thousand barrels at 24s to 25s for fresh Baltic and 23s to 25s for United States sour; the latter price was paid for a little Western Canal. The stocks in bond consist of

WHEAT.	OATS.	BARLEY.	BEANS.	PEAS.	FLOUR.
Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Brls.
140,713	13,556	4,187	17,242	3,788	94,587

It is yet too early to form anything like a correct judgment upon the present crops; in the Southern counties of England a large proportion of the Wheat is stated to be secured, and, judging from the fine weather during harvest, it ought to be in good order; the generality of the samples, however, that have appeared in the London market do not bear out this expectation. In the midland counties, also, a great part of the Wheat is cut, and a considerable proportion of it housed, but in this district and further north there is little yet saved. Latterly the weather has been showery, and such, at least, as to protract harvest. The reports are very contradictory as to the yield per acre, but it is pretty generally agreed that the breadth of land under Wheat is much reduced, and that there is reason to apprehend that the crops will be found below an average.

IMPORTS OF GRAIN AND FLOUR into LIVERPOOL for the last 8 years, commencing 1st Sept. 1828, with the average prices for each year.

	Wheat	Oats.	Barley	Beans	Peas.	Flour.
	British Qrs.	British Qrs.	British Qrs.	British Qrs.	British Qrs.	British Qrs.
Total Imports 12 months ending Aug. 31, 1829	332132	421819	32316	18533	7000	98490
Prices on do. do. p. 70lb p. 45lb	10s 2s 7d	4s 9d	31s.	41s.	34s.	2891b
Aug. 31, 1830	267280	460121	48080	27337	5331	99350
Prices on do. do.	8s 9d	3s 10d	3s 10d	3s.	48s.	48s.
Aug. 31, 1831	266649	391750	55449	24331	4170	80026
Prices on do. do.	7s 5d	3s 2d	3s 10d	40s.	42s.	41s.
Aug. 31, 1832	113454	160532	48235	17896	1711	164007
Prices on do. do.	8s	2s 6d	4s 4d	38s.	38s.	49s.
Aug. 31, 1833	159802	368357	58354	21655	5127	289938
Prices on do. do.	7s 10d	2s 9d	4s	35s.	44s.	45s.
Aug. 31, 1834	39381	311766	58051	23434	2057	258002
Prices on do. do.	5s 9d	2s 6d	4s	35s.	44s.	37s.
Aug. 31, 1835	296775	277583	67993	17901	2202	276223
Prices on do. do.	5s 6d	2s 10d	4s.	36s.	39s.	35s.
Aug. 31, 1836	327103	315361	69557	29578	2735	294591
Prices on do. do.	6s 11d	3s 2d	4s 2d	39s.	42s.	50s.

NORTH DEVON.

The heavy rains which fell at intervals from the 17th until towards the end of the last month, impeded the wheat harvest, without doing any serious injury; this description of grain is now nearly secured, but little of it has yet appeared in the markets, and this is found unfit to grind by itself, being so extremely soft and out of condition; the quantity of straw proves  $\frac{1}{3}$  to  $\frac{1}{2}$  short of the produce of last year, therefore there is no doubt of the crop being considerably below an average, though the yielding is admitted to be good, with the exception of its having more smut (when the condition has improved), the quality will be equal to the growth of 1835. On the best lands, the cutting of barley, and oats, became general the beginning of this month, about which time the rain set in more heavily, and continued with little intermission until the 11th inst., since which the weather has settled fine, and the farmers have been enabled

to house a considerable quantity of corn in good order; in many fields where it was fully ripe a large portion of grain has been beaten out by the heavy rains, and in most situations the corn lying on the ground has been slightly stained, though we have not heard any complaint of its sprouting; on our cold heavy soils, and coarse Moorlands, it will require three or four weeks fine weather, to ripen a considerable breadth, both of barley, and oats; this portion there is no doubt, will be found light, and of inferior quality. The barley which has been cut and secured without rain, is high coloured, and rather coarse, but of sufficient body to weigh 53lbs per bushel, when fit for use; this grain, as well as wheat, and oats, will take some time, before it can be stored, or shipped in any considerable quantity; the barley which has been exposed to the late rain, and free from stain, has improved in appearance. It was thought at the time of our last report, that the turnips would generally be a good crop, since which, the black caterpillars have proved very destructive, and entirely cleared many fields from every appearance of vegetation; in the fields least injured, the turnips are left in patches, and the crop rendered equally deficient as in the last year; in some districts for ten or twelve miles, the potatoes have suffered fully as much, whilst in other parts they look healthy, and the only complaint is the failure in first growing, the late injury has been done by caterpillars and grubworms, which in some situations have cleared whole fields, whilst in others large portions are as completely cleared as if cut with a scythe, and when the insects reach the extremity of the field they in general begin again at a part distant from their first feeding; it however appears rather extraordinary that the early kinds of potatoes are not in the least injured, whilst those of the red apple kind are entirely consumed; many fields of hay were out during the late heavy rain, which are found so much injured as to be but of little value for fodder; there was a good supply of cattle at South Malton fair on the 31st ult, particularly of sheep, which met a free sale, as some agents were employed in purchasing for the Welch markets; bullocks were not so much in demand, though offered at declining prices, cows and calves being scarce were sold on good terms.—Sept. 15.

KENT.

We are on the eve of finishing harvest, after having it retarded by the frequent showers which have fallen of late, so much so, that there has not been a day this week fit to carry corn, of which there is yet some barley remaining which will be sadly discoloured, if not sprouted. The wheat was mostly carried previous to the change of weather, and of this crop, the opinion at present is, that it will not be an average one, owing in a great measure to the small breadth of land sowed with this grain, and the lightness of it on the poor soils. Barley is expected to be quite an average one, although in a great number of cases it will be very unproductive, but the unusual number of acres sown this season will make up the deficiency. Oats, of which we are not large growers, is certainly below the average. Peas, with few exceptions, are good; but of beans, the crop is various; some fields very good crops, others but very indifferent. Turnips, cole, and potatoes have improved very much of late, owing to the rains. In the cattle markets there has been more business done, owing to the keep being more plentiful, and the sale at present is good for both beast and sheep. In the corn markets we have been doing business on rather better terms than last month, and there seems a probability that good corn will command good prices for some time to come at least. The market for wool is at present very flat, the holders looking for higher prices, while the staplers are looking downwards.—Sept. 9.



## GLAMORGANSHIRE.

The weather for the last fortnight has been wet, and harvest operations are seriously retarded; the corn housed in that period is not in good condition. The bulk of the wheat crop on all the best soils had been previously secured in order, but on all the late soils, and in the hilly district, a great portion of wheat is still out. Some pieces of barley in the vale have been stacked, but none in the hills, and nearly the whole of this crop and the oats remain to be harvested. What has been cut down begins to be discoloured, and will soon sprout. The wheat crop is not equal to those of the last two or three years; the ear is well filled, but it will not weigh so heavy; it stood thin on the ground, and the bulk in the stack-yards is very deficient. The barley, even if well harvested, of which there is no prospect, will be a coarse sample, with a large proportion of thin grain. Oats are a better crop, and about an average, if they can be properly harvested. Beans and peas are very short in the stalk, and a light crop. Those modern locusts, the black caterpillars, continue to be most destructive to the turnips. This insect, which has not appeared to any extent for many years, until last summer, must now be added to the previous long list of enemies to this tender plant, and appears to be the most troublesome. The ravages of the fly, slug, wire-worm, grub, &c. take place only while the plant is young; but from the time the leaf appears, until the root arrives to maturity, it is a prey to the black caterpillar. At present they are more destructive than in any part of the summer. We know of no remedy at this advanced period; brushing them off checks their fatal operations on the plant, which they do not otherwise quit as long as any vegetation remains in it. When the turnip is small, it may be covered with quick lime, which is found beneficial. Ducks devour them greedily, and a well stocked rookery, which the farmers generally look upon as a great nuisance, might now be of great service in the neighbourhood. The mangels are small in size, and will be a defective crop. Potatoes have improved very considerably lately, and promise well. Hay is scarce, and now selling from 5*l* to 5*l* 10*s* a ton. The produce of the hay and pasture land throughout the summer having been extremely light, the stock of winter provender is far below the usual quantity. Grass and latter-maths still continue short, and stock will soon be required to be brought into the yard. The market for fat stock must consequently be scantily supplied for another year. The corn market is improving for old dry samples, which are likely to be in demand.—*Sept. 9.*

GENERAL AGRICULTURAL REPORT  
FOR SEPTEMBER.

As relates to the progress of the harvest during the month, the bulk, quality, and the harvested and unharvested state of the crops, both verbal and published, rumours have been exceedingly contradictory: whence we feel much difficulty, in endeavouring to explain what we conceive to be the plain and honest truth; as the frivolous west-end Cockney periodical scribes, who collect all their intelligence from taking a Sunday walk to White Conduit House, Kensington Gardens, St. James' and Hyde Parks, or, at the most remote distance, to Battersea Fields, will presume to know better than those justly entitled to the appellation of agricultural weekly and monthly periodicals, by incurring a heavy expense in endeavouring to obtain accurate accounts, written by practical agriculturists of unimpeachable character, and of dearly bought extensive practical experience. We consider, both the Scotch philosophy of measuring animals, and other farm produce, after the manner of the late shepherd, Hogg, measuring the quantity of salmon in the Scotch rivers, or the Irish exaggerated reports relative to a deficient crop, as of no utility whatever: the former having been completely refuted, by the Scotch beasts weigh-

ing, on the scales of the London butchers who purchased, from 80 to 150 lbs. each more than they were measured at: the Irish complaints being almost invariably closely followed by the arrival, in the London market, of great supplies of the very articles a scarcity of which had been complained of, as existing in the sister kingdom. Notwithstanding, however, that there is some exaggeration, even in the publications of Scotland, we believe, from the intelligence, in which we place the greatest degree of reliance, from all quarters, as well as from our communications with farmers, graziers, sheep and cattle salesmen, and other country gentlemen, that no fault can possibly be found with the bulk and quality of the present year's general corn and pulse crops: but there exists both in the north of England, and the northern parts of Scotland, apprehension, that a considerable breadth of barley, oats, and beans will be much damaged, if not wholly lost, on account of their ripening having been seriously checked by a long succession of rains; but everywhere south of Yorkshire, and to some distance north in that great county, the harvest, with the exception of there being still a few breadths of oats, beans, and barley, lying and standing even in our most southern districts, the harvest has reached an auspicious conclusion.

The hop harvest, the humidity and density of the atmosphere considered, has, since its commencement, proceeded with much less interruption than could possibly have been anticipated, and will be so good as to greatly deceive the nervous duty-mongers, though a considerable portion of those which have reached the Borough have been out of condition, and consequently have produced but low prices.

The early wheat seeding, which has now become general, is proceeding in Essex, Kent, Sussex, Berkshire, Buckinghamshire, and, indeed, some parts of Norfolk and Suffolk, as well as in the whole of our western and midland districts, under favourable auspices, whilst "gentle showers glad the plowman's heart, and make the earth mellow, for the reception of the seed." There are, at this time, said to be, in several parts of Berkshire and Wiltshire, well stocked fields of newly sown healthy looking wheat plants, several inches high, so entirely concealing the surface of the soil as to resemble rich pasture herbage. The pastures, too, are still fresh and luxuriant, and the sheep and cattle depastured in them, with live farm stock, in general, healthy and doing well. The latter crop of both meadow and seed hay, as far as it has been hitherto harvested, is said to have been pretty generally good. The growing tares, rape, turnips, and potatoes, are so far improved as to promise a full average growth, and the fruit crop, both in gardens, fields, and orchards, is described as unusually good.

As relates to the prices of farm produce, those of both fat and store stock, including milch cows and store pigs, have been somewhat, but not very, drooping: of poultry and dairy produce, as also straw and new hops, somewhat on the advance: of wool, hay, and horses, about stationary.

The best sign we can perceive of approaching agricultural prosperity, is the unusually limited number of changes of tenantry that are about to take place at the closely approaching Michaelmas. A great majority of farmers, however, seem to be still dissatisfied with both the recent Parliamentary as well as the Central Committees, and likewise with the new Tithe Commutation Act, and its *Commissioners*.

It seems to have excited a great degree of astonishment in the agricultural community, that nothing

was said in any of the speeches at the Northamptonshire Agricultural Society of the death of the late Rev. Henry Berry, a celebrated breeder of what is supposed, by some, to be the improved short-horned breed of beasts: but this is in perfect harmony with the French phrase, which asserts, "Quand un homme est mort, on ne lui pense pas plus."

Here follows a retrospect of the supplies and prices of live stock exhibited in Smithfield and Islington Markets, since that published in our last month's report:

SUPPLIES.

SMITHFIELD.

	Beasts.	Sheep & Lambs.	Calves.	Pigs.
Aug. 26. . . . .	425	7800	220	310
— 29. . . . .	2750	22590	325	360
Sept. 2. . . . .	375	7950	247	310
— 5. . . . .	2425	20140	260	330
— 9. . . . .	366	7320	210	315
— 12. . . . .	3750	26509	260	330
— 16. . . . .	458	8200	210	420
— 19. . . . .	3200	28500	270	380
— 23. . . . .	825	7100	290	330
Total ..	14574	136100	2292	2085

Supply of preceding month. }	13786	143310	2330	2560
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ISLINGTON.

	Beasts.	Sheep & Lambs.	Calves.	Pigs.
Aug. 26. . . . .	101	783	—	—
— 29. . . . .	314	2699	6	90
Sept. 2. . . . .	91	798	3	—
— 5. . . . .	195	2,762	6	—
— 9. . . . .	73	504	2	—
— 12. . . . .	214	2,105	5	—
— 16. . . . .	95	630	2	—
— 19. . . . .	227	2,385	5	—
— 23. . . . .	71	745	—	—
Total . . . . .	1,381	12,841	29	90

Supply of preceding month. }	1,696	15,725	65	10
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The above statements show, in the supplies of Smithfield, an increase of 788 beasts, a decrease of 7,210 sheep and lambs, 38 calves, and 475 pigs; in those of Islington a decrease of 317 beasts, 2,684 sheep and lambs, and 36 calves, and an increase of 80 pigs.

About 6,960 of the beasts which have formed the supplies of the above markets, came from Lincolnshire, Leicestershire, Northamptonshire, and our other northern grazing counties, up the St. Alban's road; about 4,870 up the other northern roads; about 1,260 from our western and midland districts; about 920 from Norfolk, Suffolk, Essex, and Cambridgeshire; about 440, by sea, from Scotland; about 120 from Kent, Sussex, and Surrey; and most of the remainder, with about 45 lusty Towns-end cows, from the marshes, &c. in the neighbourhood of London.

PRICES.

	Aug. 26.		Sep. 23.	
	s. d.	s. d.	s. d.	s. d.
Inferior Beef . . . . .	2 2	to 2 6	.. 2 0	to 2 4
Middling, do. . . . .	2 2	to 3 4	.. 2 6	to 3 0
Prime, do. . . . .	3 10	to 4 4	.. 3 6	to 4 0
Inferior Mutton . . . . .	2 6	to 2 10	.. 2 4	to 2 6
Middling, do. . . . .	3 0	to 3 6	.. 2 8	to 3 0
Prime, ditto, . . . . .	4 0	to 4 8	.. 3 10	to 4 4
Lamb . . . . .	4 0	to 5 2	.. 3 8	to 4 4
Veal . . . . .	3 10	to 4 8	.. 3 8	to 4 6
Pork . . . . .	3 8	to 4 8	.. 3 6	to 4 4

It will be seen, by the above statement, that all kinds of meat have experienced, during the past month a considerable decline in prices.

The following is a comparison of the supplies and prices of fat stock sold in Smithfield on Monday, September 21, 1835, and Monday, September 19, 1836:—

At per 8lbs, sinking the offal.

	Sep. 21, 1835.		Sep. 19, 1836.	
	s. d.	s. d.	s. d.	s. d.
Coarse and inferior beasts . . . . .	2 0	to 2 2	.. 2 2	to 2 6
Second quality do. . . . .	2 6	to 2 10	.. 2 8	to 3 2
Prime large oxen . . . . .	3 0	to 3 4	.. 3 4	to 3 8
Prime Scots, &c. . . . .	3 6	to 3 10	.. 4 0	to 4 4
Coarse and inferior sheep . . . . .	2 2	to 2 4	.. 2 4	to 2 6
Second quality do. . . . .	2 6	to 2 10	.. 2 8	to 3 0
Prime coarse-woolled sheep . . . . .	3 2	to 3 6	.. 3 6	to 3 10
Prime South Downs do . . . . .	3 8	to 4 0	.. 4 0	to 4 4
Lambs . . . . .	4 0	to 4 10	.. 3 8	to 4 8
Large coarse calves . . . . .	3 0	to 3 10	.. 4 0	to 4 4
Prime small do. . . . .	4 0	to 4 4	.. 4 6	to 5 0
Large hogs . . . . .	3 0	to 3 6	.. 3 6	to 3 10
Neat small porkers . . . . .	3 8	to 4 0	.. 4 0	to 4 4

SUPPLIES.

Sep. 21, 1835. Sep. 19, 1836.

Beasts . . . . .	3,463	3,200
Sheep and lambs . . . . .	29,870	28,500
Calves . . . . .	250	270
Pigs . . . . .	450	380

By the above, it appears that the prices of beef were from 2d to 6d, of mutton 2d to 4d, of veal 6d to 10d, and of pork 4d to 6d per 8 lbs. dearer; of lamb 2d to 4d per 8 lbs. cheaper, on Monday, Sept. 19, 1836, than on Monday, Sep. 21, 1835: whilst there were 263 beasts, 1,300 sheep and lambs, and 70 pigs less, 20 calves more, in the market, on the former, than the latter market day.

A full moiety of the beasts has been both in Smithfield and Islington markets this month, as well as its predecessor, composed of short-horns; the remainder, of about equal numbers of Herefords, Devons, and Welch runts, with, comparatively, but very few Scots, Norfolk home-breds, with still fewer Irish beasts, but of a considerably increased number of fat and lusty cows, steers, and heifers of various breeds.

The sheep supply this month has consisted of about equal numbers of old and new Leicesters, South Downs, Kents, and Kentish half-breds, with about the last month's number of horned and polled Norfolks, old Lincolns, horned Somersets, and horned and polled Scotch and Welch sheep, &c.

The number of lambs throughout the month has been but limited, and they are now considered to be nearly, or quite, out of season.

But little slaughtered meat has reached London this month from Scotland and the north of England. The number of live sheep and lambs from the former quarter has only amounted to 730.

A very considerable number of the beasts has not been more than half fat, especially in Smithfield. The general quality of the sheep, lambs, calves, and porkers has been, in the whole, good.

The foliage of both fruit and forest trees, shrubs, hedge rows, &c., has been during the greater part of the month assuming its autumnal complexion, and slowly quitting, with great apparent reluctance, its spring and summer quarters.

NEW MODE OF RAISING POTATOES.—In a field on Mendip, near Oakhill, is a fine crop of potatoes surpassing in quality and size any seen in that neighbourhood, the produce not of seed potatoes, but of the sprouts which the country people of Somerset call chisms. These were taken off the potatoes, before sending them to market and planted, and the result proves that the poor man need not diminish his stock of food, but may use all his potatoes and yet have abundance of seed.—*Bath Journal.*

## AGRICULTURAL INTELLIGENCE, FAIRS, &amp;c.

**WEST AUCKLAND MARKET, DURHAM.**—At the opening of this market, on Saturday, the 17th inst., under great disadvantages from the incessant heavy rain which fell nearly the whole of the day, the supply of grain was considerable, far exceeding any of the neighbouring markets, and beyond the expectation of the most sanguine, which at once stamps the situation of West Auckland as the most favourable in the district for a Saturday's corn market. The exact quantity of each description of grain could not be correctly ascertained, owing to the inclemency of the weather, and the omission of a proper arrangement, too generally the case at the commencement of any new undertaking. So far as it could be ascertained, we believe, there were between 500 and 600 bushels of old wheat, (no new) which sold from 7s 1½d to 7s 9d per bushel. 300 to 400 bushels of Oats were readily bought up by the Colliery agents and millers; new, 3s 3d per bushel; old, 3s 6d to 3s 9d. A small quantity of Chevalier Barley sold at 4s 3d per bushel. Had the weather been such as to have brought the farmers to have brought their new wheat to market, the millers (a numerous attendance from all parts) were prepared, and would have purchased very extensively.

**LEWES SHEEP FAIR.**—There were about 36,000 sheep and lambs penned, and there was a numerous attendance of buyers, especially from distant counties. The high prices demanded by the flock-masters in the early part of the day, caused the business to be extremely dull, and no great number of sales were effected; in the after part of the fair there was somewhat more briskness, when many of the sellers we understand, submitted to a diminution in price.—Upon the whole, however, considerable numbers were driven home unsold. The average prices may be quoted for ewes, 25s to 37s, and lambs 17s to 25s per head. A prime lot of sheep belonging to Messrs. Thomas and Charles Groome, of Lion's Farm, near Worthing, were greatly admired, and were sold, the ewes for 40s and the yearling ewes, at 33s per head.

**BARNSTAPLE FAIR.**—The number of cattle was greater than on any similar occasion for several years past; and those of good quality met a ready sale at remunerating prices, but the poorer sorts were at a discount. A more than ordinary proportion of the beasts driven to the fair, changed owners. There was a paucity in number of superior oxen. Fat cattle (of which the supply was also scanty) averaged from about 8s 6d to 9s per score; good three-year old steers from 12l to 12l each; dairy cows and calves at about 12l; and store cattle about 5s per score. The horse fair was abundantly supplied; of really valuable saddle-horses there were but few, but of cart-horses and colts there was a great quantity, and of good quality, whilst of common hacks and farm horses the number was almost incalculable; there appeared to be a good deal of business transacting, but we are informed the prices were very low, excepting for a few choice articles.

**WORCESTER GREAT FAIR.**—The supply of cattle was numerous, but of rather an inferior quality. The supply of sheep, in consequence of the shortness of keep, was large, being estimated at about 5,000; but taken generally they were not of a superior kind. Beef sold at 5½d to 6½d per lb; mutton 5d to 6d. The quantity of cheese pitched was small, and met a dull sale at high prices; best 65s to 76s; seconds, 45s to 55s; family, 34s to 40s.

**BRIDGNORTH FAIR** was very thickly supplied with live stock, except store sheep which were in great plenty, but with few purchasers; prime fat small sheep sold on the average at 6d per lb. Prime fat cows averaged 6d per lb; cows with calves sold well; there were but few buyers for store beasts. Good hack and wagon horses sold at high prices.

**ABINGDON FAIR** was supplied with about the customary number of horses, which went off with the usual

grumbling, both of the buyers and the sellers; the former complaining that too much money was asked, and the latter that trade was *mortal* bad. This is not much of a cow fair, but there were more cattle for sale than usual. Sheep were more abundant than ever known. The usual pens were taken a fortnight previously, and many were not brought into the town at all, from want of room. There were very few of the large dealers present, and not more than half the things were sold.

**BUXTON FAIR** was well attended and presented a show of cattle, horses, and sheep, superior to most of its predecessors. A considerable business was transacted at better prices than were asked at the last fair.

**ASHBORNE CHEESE FAIR.**—There was a very great quantity of cheese, and all sold. Prices from 55s to 65s per cwt; the average, from 60s to 63s.

**ARLECDON FAIR.**—The show was extremely meagre. There was no demand for lean stock, the usual purchasers of cattle of this description scarcely ever asking the price. Milk cows were in request, but there were very few in the fair; which altogether was a very poor one, whether with regard to the number of beasts shown, the dealers in attendance, or the business transacted.

**GREAT SALE OF CATTLE.**—On Friday se'night the Earl of Selkirk's drove of St. Faith's cattle, pursuant to advertisement, was exposed to public sale on the lands of How-well and Milton-Parks, near Kirkcudbright. As it is the largest annual sale in Galloway, a great number of highly respectable cattle dealers, graziers, farmers, and fleshers attended on the occasion, and the prices realized considerably exceeded the expectations that were previously formed. The best lot brought 17l; the second best, 16l; the lowest, 9l 9s; and the average price of the whole was 13l 6s per head. The cattle were in excellent condition; there was a very keen rivalry; and unless there is a material prospective improvement in the English markets since Barnet fair, the most experienced judges that were present at this sale are of opinion that the purchasers may think themselves fortunate if they realise the cost price, including the unavoidable expenses of driving and selling. It is worthy of remark that none of the fleshers were buyers, believing that they could not have been so with any reasonable prospect of advantage.

At Mr. John Ellman's annual sale of ewes, and letting and sale of rams, which took place at Glynede, on Tuesday last, there was a numerous and highly respectable attendance of buyers, and we understand that the average price at which the ewes were sold, may be quoted at 46s per head. For the premium (a silver tankard) offered by Mr. Ellman, for the best Ram Lamb there were eight lambs exhibited, and it appeared quite certain that the competition was between those shown by his Grace the Duke of Richmond, and Mr. John Putland, of Firlie. After a very long discussion between the Judges, on the merits of the two lambs, the prize was eventually awarded to his Grace.

At the Sheep Fair on Woodbury Hill, the sale was dull, in consequence of a scarcity of feed. A small proportion only of first-rate ewes was penned. Down ewes fetched from 19s to 27s; Lambs from 14s to 21s. Good fleshy wethers were in request, and sold tolerably well, maintaining the late prices; but it was altogether a dull trade. The wool business was flat, and prices showed rather a tendency to decline, owing to the great influx of foreign wool, the importation of the present year up to this time having exceeded that up to the same period last year by about 12,000,000 lbs. The average price at the fair was about 5 per cent. less than that at the Dorchester August Fair, the reduction being from 20d to 19d per lb. Many horses were offered for sale, chiefly of the cart kind, and very few found purchasers.

A new Sheep and Pig Fair has been established at

KINGTON, Herefordshire, held the day preceding the usual cattle fair. This alteration is considered as a great improvement, as considerable inconvenience was experienced from having all the fairs held on one day. The new fair was held for the first time on Saturday, Sept. 17. There were upwards of 3,000 sheep penned, consisting of Leicesters, Southdowns, and a large proportion of hill sheep. Good fat wethers averaged from 5½ to 6d per lb. Ewes for store, from the scarcity of keep, met with a dull sale. Other descriptions were disposed of at rather reduced prices. The depression may be accounted for owing to the unprecedented quantity of stock, and to there being but few dealers in attendance, who probably were not aware of the alteration which has taken place, or were deterred from attending in consequence of Sunday intervening. On Monday the cattle fair was held. There was a large supply of cattle, consisting chiefly of the Herefordshire breed, but the prices they fetched were lower than was expected.

**BACKWELL FAIR.**—There were but few fat beasts to be seen; the best steer and heifer beef fetched from 48s to 50s per cwt. There were a great many sucking colts, some of the best of which sold at prices varying from 8l to 11l each.

**THE MENZION SHOW AND SALE.**—The Menzion Show and Sale of Cheviot Tups belonging to Messrs. Aitchison, the celebrated breeders of that kind of stock, took place at Menzion in Tweedsmuir, on the 8th of September, when a splendid lot of 130 of their famed sheep were exhibited, a part of which were generally admitted by good judges to be of the first-rate description; indeed it was affirmed that several of the tups could not be surpassed by any, in either the South of Scotland or North of England. This will be pretty well proved by the prices given for them. There was a very respectable and numerous attendance, and the public sale went off in the most spirited manner. One-year-old sheep sold at from 2l 10s to 3l 17s, two-year olds, 3l 3s to 4l 14s, and some even higher. A considerable number of the three-year olds brought from 7l to 9l 15s, while four-year-olds went as high as 13l 10s, and second tup lambs fetched 4½s. After the sale, Messrs. Aitchison entertained a party of seventy gentlemen to a substantial dinner, and the afternoon was spent with the utmost conviviality.

The supply of sheep at Wherwell Fair far exceeded the demand, notwithstanding there was a numerous attendance of dealers. The few sales effected were at a reduction of 2s per head on the prices of Wilton Fair. The number of sheep penned exceeded those of the last ten years.

**SALE OF CHOICE STOCK.**—On Wednesday week, the park and grounds adjoining to Harley Hall, near Northallerton, the seat of John Charles Maynard, Esq. were thronged with gentlemen breeders and graziers, from most parts of England, Wales, &c. and also some foreigners, to witness the sale of prime stock belonging to that gentleman. The buyers were numerous and bid with great spirit. The result of that day's sale was, 24 cows sold for 1,099 guineas; 15 two-year old heifers, 577 gs.; 9 one-year do., 275 gs.; 6 heifer calves, 136 gs.; 5 bulls, 320 gs.; 8 bull calves, 403 gs.

**READING MICHAELMAS CHEESE FAIR** was very well attended, and nearly 700 tons of cheese were pitched in the Forbury, which owing to the smallness of the made in generality of the dairies this season, was considered a large quantity. Great doubts were at first entertained as to there being so much and we believe we can assert from authority, that there was about 100 tons less pitched this year than on the previous one. The value of the cheese alone, therefore, computing it at an average of 70l per ton, and supposing there to be only 600 tons, would amount to 42,000l. Best thick cheese from 60s to 70s; a few of the best dairies realized 72s; best North Wilts or loaf cheese from 75s to 80s; best thin from 60s to 65s. The sale being brisk, the prices on the whole were 2s per cwt higher on the second day than on the first, and nearly all the good cheese appeared to be cleared off before the conclusion of the fair.—The Cattle Market, for horses and horned cattle was considerable, but inferior

in quality, and met with a very dull sale. Several good horses were, however, disposed of at the "Shew" on the Tuesday. There was one fine drove of Herefordshire oxen which was disposed of at an early hour.

**EGREMONT CRAB FAIR.**—The show of cattle was limited, and the number of buyers also small. Good animals brought high prices, but very few sales were effected.

**NORTHAMPTON CHEESE FAIR** was rather thinly supplied with cheese—a consequence of the want of grass. What was brought was cleared off more rapidly than in any year within our remembrance. Some prime dairies fetched 72s. This fair is also celebrated for store ewes, of which there was a more than usual number: the greater part were sold, but from the want of grass, at low prices. There was a very large show of very fine tups, and considering the times the tuppeters had no great reason to find fault with the prices at which they were let. A large number of ordinary store cattle, of which a good number were sold, but the sellers complained heavily of the price. There was a great deal of cow beef, which bore evident testimony to the shortness of grass, so that the trade was very dull. Of mutton a great quantity, and the prices were the same as they have been of late.

The following has been recommended as a cheap and effectual expedient to prevent rats and mice from getting into corn ricks:—The rick should be built nearly perpendicular, and cut round about two feet high from the ground, slanting from the top towards the bottom about eighteen inches. The part that is cut is plastered over with mortar made of clay, or any other substance that will stick to the ends of the straw, leaving a rim at the top, of about two inches. The whole is then white washed. This plan is adopted by many farmers in Norfolk, and those who practice it, never have their corn injured by rats or mice.—*York Herald.*

**PRODIGIOUS CROP OF CHEVALIER BARLEY.**—Our readers are already well aware of the highly productive nature of this sort of barley, but we believe few, if any of them, could have anticipated such an extraordinary return as that which we are about to record, and which has just taken place in this immediate neighbourhood. On the 21st of March last, a small field, consisting of about three acres and a half, on the estate of Roselle, was sown with only five bushels of seed, which is understood to be much less than the supply calculated to insure a full crop, but the reason for giving such a small quantity was to secure a full crop of grass after the barley. This choice field is now nearly all ripe—the half of it was cut down yesterday (five months and fifteen days after being sown,) and is of excellent quality. A quantity of it has been left at this office, where any person may see it, and it will afterwards be placed in the agricultural and horticultural museum now forming. From one pickle of seed rises twenty-one straws, and from another the extraordinary number of thirty-five! We find the number of pickles on each head to be about twenty-eight or thirty—which gives the large return of nearly sixteen hundred pickles from the parent stem. Some of the heads from the under part to the top of the awns measure ten inches in length; the average length of the straw over the whole field is four feet and nine inches; and it is computed that the return of the grain will be at the rate of seven and a half or eight bolls per acre. But of this we will speak when the exact quantity has been ascertained by measurement.—Should the Chevalier turn out as well on all the breadths on which it is sown in this and other counties, the farmers may well join with Burns in boasting that—

"We'll mak' our maut, we'll brew our drink,  
We'll dance, we'll sing, and rejoice man," &c.

We may add, that this extraordinary crop was sown after potatoes, mangel wurzel, and carrot.—*Ayr Observer.*

WEEKLY ESTIMATE OF THE HOP DUTY,

COMMENCING 4th MAY, 1832.

From May 4th to Sept. 24th.	1802.	1803.	1804.	1805.	1806.	1807.	1808.	1809.	1810.	1811.	1812.	1813.	1814.	1815.	1816.	1817.	1818.	1819.	1820.	1821.	1822.	1823.	1824.	1825.	1826.	1827.	1828.	1829.	1830.	1831.	1832.	1833.	1834.	1835.	1836.
Total Duty Paid as per Official Returns.	15,463 10 5½	199,205 1 10½	177,617 9 9	32,904 12 7½	153,102 15 2	100,071 15 2	251,089 15 7	63,452 18 2	73,514 6 11½	157,065 19 2½	30,561 19 3½	131,481 9 2	140,292 6 1½	123,878 16 3½	46,302 5 9½	66,522 2 5½	199,465 13 6	242,076 2 2	138,330 9 6½	154,609 10 8½	203,724 14 9½	26,057 11 9½	148,832 0 0½	24,307 0 11½	269,331 0 9½	140,848 6 2½	172,027 10 11½	38,398 10 7½	88,047 8 1½	174,864 10 1½	139,018 4 3½	156,905 7 0	189,713 14 2½	235,207 2 11½	
Sept.	14	10	18	27	17	8	30	58	84	150	29	132	141	123	50	80	190	230	138	185	206	30	60	22	265	140	175	34	95	165	130	150	175	250	
Aug.	17	17	18	28	17	8	24	59	94	150	42	130	145	135	60	90	145	230	85	190	200	23	165	27	255	120	185	37	105	180	142	155	158	245	
July	22	17	18	25	16	8	23	60	85	150	40	135	142	135	95	82	150	220	80	150	180	23	160	26	245	120	195	30	93	175	145	185	150	225	
June	30	14	10	20	14	6	19	50	82	130	85	143	145	135	120	98	145	225	75	155	155	30	150	22	205	105	180	38	125	140	165	177	105	230	190
May	4	10	10	16	10	6	15	50	82	130	85	140	147	135	100	96	140	210	75	150	150	30	150	20	180	110	180	36	140	140	150	185	90	192	235
April	10	12	15	24	15	9	20	55	88	150	45	150	155	140	100	100	140	210	75	150	150	30	150	20	180	110	180	38	100	140	150	185	90	192	235
March	10	12	15	24	15	9	20	55	88	150	45	150	155	140	100	100	140	210	75	150	150	30	150	20	180	110	180	38	100	140	150	185	90	192	235
February	10	12	15	24	15	9	20	55	88	150	45	150	155	140	100	100	140	210	75	150	150	30	150	20	180	110	180	38	100	140	150	185	90	192	235
January	10	12	15	24	15	9	20	55	88	150	45	150	155	140	100	100	140	210	75	150	150	30	150	20	180	110	180	38	100	140	150	185	90	192	235

## REVIEW OF THE CORN TRADE

DURING THE MONTH OF SEPTEMBER.

The fine weather which favoured agricultural proceedings during August, has the past month been succeeded by rain and cold, and the temperature morning and evening approaching the freezing point; indeed one or two nights, thin coatings of ice were even formed on stagnant waters. Though the bulk of the wheat crop had been secured in those counties principally dedicated to its cultivation, before the atmospherical change took place, yet in the more northern counties of England, as well as throughout Scotland and Ireland, the harvest has been materially impeded, and the result rendered more precarious at this advanced period of the season. About the middle of the month however, dry warm weather again appeared in Ireland, and Scotland, and the north of England, and the farmers exerting themselves to the utmost during the sunshine, were enabled to make rapid progress in housing their corn. Towards the close the weather became again unsettled, and though the quantity of wheat now outstanding is not to any material extent, yet the bulk of the barley and oats, are still subjected to all the vicissitudes of our climate. Many complaints have been made at the markets in different parts of the kingdom, that the farmers have not only been induced prematurely to cut their wheat, but have not allowed it to arrive at maturity in the sheaf, having carted it immediately, fearful of trusting the weather, and many samples therefore are coarse, tender and ill-conditioned, and the quality it is to be feared in instances irredeemably deteriorated, by so hasty and injudicious a proceeding. Accounts seem to concur in representing the yield for the bulk of straw, superior to last year, the ears being generally thickly set and well filled; but the growth is less, and the plant much thinner on the ground; and though the aggregate yield may approach a low average of former years, previous to the three last seasons, yet as compared with the produce of 1833-34-35 it is decidedly deficient, with a much greater prevalence to smut, roughness in the sample, and thickness in the skin. With the exception of Suffolk, where the farmers have been more fortunate than their neighbours in securing the barley, the bulk of this grain has had to endure all the changes of the weather, experienced during the past month, and the sample therefore is deteriorated in quality, and in many instances, being coarse, stained, and sprouted; and a greater disparity will exist in the quality than has been witnessed for several seasons. The growth is estimated at an average, and an extended breadth cultivated.

In Scotland the general backwardness of the season, and the check agricultural proceedings have sustained from the weather, has rendered

the result of the harvest extremely doubtful, especially in the more northern districts, where the grain has in places not yet ripened. Wheat is below an average produce, and inferior in quality, and the breadth of land sown much less than last season, though the stock of old wheat remaining on hand is still large. Barley is the best grain crop of the season, and an average in quantity and quality. Oats vary according to situation, and time of sowing, but on the whole are likely to turn out a moderate average.

In Ireland, the grains of most of the new samples of wheat, have been well filled and plump, but owing to the very continued rains, are soft and out of condition, and the crop generally will require kiln-drying. The produce will be below an average even for the quantity of land sown, which is considerably diminished from last year; though the consumption of the article is rapidly on the increase throughout the kingdom; yet on the other hand, many merchants, as well as farmers, are holders of old wheat, and are only wanting an advance in price to induce them to quit their stocks. Barley, the cultivation of which has been much extended, will, with the exception of the late sown, prove pretty equal, both in point of quality and quantity to the average of past years. The extent of ground sown with oats is equal, if not greater than former years, but the produce varies much in different districts; the early sown oats on dry and stiff soils had suffered much from the severe drought in May and June, and consequently will not yield a large produce. In the inland and hilly districts where sowing has not commenced so early, the crop in general is luxuriant, but much is still green, and at this late period the harvest must be hazardous. Potatoes in many places have partially failed, but not to such an extent as materially to affect the aggregate crop of the country.

The clemency of the weather at such a critical period of the season, had a material effect on the minds of the holders of old wheat, and at all the leading markets, prices advanced during the early part of September 4s to 5s per pr, and fine dry new samples 2s to 3s; as however, the weather improved, and the reports from the north of England, Ireland, and Scotland, came more favourable, millers bought but sparingly, and farmers and factors were obliged to submit to lower rates, leaving the currencies at the close of the month 1s to 2s higher, than at the termination of August.

The unfavourable accounts previously received from the United States of America, as to the failure of the wheat crop having been corroborated, and the high prices of wheat in the more southern departments of France, owing to the failure of the

crops, has caused bonded wheat to continue in request, and holders have demanded rather higher rates, but the extent of business has not at all been commensurate to the orders transmitted from America, or the shipments made from England; as, in the first place, the orders have been generally only received here in transit, having been forwarded to the Baltic, Elbe, &c., for shipment, and in the other, most of the exports have been made on owners' account. About 6,000 qrs have been reported for export to New York; 3,900 qrs to Boston, and a few hundred qrs to Baltimore, besides some shipments to New South Wales, Madeira, and the Mauritius. Danzig wheat has obtained 34s to 36s; Lower Baltic red, 30s to 32s. Archangel and Peterburg, 20s to 25s; and for fine 26s has been refused.

The prices of town-made flour have not participated in the fluctuations of wheat, but ships' qualities have advanced fully 2s per sack; but towards the close of the month, again receded 6d to 1s. Bonded flour has been much in request for shipment to the West Indies, Mauritius, &c., as the failure in the crops of wheat in the United States has rendered those ports which have been accustomed to be supplied with flour from America, dependent on the European markets for part of their future supplies; all the fresh arrivals of flour from Hamburg and the Baltic have found ready purchasers at improving rates, Danzig and Hamburg qualities bring worth 23s to 24s per barrel; and several thousand cwts have been shipped from London during the past month.

The alteration in the duties consist of an advance of 1s per qr on wheat; 3s on rye; and 5s 9d on peas; while on beans the duty has declined 1s 6d per qr.

The receipts of barley have been limited, and in the early part of the month, the demand being confined to grinding and distilling qualities, prices sustained no alteration. On the appearance of a few new malting samples, more animation pervaded the trade, but great disparity being found in the quality, Maltsters only selected the best descriptions at 37s to 38s. As the parcels offering improved, and the accounts were more unfavourable for the outstanding crops, fine Chevalier advanced in value, and 40s to 42s and 44s was realised; an extra prime parcel being reported to have fetched 45s and even 46s; but towards the end of September, the new samples increased in quantity, and though several continued to come to hand, coarse and discoloured, yet many of the Suffolk parcels were fine, prices in consequence receded 1s to 2s per qr for fine descriptions, and 2s to 3s for secondary and inferior malting, and 1s to 2s for distilling and grinding sorts. Old foreign barley in bond has obtained 20s per qr.

Fine tender old malt has met an animated demand owing to the inferior quality of the new barley for malting; and prices have advanced 5s

to 6s per qr; the currencies remaining firm at this improvement.

The supply of oats has been rather liberal for the season of the year, though less than the previous month, both from England and Ireland; but larger from Scotland. The demand at the beginning of the month was languid, and prices receded 6d to 1s per qr; but the protracted state of the harvest in Ireland and Scotland communicated more firmness to the trade; and as the arrivals were not large, a gradual advance has taken place on the article, English qualities being 1s 6d to 2s 6d per qr dearer than at the close of August; Scotch and Irish, 2s to 3s per qr; good Irish white 40 lbs oats being worth 25s to 26s, and fine Scotch potatoe noted at 30s to 31s, and even 32s. A great many new Limerick oats have been sold at 11s 3d to 11s 6d per barrel, for delivery free on board, in October, November, and December; and the general contract price, free on board, in Ireland, has been 11s 3d, 11s 6d, to 11s 9d per barrel. A few foreign oats have weekly paid the prevailing duty of 18s 10d per qr, and several small shipments of the bonded article have been made to the West Indies and the Mauritius, &c. Russian oats, free, are worth 24s, and good fresh foreign feed, 25s to 26s, and in bond, 14s to 15s.

Old beans as well as peas of all descriptions have sustained a material improvement in value, the former article having advanced fully 4s per qr, and white peas 6s to 7s, grey and maple 5s; the trade for both beans and peas ruling firm at the advance. New beans come to hand spotted and out of condition, and have not participated in the advance of old, unless extremely dry.

During the month of September the following quantities of Grain and Flour have arrived in the Port of London.

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats. qrs.
English .....	42,024	1,782	26,192	16,327
Scotch .....	193	2,069	308	16,960
Irish .....	...	840	270	37,779
Total in Sept.	42,217	4,691	26,770	71,066
Total in August	35,168	9,157	17,498	59,104
Total in July.	22,637	6,846	16,753	66,169
Foreign in Sep.	14,093	4,269	...	4,302
Beans.	qrs.	Peas.	qrs.	Flour.
English .....	3,720	4,324	17	sacks.
Scotch .....	4	8	...	123
Irish .....	...	...	...	...
Total in Sept.	3,724	4,332	17	32,170
Total in August	2,612	2,294	...	27,473
Total in July.	2,681	427	...	28,236
Foreign in Sep.	1,674	809	23,094	brs. 1,595

At Montreal prices of wheat remain steady at 5s 7½d to 5s 9d per 60lbs for Upper Canada quality, and as the report of the crops of wheat in Lower Canada are far from favourable, prices are not expected to recede; it appears the ears of wheat have been much injured by the fly, as well as the drought experienced during the spring, which has also checked the growth of summer grain. At Quebec the agricultural report commences, by stating, that for the last sixteen seasons the writer had never en-

tained such unfavourable forebodings as at present; these remarks however, more especially apply towards summer grain, wheat being the best of the grain crops, and on all low lands will be probably an average return. Flour was firm at 30s to 31s 6d, and superfine was enquired after at 32s to 32s 6d, and several purchases of fine appeared for forward delivery, 30s being refused for delivery on the 1st of October. Much of the flour from Upper Canada arrives out of condition; the accounts however, from Upper Canada are of a more favourable tendency; from Kingston the statement is made, that in that district, the wheat crop is generally very good, and "on the whole never better"; the other crops are represented as moderate, except Indian Corn, which is a general failure. From St. John, New Brunswick, we learn that the prospects of the farmers had much improved, and good average crops were anticipated. From St. Andrews it is reported vegetation was making rapid progress, and the crops had assumed a promising appearance.

At Hobart Town, Van Diemen's Land, prices had rather given way, owing to the reported large shipments which were being made to Sydney from Launceston, the Indies, England, &c., and wheat was noted at 6s 6d to 8s 6d per bushel. At Launceston the same causes had operated on the currencies, but the last advices from Sydney bringing the quotations still at 11s to 12s 6d, holders were enabled to realize 9s to 10s per bushel.

At Sydney, New South Wales, prices were noted at 9s to 12s 6d. A sale of about 1,000 qrs of wheat received from the East Indies, had been made, but as the quality was inferior, and not weighing, on an average, more than 56lbs per bushel, the prices realized were comparatively much lower, not exceeding 5s 10d to 7s per bushel. Indian corn maintained high rates, selling at 7s to 8s 6d per bushel.

The wheat harvest in France, may now be considered as terminated, but as thrashing has not yet become general, a decided opinion cannot be formed as to the actual deficiency of the crop; that it is inferior to the produce of the last season, not a doubt exists, and particularly in the more southern departments; the previous harvest was, however, superabundant, and the yield in many districts is expected to be one-fourth to one-third less, with an inferiority of quality; in some parts it is almost equal to the last season's growth, and in a few the farmer calculated of obtaining from the straw fully as much grain as he thrashed out in 1835, which will perhaps make an aggregate quantity, barely equivalent to a low average yield. Smut prevails to some extent, and even where liming the seed has been had recourse to. The barley harvest is fast drawing to a conclusion, and appears on the whole, to be deteriorated in quantity and quality by the continuance of the drought; oats from the same cause are also a deficient produce, and in Normandy and Picardy are also much endangered at present by being exposed to the rain.

Prices are firm, with a tendency to advance, particularly for the finer descriptions of new wheat, as the excellent condition of the grain renders it almost immediately fit for the millers' purposes, and the general quality of the old wheat remaining on hand is inferior, and much of it out of condition. The crop of wheat in the circle round Paris, from whence the metropolis draws the bulk of its supply, appears to have been more favoured than most other districts, and therefore the city will possess the greatest facility of being well provided with the staple commodity of life. At Bordeaux, Marseille, and neighbouring markets, prices of wheat are ranging

high, owing to the deficiency of the crops, and several parcels of foreign corn have been already received, which have been made free at Cherbourg, Brest, or other ports in that class; and the unequal operation of the French Corn Laws has given considerable dissatisfaction to the agriculturists, who seem determined to petition government either for the equitable administration of the existing code, by not allowing the cargo of wheat which has paid duty at any certain port to be re-exported, or the law in this particular to be repealed.

The crops in several of the Italian States turn out less productive than was expected; some below an average, and in others where superabundance was calculated upon, the yield on thrashing is little more than a full average; these facts are operating on the currencies, combined with the reports of the falling off in the produce in the South of France; in addition to which the accounts from Naples, received from Genoa, state that in Piedmont and Lombardy the crops had proved deficient; Barletta wheat in consequence was not to be shipped under 28s to 30s, and at Ancona the inequality of the harvest in many parts of Italy, and a demand having been experienced from Venice, had caused prices to range at 26s 6d per qr.

At St. Petersburg sales of Linseed deliverable in loco, and of the best quality, had been made at 44s per qr; inferior, for future delivery, 37s 6d. At Riga, small parcels of Wheat were finding occasional purchasers, at 27s 3d to 30s 6d. Barley, of about 48lbs, at 17s, and Oats, at 11s 10d to 12s 4d. Rye was realising 20s 6d; Crushing Linseed, of middling quality, was to be had at 40s 10d per qr; and Hempseed at 26s 5d, but the stocks of both reduced to a few thousand barrels; the crop of Sowing Linseed promised an abundant return, but as the harvest will be late, both quantity and quality will be likely rendered more liable to injury from the weather; if well secured, prices are expected to range moderately low, say equal to 46s 6d per qr.

At Konigsberg the trade was firm, in consequence of the advance in the London currencies, and though few additional orders had been received, yet those transmitted to Danzig for American account, and the different vessels which had been chartered at Copenhagen with a freight of 10s per quarter to New York, had communicated a fresh impetus to speculators, and if purchases had to be made, it was expected an advance of 10 to 15 florins per last would be demanded. New wheat was of fair quality, and average in quantity.

At Danzig the demand for wheat had rather improved, and those holders willing to quit, readily found speculative purchasers at the current rates, prices of fine mixed qualities varying from 25s to 26s 9d, according to colour and weight. About 1,000 qrs of Rye had been bought for shipment to America at 14s 6d per qr. High mixed was noted at 27s to 30s. White wheat, 30s to 35s. Flour of first quality, 19s, but none offering.

At the Mecklenberg ports purchases were being made for shipment to America, and the finer wheats were held at 27s to 28s per qr. The wheat crop is estimated below an average produce, and Barley will be only a moderate crop. At Rostock the farmers report the quality of the wheat as very fine, though the few samples which had appeared at market did not fully bear out their statements.

At Hamburg several parcels of wheat had been purchased for America, and prices were firm. Some new Marks had been received, and the quality and condition better than anticipated, and realised 30s to 30s 6d for the consumption. Rapeseed was dull at



31l to 31l 5s, and upwards of 10,000 qrs offering. At Rotterdam the wheat trade had been rendered very animated, owing to extensive orders for shipment to America; white Zealand wheat was selling at 29s 6d to 32s, weighing 60 to 61 lbs; red Rhine of 62 to 63 lbs, at 30s to 31s per qr, in bond. As the shipments of barley from the Baltic, as well as Riga had been limited, and the consumption of the distillery considerable, prices were expected to range high during the winter. The stock of Rape Oil having proved larger than calculated upon, Rapeseed, instead of advancing, had rather receded in value, and was selling at 34l to 35l per last. New Linseed was held at 54s to 56s. White cloverseed was good in quality, and sold at 40s to 45s. The red seed crop was favorably reported.

The advices from the United States of America continue to preserve an unfavorable tendency as regards the failure in the wheat crop, with the exception of the district of Illinois, Michigan, and greatest part of Ohio. At New York, new North Carolina wheat had arrived, the quality fair, and which realised 59s 7d, though it had been previously stated that 2 dollars, or about 73s 4d had been refused; one or two parcels of foreign had been sold at 60s 6d, and the market quite bare. Rye was in request at higher prices, foreign obtaining 36s 8d and 41s 3d. Flour had improved, and Western Canal was worth 36s; part of the crops in Ohio are represented as likely to yield one-third to one-fourth less than last season. From Niagara the accounts state that Wheat has proved short of a middling average. At Baltimore, the crops are stated not merely as being short of an average, but an actual failure, and where the expectations of the agriculturist had induced him to hope a favourable return for his labour, he has not reaped more than one-third or one-fourth of his anticipated produce, in addition to which the quality is represented as being much inferior to an average of former years, which is exemplified in prices varying from 45s 10d to 64s 6d per qr. New Rye was selling at 36s 8d to 41s 3d. New Oats were obtaining 11s 8d to 12s 10d, the crop of the latter article being generally favourably reported. Howard-Street Flour was selling at 36s to 37s 1d, and City Mills and Susquehanna qualities were realising as high as the latter price. At Philadelphia, the failure in the crop in various sections, are referred to as exceeding the previously formed anticipations, which it must be remarked, depend so mainly on the bias of the individual who has formed them, that little is to be elicited from the statement. Wheat, bonded, was worth 58s to 67s. Flour was obtaining 36s per barrel. Rye had proved very deficient, and would not, it was feared, in districts, pay for thrashing, and was noted at 40s 4d to 41s 10d per qr. From Petersburg, Alexandria, Cincinnati, &c., the reports of the crops partially varied, but, on the whole, were little less unfavourable.

**CURRENCY PER IMPERIAL MEASURE.**

	BRITISH.		SEPT. 1.		OCT. 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk.....	42	48	42	48	42	50
White.....	46	53	46	57	46	57
Norfolk, Lincolnshire and Yorkshire.....	40	47	40	50	40	50
White, do. do.....	49	50	40	54	40	54
West Country Red.....	38	46	38	48	38	48
White, ditto.....	40	52	40	51	40	51
Northumberland and Berwickshire Red.....	38	44	42	47	38	47
White, ditto.....	39	48	38	50	38	50
Irish Red.....	—	—	—	—	—	—
Ditto White.....	—	—	—	—	—	—
Barley, Malting, new.....	—	—	36	40	36	40
Chevalier, new.....	—	—	38	43	38	43
Distilling.....	32	35	32	36	32	36
Grinding.....	28	32	28	34	28	34
Irish.....	25	30	25	30	25	30

	SEPT. 1.		OCT. 1.	
	s.	s.	s.	s.
Malt, Brown.....	44	52	48	58
Ditto, Chevalier.....	60	61	64	70
Ditto, Norfolk and Suffolk Pale.....	50	60	56	68
Ditto Ware.....	60	64	64	70
Peas, Hlog and Grey.....	31	33	34	38
Maple.....	32	35	34	38
White Boilers.....	34	35	36	42
Beans, small.....	38	40	40	44
Harrow.....	36	38	38	42
Ticks.....	34	36	34	40
Mazangon.....	32	36	34	38
Oats, English feed.....	23	25	25	28
Short small.....	25	27	28	30
Poland.....	24	28	25	29
Scotch, Common.....	24	26	26	28
Berwick, &c.....	24	27	26	30
Potatoes, &c.....	25	28	28	31
Irish, Feed.....	21s 0d	22s 0d	22s 0d	24s 0d
Ditto Potatoes.....	22s 0d	24s 6d	24s 0d	27s 0d
Ditto Black.....	22s 0d	23s 0d	22s 0d	24s 0d

**PRICES OF FLOUR,**  
Per Sack of 280 lbs.

	SEPT. 1.		OCT. 1.	
	s.	s.	s.	s.
Town-made.....	40	48	46	48
Norfolk, Suffolk, Kent, and Essex.....	34	36	34	36
Sussex and Hampshire.....	33	34	33	34
Superfine.....	35	—	35	—
Lincolnshire, Yorkshire, and Stockton.....	32	34	32	34
Northumberland, Berwick, and Scotch.....	32	33	32	33
Irish.....	33	35	33	35
Extra.....	37	—	37	—

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th Sept., 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat.	Barley.	Oats.	Rye.
	qrs.	qrs.	qrs.	qrs.
Quantity imported.....	*34,535	12,965	30,502	3,477
Do. entered for home consumption.....	1,863	10,312	7,354	12
Do. remaining in warehouse.....	594,460	34,953	244,014	4,501
	Peas.	Beans.	Maize.	Flour.
	qrs.	qrs.	qrs.	cwts.
Quantity imported.....	9,576	12,060	..	*37,313
Do. entered for consumption.....	21,405	10,710	..	3,789
Do. remaining in warehouse.....	2,103	61,218	20	193,996

\* Of which 4,263 qrs and 6,717 cwts are the produce of British Possessions out of Europe.

**STOCK OF GRAIN, FLOUR AND CLOVER-SEED IN BOND IN THE PORT OF LONDON ON THE 5TH SEPTEMBER.**

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Cloversd.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
239,182	8,405	74,372	7,908	53	36,729	30,756
Rye, — qrs						

**IMPERIAL AVERAGES.**

Week ending	Wheat.	Barley	Oats	Rye	Beans	Peas.
	4	3	3	3	4	3
12th Aug.	50	4	32	3	23	11
19th "	48	10	32	6	23	11
26th "	46	11	30	11	23	12
2nd Sept.	48	1	31	11	23	12
9th "	47	9	34	0	23	12
16th "	47	10	34	8	23	12
Aggregate Average of the six weeks which regulates the duty.....	48	4	32	9	23	12
Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London.....	38	8	13	10	12	3
Do. on grain from British possessions out of Europe.....	5	0	2	6	3	0
Foreign Flour, 22s 8d per 196lbs. British Possessions do. 3s per 190 lbs.						

**WOOL MARKETS.**  
**BRITISH.**

*No alteration in the currencies since our last.*

**WAKEFIELD WOOL MARKET, Sept. 23.**—There is no quotable difference in the value of either long or short wool this week, but the quantity of business done is rather below an average, and there is an absence of that briskness which characterised the wool trade a few weeks back. Probably the feverish state of the money market occasions consumers to act more cautiously, as we yet hear of no one reducing his consumption.

**CHELMSFORD WOOL FAIR.**—At a meeting of the Committee of the Chelmsford Agricultural Society, on Friday, on reading the several certificates delivered by the wool buyers of the 21st of June, it was unanimously resolved,—“That Messrs. William and Thomas Johns were duly entitled to the Cup given at the Wool Fair, they having purchased 196 packs, 1 dft 71 lb.” The return made by Messrs. Legg, was 135 packs, 0 qrs 39 lbs. From the best information the Committee could obtain, the amount sold on the same day was at least 9,000*l*. This quantity, we understand, was absolutely sold on the day of the Fair, exclusive of all sales made previously and subsequently.

**LIVERPOOL.**

**WEEK ENDING SEPTEMBER 26.**

**ENGLISH WOOLS.**—Prices here are nominal in price, and partake of the general depression of the market. Combing fleeces, 20d to 21d; Down ewes and wethers, 20d to 21d; ditto tegs, 22½d to 24d; super. skin, 19d to 20d; head ditto, 17d to 18d.

**SCOTCH WOOL.**—We have a large attendance of buyers at the sale of Foreign and Colonial Wools this week, but have not heard of many operations in Scotch Wool. A few transactions in Cheviot and Laid Highland at old rates are all that have come to our knowledge. The recent large purchases by consumers, joined to the present state of the money market, will we expect produce quietude in this market for a few weeks. We do not anticipate any ultimate decline in price.

	per stone of 24 lbs.			
Laid Highland Wool, from 12s 6d to 13s 6d	12s 6d	13s 6d		
White do. do. ....	16s 0d	17s 0d		
Laid Crossed do. ....	17s 0d	18s 0d		
Washed do. do. ....	18s 0d	19s 0d		
Laid Cheviot do. ....	20s 0d	22s 0d		
Washed do. do. ....	26s 0d	28s 0d		
White do. do. ....	32s 0d	36s 0d		
Import for the week .....	1262 bags.			
Previously this year .....	13937 do.			

**IRISH WOOL** has been in limited request. To make sales some reduction has in every instance been submitted to. The imports for the week amount to 68 bags. Irish fleeces, mixed lots, per lb. 17½d to 18½d; ditto wethers, 17d to 17½d; ditto hogs, 19d to 20d; ditto combing skin, 16d to 17d; ditto short skin, 14½d to 16½d. Import for the week, 67 bags; previously this year, 4,865.

**FOREIGN WOOLS.**—Several large lots of Australian and other wools were brought to the hammer to-day and yesterday, pursuant to advertisement. The attendance of country dealers yesterday was very large, although to-day it was much decreased. About 1,700 bags were sold yesterday, at the average prices of the last London sale, but from 2d to 3d per lb. below the prices obtained here by auction last month. In consequence of this change several holders withdrew their lots, and others would have followed the example if they had not previously advertised. Odessa, fine, 2s to 3s 6d; Portugal R., 1s 6d to 1s 7d, ditto, low marks, 1s 0½d to 1s 2½d; Spanish R, 2s 6d to 2s 9d; F S, 2s 2d to 2s 4d; German fleeces, 2s 2d to 2s 6d; assorted, 2s 6d to 2s 9d; lambs, 2s 6d to 3s 6d; New South Wales, 2s 4d to 3s; Russian wool, 8½d to 9½d; Buenos Ayres, 4d to 5½d; Mogadore and Barbary, 4½d to 6d;

washed Peruvian, 14d to 16d. Import for the week, 1,328 bags; previously this year, 32,027 bags.

**SCOTCH.**

Per Stone of 24 lbs.	SEPTEMBER 1.		OCTOBER 1.	
	s. d.	s. d.	s. d.	s. d.
Laid Highland Wool, from. 12 6 to 13 0	12 6	13 0	12 6	13 6
White Do. Do. ....	16 0	16 6	16 0	17 0
Laid Crossed Do. ....	17 0	18 0	17 0	18 0
Washed Do. Do. ....	18 0	19 0	18 0	19 0
Laid Cheviots. ....	20 0	22 0	20 0	22 0
Washed Do. ....	26 0	28 0	26 0	28 0
White Do. ....	32 0	36 0	32 0	36 0

**FOREIGN.**

SEPT. 26.

About 1,250 packages of German, Russian, Italian, and Turkish wools have formed the London supply, since this day's night. No public sales are appointed; and private contract trade is steady, at our last quoted prices.

**BONES.**

Since our last there have passed the SOUND or ELSINORE, the GREAT BELT, and the HOLSTEIN CANAL, ships loaded with Bones, bound for Hull, 3; Berwick, 3; Macduff, 1; Leith, 1; Arbroath, 1; St. Andrew, 1; other parts of England, 4.

**REVIEW OF THE HOP TRADE.**

SEPTEMBER 25.

About the middle of this month the new Hops began to reach the market: the first lots proved very inferior, it being the invariable practice, with the growers, to pick the mouldy and diseased Hops as early as they can; these have mostly been sold at low prices. Up to the present time we have received about 11,000 Pockets, some of good quality, but generally speaking low in colour, though quite equal to what could have been expected for the unfavourable season, the wind and constant wet having seriously injured the growth; and to this we have to add a great increase of blight—the fly and lice are found in great quantities in the body of the Hop, feeding on and impoverishing the article. The Hopping is fast drawing to a close, in fact many have already finished: the pickers have got over the ground rapidly, occasioned by the Hops coming so far short of the expectation when they commenced. The estimated Duty still falling, it is now quoted at 175*m*. on the market, but in the different districts at 160*m*.; prices vary much according to quality: the article is in great demand for consumption as well as speculation, many believing the growth will prove deficient of the quantity required for consumption even when you add the overplus produced last season:—

**PRESENT PRICES.**

	£.	s.	£.	s.
Farnhams in Pockets, from	8	8	10	10
East Kent Pockets .....	5	12	—	8
Bags .....	5	5	—	7
Mid Kent Pockets .....	5	5	—	8
Bags .....	4	10	—	7
Weald of Kent Pockets ...	5	3	—	6
Sussex Pockets .....	4	15	—	5
Yearlings in demand .....	4	2	—	5
Old .....	3	3	—	4
Old olds .....	1	1	—	3

**WORCESTER.**—The supply of hops at our annual fair on Monday was not so numerous as on former occasions, which may be attributed to the lateness of the season. There were between 700 and 800 pockets in the fair, of which were sold 587 new, and 17 old. Prices from 4*l* 10s to 5*l* 15s, according to quality, which was, generally speaking, middling. On the previous market day little business was done; about 184 pockets were in the market, and new 18, old 3, sold. It is the opinion of many that our duty is much over rated, and that it will not exceed last year's, viz, 15,751*l*.

## TURF INTELLIGENCE.

Such of the readers of this publication as have been in the habit of perusing our ex-cogitations, are aware that, on the approach of the Doncaster Races for 1835, we foretold the success of Queen of Trumps in a manner more positive than many of our friends deemed consistent. The cunning priests of Delphi, and the soothsayers of old, aware of the danger of specific or absolute prognostication, took great care to render their oracular conjectures so equivocal, that, come what might, the interpretation of the specious augury was sufficiently flexible so as to appear applicable to the event. If, however, in our surmise of last year, to which we have above alluded, we unhesitatingly ventured to pronounce the triumph of the Cambrian Queen as certain, our prophetic reputation was placed in little danger; since, with a knowledge of the powers of this extraordinary filly, and a tolerably accurate estimate of her competitors, scarcely a doubt could be entertained as to the result, particularly as we knew her to be in the hands of a gentleman (Mr. Mostyn) whose honourable integrity raised him far above suspicion. Thus presciently successful, we have, for some previous weeks, given our opinion of the prominent candidates for the St. Leger, which came off on the 20th inst. at Doncaster, and predicted the success of Elis; but not in that unqualified manner in which we last year expressed our pre-conviction of Queen of Trumps: nor was this possible; because the approach of Elis to the Doncaster St. Leger was indirect, devious, uncertain, and suspicious.

On the next assemblage of the metropolitan book men, after the conclusion of Egham Races, that proposal was made by the agents of Lord Lichfield, (1,200*l.* at 10 to 1 against Elis), which, however extraordinary it might appear, was agreed to, and under such conditions Elis was sent to Doncaster; as we already observed.

If therefore we calmly consider the progress of Elis up to the bargain in question, we must arrive at the conclusion that he was an extraordinary animal, but that his chance of winning the St. Leger was much reduced, owing to his previous exertions, so unusual on all similar occasions. Consequently, in speaking prospectively of the success of Elis, however high our opinion might be of his racing capabilities, we did not lose sight of the injury likely to result from such extraordinary previous exertions, particularly on a three-year-old. Yet, on the other hand, when we duly considered his struggle with Bay Middleton, and the manner in which he had performed the various engagements to which he had been subjected, and that there was good reason to believe he had sustained no injury from the succession of struggles already noticed; we hesitated not to pronounce him

prospectively the victor, for the then ensuing St. Leger, with, however, that degree of qualification which, under the circumstances already detailed, appeared indispensably requisite.

As a tabular list of Doncaster Races accompanies these preliminary observations, it will only be necessary to notice in this place those particular and prominent events which seem to require or to admit of further illustration.

The first event of these celebrated races for the present year (the Fitzwilliam Stakes) was rendered remarkable by the dead heat which took place between Birdlime and General Chasse, upon which the owners of these nags agreed to divide the Stakes. Our readers will recollect, that Birdlime carried off the Cup at the late Liverpool Races, in defiance of the General, whose previous distinguished success, particularly on the Liverpool Course, had raised him so highly in the estimation of the book men of the north-west, that he had continued the decided favorite up to the moment of starting.

On Tuesday, the 20th, at half-past three o'clock, the following candidates for the St. Leger appeared on the Course; namely, Elis, Scroggins (late Brother to St. Giles) Bee's Wing, Traphall, Ebberston, Vulture, Snyders, Bombasine Colt, Carew, Locomotive, Redshank, Wedge, The Carpenter, The Bard, and Black Diamond. From the time that Elis's appearance for this Great Stake became certain, up to this moment, the odds had continued in the same course; the only apparent difference being the increased estimate of Scroggins and Elis, the marked decline of Wedge, the extinction of Gladiator: we will quote the odds at starting:—

6 to 4 agst	Scroggins (Brother to St. Giles).
7 — 2	— Elis
8 — 1	— Traphall
10 — 1	— Redshank
10 — 1	— Wedge
14 — 1	— Bee's Wing
20 — 1	— Vulture
20 — 1	— Black Diamond
30 — 1	— Snyders

After two false starts, they went well away, Wedge taking the lead for "the honour of Ould Ireland;" but unfortunately for his own immortality, and the glory of the Sister Kingdom, he was soon superseded in his advance by Carew; the field well together, Elis and Scroggins in the midst of the throng, Traphall and Snyders bringing up the rear. Shortly, the favorites, Scroggins and Elis, might be observed advancing to the front; and, at length, Elis singled himself out and took a decided and commanding lead, going at his ease however, while Scroggins and Bee's Wing were struggling hard behind him: the result was no longer doubtful; the superiority of Elis became pre-eminently conspicuous: he went home at the top of his rate, several lengths a-head of Scroggins and Bee's Wing,

who very severely disputed the honor of the second place, which was given in favor of the former by half a head; The Bard and Snyders going in about a length behind Bee's Wing and her successful competitor: the rest of the field pulled up of course as soon as they saw their chance completely extinguished. A superior field, in all probability, never came out for the Doncaster St. Leger; and, making due allowance for the supremacy of Elis, it was a most interesting, a most beautiful race, witnessed by admiring myriads: the assemblage was very numerous; while, like Corinthian capitals, rank, fashion, and beauty, gave an exquisite finish to the densely crowded and busy scene.

Notwithstanding the trembling suspicion which was excited, and for some time kept alive, by the adscititious or unusual movements of Elis, no doubt can be entertained that the race was honestly run. The amount of the Stakes, after the customary deductions, is 2075*l*. The Earl of Lichfield and his party have been great winners, beyond all question; those who backed the opinion of the Scotts have suffered; as well as many of the professed book men, who, with the extraordinary performances of Elis staring them in the face, and the knowledge of his being all right, blindly encountered their fate.

Elis is by Langar, out of Olympia by Sir Oliver, her dam Scotilla, by Auvil, out of Scota, by Eclipse, out of Harmony, by Herod, out of Rutilla.

The next event in point of importance, was the Cup; for which we had booked Queen of Trumps as the winner, and Touchstone the second in our estimation, as a matter of course; it will be seen by the list, that the Cambrian Queen did not appear at the starting-post for this glittering prize, and therefore little doubt can be entertained that she was amiss; her fore-legs were always suspicious, and on this account she became an uncertain animal to back (p. p. at least) notwithstanding her otherwise very superior powers of progressive motion. Bad fore legs must be a family failing: Velocipede, her sire, presents in form the beau ideal of a racer, and he proved himself one of the very first class; yet we never saw more crazy fore legs: his stock generally prove racers.

As Queen of Trumps was out of the question, Touchstone might be said to have it all his own way. General Chasse was fancied by some for the Doncaster Cup; but such persons made a most erroneous estimate of Touchstone, to say nothing of several other competitors who, on this occasion, proved themselves superior to him. The General made but a poor figure last year at Doncaster for the Cup, while his recent complete defeat can add no refreshing spirit to his withering laurels. General Chasse is a very good horse, and has proved himself a superior racer: he has done more work than usual, and for the most part performed it well; but he cannot last for ever: "he would make a race with a

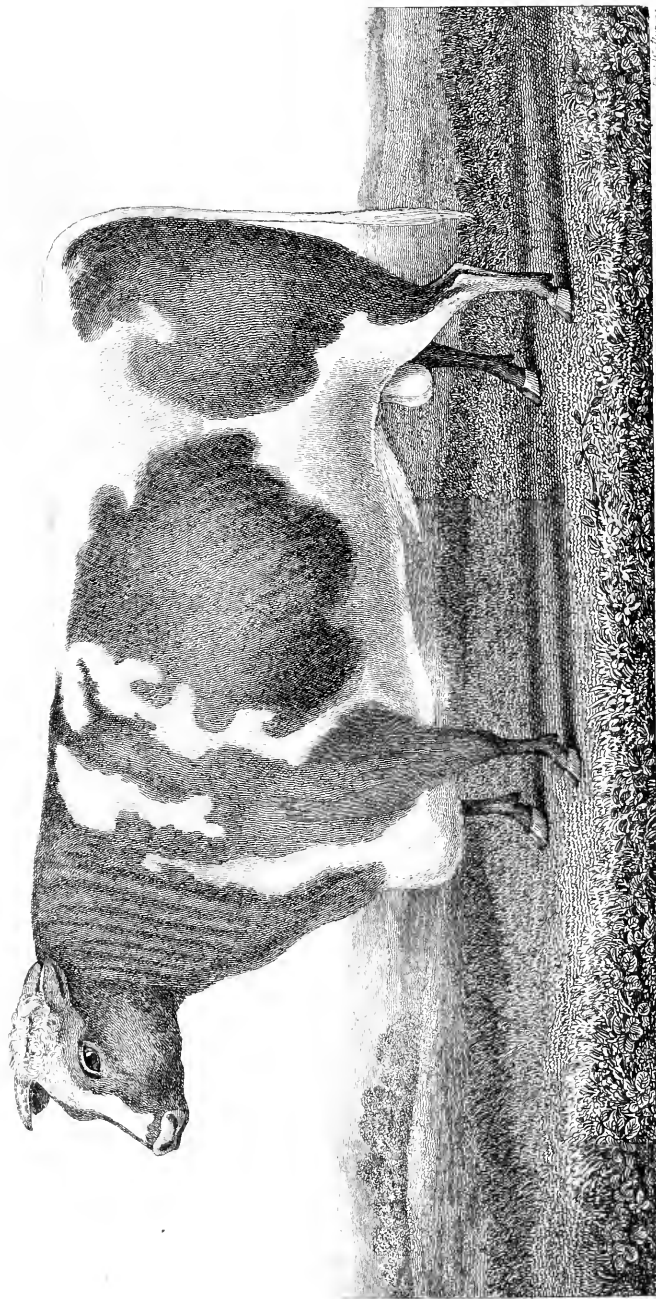
donkey," and in consequence of this disposition, has been enabled to go through more than ordinary exertion. If we take a retrospective view of the performances of Touchstone and General Chasse, we must acknowledge both horses to be far above the ordinary class of racers; but, notwithstanding the General's frequent success in the north-west, he sinks in the comparison with his successful rival.

Bee's Wing, the only one amongst the stock of the justly celebrated Dr. Syntax entitled to distinguished notice, has proved that she inherits one of the leading and most valuable qualities of her renowned sire; namely, stoutness. It was unfortunate for her to meet such a field for the St. Leger, and particularly such a competitor as Elis. She may be regarded as equally unlucky by coming in contact with Touchstone for the Cup: however, that she was much underrated by the book men previous to Doncaster Races has become evident by her performances.

Wedge, whatever might have been his pretensions in his native country, has, as we always suspected he would, proved himself miserably deficient for the Great St. Leger. Yet, did he occupy the second position in the list of the odds for a very considerable period, nor was it till Elis came permanently into the market that he found his proper level, and sunk into comparative nothingness.

**TURKISH HORSES.**—"The Turkish horses are easily distinguished from others by their forms. They have good middle pieces, though rather round; high and thick crests, resembling in their immense arch that of the Godolphin Arabian. Their heads are rather coarse and badly put on; and their legs are short, flat, and bony. The favourite colours are the pie-balds and the strawberries, especially when the two near legs and one of the off ones are white. The Italians have the same predilection, saying, *Balzano a tre, è cavallo di Rè*. White muzzles and wall-eyes are also considered as great beauties. One horse was particularly pointed out to us as remarkable for his extraordinary colour, which was certainly most singular, being a perfectly bright crimson shade of chestnut, which, viewed under the influence of the sun rays, looked exactly like the finest carmine. I imagined it to be produced by the khennah, or some other dye, but was positively assured it was the horse's natural colour. The Dongolese horses are excellently adapted for the carriage, many being from sixteen to seventeen hands high, very showy, and with grand action. They are, however, remarkably long in the back, and rough in their movements when rode. Sadih Khan, a Persian who has long resided in England, had lately arrived at Constantinople from his own country, bringing with him, amongst other horses, one of the breed of Takkah in Khorassan, which, in common with all his race, was possessed of the curious distinction of having no mane. He was altogether a showy horse, with an English thorough-bred look about him. The horses in Turkey are all kept excessively fat, and are shod with bare shoes, with high projecting nail-heads, there being no groove."—*Temple's Travels*.





From the

**THE BUCKLEBURY**

The property of Mr. J. H. Brown, of Blue Hill, N. Y. Exhibited at the meeting of the Essex Agricultural Association, at Danvers, Aug. 7, 1856.

Engraved by J. H. Wood, (1856), p. 100, No. 1, Vol. 1, 1856.

# THE FARMER'S MAGAZINE.

NOVEMBER, 1836.

No. 5.]

[Vol. V.

## THE PLATE.

The Bull "RUBY," which forms the subject of our Plate, is the property of Mr. R. Iveson, of Hedon, Yorkshire, and obtained the prize as the "best bull of any age, from any part of the kingdom," at the late Exhibition of the East Riding Agricultural Association. There were in all, ten competitors for the prize, and "Ruby" was declared by the Judges to be the best. "Ruby" was calved the 25th May, 1831,

by "Rolla," d. by M'Gregor," g. d. by Julius Caesar," g. g. d. by "Bacchus," g. g. g. d. by "Pilot," (495.)

"Rolla," by "Charles," (878,) d. "Fortuna," by "Pilot," (496,) g. d. "Modish," by "Remus," (477.)

"M'GREGOR" by "Rob Roy," (557,) d. by "Wellington," a son of "Old Brampton," g. d. by Mr. Collins' "Short Legs," a son of "Minor," g. g. d. by Mr. Dale's son of "Brown's White Bull."

## THE HIGHLAND AGRICULTURAL SOCIETY.

Since our last reports of the proceedings at two most important Agricultural meetings have come to hand. The meeting of the Highland Agricultural Society at Perth, and of the Liverpool Agricultural Society at Liverpool. We have always held up the Highland Agricultural Society as a model for all other societies, and we rejoice to be enabled to state, that nothing has occurred to alter in the slightest degree the good opinion we have ever entertained of the benefits which a perseverance in a similar course must produce to the cause of agriculture. The exhibition of stock at Perth far exceeded in quantity and quality that of any former meeting. The improvement in the quality of stock generally in Scotland, and the improving condition of the agriculturist were generally admitted. Considerable doubt has been thrown by many persons upon the correctness of a statement made by Mr. S. Lefevre in his pamphlet, as to the realization of better profits by the Scotch than the English farmers, of which evidence was given in detail before the Agricultural Committee. We find, however, the Noble Chairman, the Marquis of Breadalbane, making the following observations, not only uncontradicted but seemingly approved by the company present, consisting of 1,100 noblemen, gentlemen, and yeomen.

"That great source of wealth, the agriculture of the country, is prospering with us, I believe, more than has been acknowledged by our southern neighbours to be the case with them; and it has been stated in evidence before the Parliamentary Committee, that upon certain soils which in England return but small profits, or rather none at all, remunerating returns from similar soils are made in Scotland. (*Hear, hear.*) This effect, gentlemen, is in some measure to be ascribed to the proprietors; but

also in a greater degree to the intelligence, skill, and sound judgment of the tenantry." (*Cheers.*)

Too much cannot be said of the benefits derived from agricultural associations, in bringing landlords and tenants together, in causing them to associate upon such an equal and friendly footing as may enable the landlords to ascertain of their own personal knowledge, and not through the representation of others, the precise situation in which not only their own tenantry, but the tenantry generally are placed. The advantages resulting from such intercommunity did not pass unnoticed at the Perth meeting. The Marquis of Tweeddale observed—

"Connected as he was with many of the agricultural societies in the south, and having attended their meetings, he had every opportunity of being intimately acquainted with their sentiments and feelings. It was through the means of these agricultural societies that he had the pleasure of making acquaintance with the industrious tenantry of Scotland, the greatest pleasure he had enjoyed since his establishment in his native country."

Mr. Fox Maule, M. P., too, gave expression to similar sentiments. He said—

"I am one of those who admire meetings of this nature, because, as my friend Mr. Watson said, they bring the landlord and tenant into friendly competition, where the tenant as often proves victor over the landlord as the landlord over the tenant. I admire them for another reason, which my friend omitted to mention, that they bring them together again in the afternoon round the social board; where all are mixed and associated together without any further arrangement, except what is necessary to support the chair and the vice chair, and where landlord and tenant mix together, receiving freely the opinions of each other, giving and taking jokes, and all joining in the conviviality and harmony of the meeting." (*Cheers.*)

Mr. Oliphant, M. P. adverted to the knowledge

which he had himself acquired from attending such meetings.

"He had travelled," he said, "over great part of the continent, but he had never met with a society or with a meeting, which had for its objects the beneficent purposes of this society. There was no other country in the world where the Lord and his tenantry sat together, and talked freely with each other of the best and most economical mode of rearing the productions of the earth, and the breeding of stock. He stated that he had been a witness before the late Parliamentary Committee on Agriculture, and the attention which was there paid to Scotland would have made a Scotchman's heart dance within him. He and his friends were frequently asked how he came to know such and such things: and their general answer was—because we mix with men who have intelligence to communicate them to us." (*Cheers.*)

Several eminent agriculturists from England attended, amongst whom was Mr. Handley, M. P. for Lincolnshire, who, in returning thanks on behalf of the "strangers" present, made a speech replete with sound principle, and containing much valuable information, more especially upon the application of steam power to lusbandry. The Honourable Member observed—

"The noble Lord, your excellent and esteemed President, observed somewhat early in the evening, that your southern brethren were labouring under distress; but I observe he expressed that opinion with some degree of doubt. Permit me with sorrow and pain to tell you, there is no doubt about it. (*Hear.*) I speak feelingly—practically—on this subject. The causes I do not pretend to name; but, however fortunate you may have been when wheat was selling at 4s or 5s per bushel, we were not in the same boat with you, and suffered a considerable deficiency, though I am happy to say that is now in course of being ameliorated. It is, however, a wise dispensation, that out of evil good rises; and I believe that good has risen in this instance to the farmers of England. *They no longer look to Parliament for relief—they feel they have protecting laws which give them the highest prices in Europe for their produce, and they can expect no more;* and that in contending with that depression of prices which they have suffered—and which, considering the prospects of the country I fear they have still to look forward to—they must do as you do—they must pursue the course in which, for the last 50 years, aided as you have been—and gentlemen should never forget it—by a moral and religious peasantry (*cheers*) you have successfully contended with the rigours of your northern climate, and the sterility of your soil. (*Cheers.*) You have set an example to us of what may be done by skill, enterprise, and determination; and I trust the day is not far distant when we shall have such a society as the noble Lord alluded to; when we shall take a leaf out of your book, and I trust we will derive advantage from it. (*Cheers.*) I am aware I have detained you too long already (*cheers and cries of "no"*), but I confess I shall feel disappointed if, after the compliment which the Society did me the honour to pay me last Summer, in corresponding with me upon the application of steam to agriculture; and considering the interest which they showed on the subject at their next meeting—and the munificent manner in which they expressed the interest they felt—I shall be disappointed if, after all that, I left Perth without any allusion to the subject. When I look forward, as I must do, to the prices which we may in future expect to obtain for our produce, and feel that we must depend upon our own exertions alone, I

am impressed with the conviction that steam does not blaze for the manufacturer only, but that that mighty and almost superhuman aid may be applied to the pursuits of that class of gentlemen to whom I am now more immediately addressing myself."

Of Mr. Handley's devotion to the cause of agriculture, no man, we believe, who is acquainted with him can doubt. His practical knowledge is great, his labours in the Agricultural Committee have put him in possession of information which enables him to take a correct view of the situation and prospects of the British farmer; and what does he tell them, but what we have told them over and over again, that to their own exertions, including of course improvements in the science of agriculture, and not to the legislature, must they look for redress. Having made some further remarks upon Mr. Heathcote's steam-plough, upon which he stated Mr. Heathcote had expended 10,000*l.*, he observed, that Mr. Parkes, who superintended the engineering department of the machine, was present, and would enter more fully into the details. Mr. Parkes having been called upon by the Chairman, gave an interesting account of the history of Mr. Heathcote's invention. He said—

"Mr. H. and he had been more than three years occupied before they were aware that any individual, or any body, had turned their attention to the subject. They at length became acquainted with his friend, Mr. Handley, whom he might now call a steam apostle—(*Laughter*)—for he travelled into all places to advocate the cause.—With reference to the invention itself, he stated that the machine which gave impulse to the plough was locomotive, but not to the same extent as the plough itself. By a peculiar process the machine was made to advance only 11 yards, while the plough attached to it turned over a statute acre of ground. By this means a great economy of power was obtained. He also stated that from the anomalous nature of bog land—a mixture of peat and water—no expense was incurred in the articles of water or fuel, the ditches supplying the former and the peat the latter. The machine was thus enabled to feed itself as it went on; and in fact the workmen gave it the name of the Running Fire. He then stated that Mr. Heathcote and himself had been so absorbed in investigating the mechanical properties applicable to the machine, that they had not been able to devote much attention to the chemical properties of bog. But he might state one or two curious results to which their enquiries had led them. It was generally supposed that bogs could not be cultivated except by manure; and it was very easy to see, that in Ireland, where there were 2,500,000 acres of that anomalous substance, it was impossible to obtain manure to such an extent; but he had discovered that they could make the bog itself furnish a manure, which produced as beautiful grasses as were to be seen any where in Great Britain. This was done by converting the superficial coat of moss into coke; and they found that the carbonaceous matter contained in the moss was quite sufficient to produce those grasses.—As an instance, he mentioned that last June twelve-months, he ploughed a piece of bog, and laid on it the ashes of the peat-coke. From that land he had since taken five crops, which was a sufficient proof that the power of peat dust or coke was enough to produce the effects he had mentioned. He stated farther, that they had by means of steam, been able to convert the moss into a beautiful mould, but they had



not yet succeeded in causing it to ferment. He mentioned this in order to stimulate others to take up the subject. The system they pursued in moss cultivation was to begin ploughing without any draining. The plough completely turned up the sod, so that the heather, lying beneath, formed a drain of itself, and the new surface was rendered quite level. They left it in that state to the action of the elements for two years; or one with a hard winter might be sufficient. They found that this simple process was quite sufficient for pulverization."

The proceedings at the meeting of the Liverpool Society, of which a full report will be found in another part, will be to the full as satisfactory as those at Perth. The remarks upon the benefit of draining, contained in the REPORT of the Committee deserve particular attention. The speech of John Binns, Esq. of Lancaster, should be most carefully perused, containing as it does a mass of sound practical information, compressed in a very narrow compass.

## AGRICULTURAL MEETING AT PERTH.

GENERAL SHOW OF LIVE STOCK, IMPLEMENTS OF HUSBANDRY, ROOTS, SEEDS, &c.

*Under the patronage of the Highland and Agricultural Society of Scotland.*

This great Agricultural meeting and exhibition was held at Perth on Friday, Oct. 7.

Judging from the money collected at the entrances, the number of visitors to the exhibition must have fully exceeded 5,000.

The number of strangers in Perth exceeded all precedent. For some days previously the roads in every direction presented a constant succession of arrivals—landed proprietors and agriculturists were present from England and Ireland; while every district in Scotland and the Isles had its agricultural wealth and intelligence represented at this meeting. The following is an authentic account of the proceedings:—

The arrangements for this great meeting, the second which has been held under the auspices of the Society at Perth, were conducted by a Committee consisting of the Lord-Lieutenants, Vice-Lieutenants, Conveners, and Committees, especially named by each of the counties of Perth, Forfar, Fife, and Kinross, assisted by a deputation of the Directors of the Society and the Secretaries of the Local Associations connected with these counties.

The noblemen and gentlemen forming the committee were nearly all in attendance early on the morning of Thursday, and after partaking of an elegant *dejeuner a la fourchette*, given by the Lord Provost and Magistrates of the City of Perth, in the Assembly Rooms, entered upon the active and preparatory duties of the day.

Lord Kinnaird took the chair; there being present Lord Stormont, Preses of the Deputation of Directors, the Marquises of Tweeddale and Breadalbane, and the other noblemen and gentlemen members of the Committee. The various committees were named for conducting the duties of the meeting, and the following gentlemen were appointed as judges for determining the premiums for the different classes of Stock and other subjects of competition.

For the *Short-Horns*.—The Marquis of Tweeddale; Mr. Charge, Baron, Richmond, Yorkshire; and Mr. Heriot, Ladykirk, Berwickshire.

For the *West Highland Breed*.—Mr. Stewart of Auchadashnig, Island of Mull, Argyllshire, and Mr. M'Farlane, Strachurmore, Argyllshire, and Mr. Campbell of Jura.

For the *Ayrshire Breed*.—Mr. Bartlemore of Seaside, Ardrossan, and Mr. Wilson of Deanside, Renfrew.

For the *Polled Breed*.—Mr. Miller of Ballumbie; Mr. Proctor of Glamis; Mr. Crawford, of Balbozie.

For the *Fife Breed*.—Mr. Crawford, Balbozie; Mr. Forsyth, Balbirnie; Mr. John Proctor, Glamis.

For the *Best of any Breed*.—The same Judges as for the *Short-Horn*.

For *Horses*.—Mr. Cossar, Dunse, and Mr. Dick, Veterinary Surgeon, Edinburgh.

For *Black-faced and Cheviot Sheep*.—Mr. Graham of Lockerbie, Dumfries-shire, and Mr. Sellar, of Westfield, Sutherlandshire.

For *Leicester and Crosses with the Leicester*.—The same Judges as for the *Short-Horns*.

For *Swine*.—The same Judges as for the *Short-Horns*.

For *extra Stock*.—Mr. Hunt, Thornington, North Durham; Mr. M'Donald, Craighuie; Mr. Torrance of Kilsaintinian.

For *Implements, Roots, and Seeds, &c.* Mr. Robison, Secretary of the Royal Society, Edinburgh; Professor Low; Mr. Hunter of Thurston, East Lothian; Mr. Parkes, Engineer, Lancashire; Mr. Oliphant of Condie; Lord Douglas Gordon Halyburton, and Mr. Slight, Curator of the Highland Society's Models.

For *Sweepstakes*.—Mr. Watson, Keillor, and Mr. Thomson, North Mains of Strathallan.

At an early hour on the day of the Show, a large Committee of Gentlemen were in attendance, and so perfect were all the arrangements, that the whole of the animals were in the situations allotted to them, and the Judges ready to enter upon their duties at half-past nine o'clock. By the kindness of the Board of Ordnance, the handsome and spacious building formerly erected for prisoners of war was assigned for the Show. By the same obliging attention a splendid banquetting room, within the barraeks, calculated to contain above 1,000 persons, was fitted up for the Society's accommodation.

The Stock of all kinds brought forward in competition for the premiums amounted to 709, being 315 head more than were exhibited at the previous Meeting at Perth—and of a quality very far superior.

### CATTLE.

Of the *Short-Horned* breed, 39 animals were entered for competition, namely, 22 Bulls, 11 Cows, 3 Heifers, and 3 Steers, calved after January 1834. The increase in the number of this valuable breed, is the subject of just congratulation, not only on account of the intrinsic merit of this class of Stock, so much suited to the more fertile parts of the districts immediately connected with the Show, but as being calculated to improve in a remarkable manner the less improved of the native Stock. It is not here our purpose to recommend rash and inconsiderate crossing, but there are assuredly a few of the races of the lower parts of Scotland, into which an infusion of the blood of this highly cultivated breed will not be productive of important benefit. Amongst the Competitors of this class of Stock, we are pleased to record the names of the Duke of Buccleuch, the Earl of Hopetoun, Lord Kinnaird, Lord Gray, and others, all anxious to contribute their endeavours to the improvement of this part of the Stock of the country.

The premiums awarded were as follows:—

For the first class of Bulls, the first to Mr. George Reid, Ballancrieff, East Lothian; the second to Mr. Samuel Richmond, Chaplebank, Perthshire. For the class of Cows to Mr. Thomas Ritchie, Bowhouse, Clackmannanshire. For the Class of Heifers, to Mr. Barclay Allardice of Ury. For the class of Steers, calved after the 1st January 1834, in lots of two, to Mr. Charles Hunter, Argaitth, Perthshire. In this class of stock the heifers exhibited by the Duke of Buccleuch, were noticed as deserving great praise.

**WEST HIGHLAND BREED.**—It was to be anticipated that this, the most important of all the native breeds of Scotland from its being the staple produce of so large a part of the country, would attract peculiar attention. The number of animals entered for competition was 42, of which 8 were bulls, 14 cows, 4 oxen, calved after 1st January 1832, 2 oxen, calved after 1st January 1833, 9 heifers, calved after 1st January 1832, 4 heifers, calved

after 1st January 1834; amongst the competitors we noticed the names of some of the most distinguished breeders of Highland stock, and as a gratifying proof of the emulation excited, several of the lots travelled a distance of 250 miles to the place of exhibition.

The premiums awarded for the West Highland Stock were as under:—The first to the Marquis of Breadalbane; the second to Mr. Donald Stewart, Luskintyre, Island of Harris. The bull of Mr. James Stewart, Edra-leuchdach, near Callender, was noticed by the Judges in terms of commendation, and the honorary premium was awarded to the Marquis of Breadalbane as the breeder of the best bull in this class.

The Premium for Cows in this class was awarded to the Marquis of Breadalbane, and the ewe exhibited by Mr. James Stewart, was also noticed as possessing merit.

For the fat Oxen of this breed, calved after 1st January 1832, to Mr. John Wauchope, of Edmonstone, and those belonging to Mr. Charles Stewart of Chesthill, were commended by the Judges.

For the fat Oxen calved after 1st January 1833, to Mr. Alexander Stewart of Glenlyon House.

For Heifers calved after 1st January 1833, to the Marquis of Breadalbane, and for Heifers calved after 1st January 1834, the premium was also awarded to the same noble Lord.

For the five Oxen calved after 1st January 1834, bred by the exhibitor, to Mr. Charles Stewart, Chesthill.

**AYRSHIRE BREED.**—The number produced of this head being 30 in all, was much greater than we should have anticipated, evincing, however, the high favour in which its qualities for the dairy are held over Scotland. Amongst those who contributed in the largest numbers in this branch of stock, was the Earl of Mansfield. The premiums were awarded as under:—

For the best Bull to Sir John Muir Mackenzie, of Delvine, as also the Honorary Medal for being the breeder of the best bull. The Bulls exhibited by the Earl of Mansfield and Mr. Peter were commended by the Judges as deserving of merit.

For the best Cow to the Earl of Mansfield, and that exhibited by Mr. Lawrance, Drews, was commended by the Judges.

For Heifers calved after 1st January, 1834, to the Earl of Mansfield; and other two lots exhibited by his Lordship were commended by the Judges.

The Galloway, Polled Angus, and Polled Aberdeenshire breeds occupy an important place in this exhibition, though the numbers brought forward on the present occasion were comparatively small. The reasons which induced the Society to class those breeds together are detailed in a report published by the Society explanatory of the principles according to which they proposed to frame their offers of future premiums. The principal exhibitor in this class is Mr. Watson of Keilor, and it is a pleasure to us to record the high sense entertained by all breeders of the skill and judgment with which this gentleman has proceeded in his course of improvement. Whatever difference of opinion may exist as to the expediency of extending the Polled Angus as a breed, none can exist as to the merits of Mr. Watson as its great improver. In his hands this race seems to have arrived at all the perfection of form of which it is capable.

The premiums most justly awarded were, for the best Bull, calved after 1st January 1830, to Mr. Watson, besides an honorary premium for being the breeder of the best Bull in this class.

For the best and second best Cows, to Mr. Watson. For fat Oxen calved after 1st January 1832, to Mr. Watson.

**FIFE BREED.**—The number of animals entered of the Fife breed was sixteen, namely, six bulls, six cows, two fat oxen, and two steers calved after 1st January 1834. Much discussion has arisen regarding a resolution of the Society not to give premiums for the direct cultivation of the Fife breed, but to give premiums to the animals so named solely as they should be in themselves good. This was founded on two positions, first, that although admirable animals were constantly produced,

in Fifeshire, by the care and skill of particular breeders yet the general character of the Stock of the County is not such as to render it expedient to perpetuate it as a distinct breed, and, secondly, that the County of Fife was enabled of producing the finest Class of Stock, and therefore did not require protection for its peculiar breed. But, in the case of the present exhibition, a concession was justly made to the wishes of the gentlemen of the county of Fife, and a class of premiums was framed for this particular breed. The result thus far accords with the opinion expressed in the Society's Report that excellent animals may be raised by the breeders of this stock, as indeed of every other to which the necessary attention is given. The stock exhibited on the present occasion does the highest credit to the gentlemen who have brought it forward, and the premiums were awarded as follows:—

For the best Bull, calved after 1st January 1830, to Colonel Lindsay of Balcarras. An honorary premium was awarded to Mr. Thomson of Orkie, as the breeder of this bull. The bulls of Mr. Thomson, Orkie Mill, and Mr. David Wallace, were commended as possessing great merit.

For the best Cow of the same breed, to Mr. James McB. Fernie of Kilmux. The cows belonging to the Earl of Rothes, Mr. Hill of Lambro, Mr. Hutchison, Kirkaldy, and Colonel Lindsay of Balcarras, were recommended as possessing great merit.

For Oxen, calved after the 1st January 1832, to Lord Loughborough; and for those calved after 1st January 1832, to Mr. Fernie of Kilmux.

For fat Oxen, calved after 1st January 1833, to Mr. David Wallace of Balgrumo, Fifeshire; and for Steers, calved after 1st January, 1834, bred by the exhibitor, to Colonel Lindsay of Balcarras.

**ANY BREED.**—For the fat Ox of any breed, pure or cross, except the Short Horn, calved after 1st January 1832, the first premium was awarded to Mr. Andrew Dalgairns of Ingliston, for a cross between the Angus and Short Horn, and the second to Mr. O. Tyndal Bruce of Falkland.

The Judges also noticed in terms of commendation another ox exhibited in the same class by Mr. Bruce, and an ox exhibited by Mr. Fernie of Kilmux.

#### SHEEP.

The Sheep Stock brought forward was very numerous and important. The first in order was that of the Black-faced, heath-breed. Amongst the competitors we find the name of Mr. Robertson of Broomlee, who justly occupies so high a place as the improver of this race of sheep.

The premiums awarded in the Black-faced breed were:—For the best Tups to Mr. Alexander Denholm Beatlows, Lanarkshire.

For the best pen of five Ewes, not exceeding five years and seven months old, selected from a regular breeding stock of not fewer than 100, and the ewes having reared lambs to 1st July, to Mr. Thomas Robertson of Broomlee.

For the best pen of five Gimmers, under the same conditions, to Mr. Andrew Weir, West Linburn, Ayrshire.

For the best pen of five fat Wethers, under similar conditions, but not exceeding four years and seven months old, to Mr. James Miln of Woodhill, Forfarshire.

For the best pen of fat Wethers, under similar conditions, but not exceeding five years seven months old, to Mr. Thomas Robertson, Broomlee.

**LEICESTER BREED.**—It is with real pleasure we saw the numerous list of Competitors in this important class of Stock, and the valuable animals brought forward by breeders of distinction.

The following premiums were awarded:—For the best Tups not exceeding 45 months old, to Mr. Watson of Keillor.

For the best pen of three Ewes of any age, to Mr. Watson of Keillor.

For the best pen of three Wethers, not exceeding 32 months old, to the Earl of Mansfield.

For the best pen of Gimmers, to Mr. Watson of Keillor.

For the best pen of Wether Lambs, to Mr. Watson of Keillor.

For the best pen of Ewe Lambs, to Mr. Watson of Keillor.

**CHEVIOT BREED.**—We were somewhat surprised at the small comparative number of this class of stock. The premiums awarded were as under:—

For the best Tups to Mr. William Aitchison of Menzeon, Peebles-shire.

For the best Ewes, also to Mr. Aitchison.

**CROSS BREEDS.**—For Wethers of any cross, to Mr. John Gardner of North Kinkell, Perthshire.

#### HORSES.

Although the exhibition of this important Class of Stock was much less numerous than we anticipated from the district, there were some very fine animals amongst the Stallions—several Mares worthy of notice, but the Fillies were of very inferior description.

The premium for the best Draught Stallion was awarded to Mr. Alexander Keith of Netherthird, Aberdeenshire.

The Judges noticed the Stallion belonging to Mr. Wilson, Firthfield, Fifeshire, as being the second best.

For the best breeding Mare, for agricultural purposes, to Mr. Andrew Bannerman of Tullibardine, Perthshire; and for the second best to Mr. William Mackean of Lumloch, Lanarkshire.

For the best Filly for agricultural purposes, to Mr. Christopher Veitch of Park, Linlithgowshire.

#### SWINE.

Amongst the class of Swine a considerable number was produced; the premiums were awarded as follows:—

For the best Boar to Robert Graham, Esq. of Garvoek.

For the best Sow to Lord Lynedoch.

For the Sows belonging to Cottars who do not pay 1*l.* of Rent, to Mr. William Ancher of Tullibardine Cottage.

For the best Pigs, to the Earl of Mansfield.

#### WOOL.

The premiums advertised for the best samples of wool were awarded at the Wool Fair held at Perth on 12th July last. The successful competitors were for the best combing wool, to Captain Hunter of Auchterarder. For Cheviot or short wool to Mr. John Welsh, Glenefiek, Forfarshire. For Highland wool, to Mr. John Bennet, Methven Street, Perth.

#### EXTRA STOCK.

A great variety was produced under this head, many of them possessing much merit. A fine cow of the North Devon Breed, belonging to Lord Lynedoch, deserves to be especially noticed. This animal may be considered as nearly a perfect specimen of the pure North Devon breed. A three-year-old heifer, a cross between the short-horn and Ayrshire, the property of Mr. D. Ritchie, was remarked by the Judges to be very fine, as were two three-year-old Lewis heifers, the property of the Messrs. Stewart. We have to notice also a fine three-year-old heifer, the property of Mr. Charles Stewart, small but handsome; a short-horn quey calf, the property of Mr. Thomas G. Mackay; and an uncommonly fine Highland ox, the property of the same gentleman. The following are also referred to by the Judges in their report:—A cow, seven years old, a cross between the short-horn and Ayrshire, the property of Mr. Alexander Symons, Errol; a Guernsey Cow, belonging to Mr. Smythe of Methven; four two-year old heifers, belonging to the Earl of Mansfield; a short-horn bull calf, the property of Lord Rollo; two curious oxen, supposed to be of the old Scotch breed, the property of Mr. Fox Maule; three oxen of the Highland breed, belonging to Mr. Charles Stewart; four oxen, crosses between a short-horn and a country cow, the property of Mr. Dron; a very good ox of the Fife breed, belonging to Mr. Fernie of Kilnux; a bull of the polled Angus breed, the property of Sir James Montgomery; and lastly, a short-horn bull, the property of the Duke of Buccleuch.

Amongst the Class of Extra Sheep, we have to notice with the highest commendation, two splendid Rams of the Southdown breed, exhibited by Mr. Ellman of Beddingham, in Sussex. The Messrs. Ellman are known throughout England as the great improvers of this beautiful breed; and we feel gratified that such examples of it have been introduced directly into Scotland by themselves. Mr. Watson of Keillor is the chief supporter of the Southdowns in Scotland, and he produced some very fine specimens of them, derived, originally, we believe, from the stock of Mr. Ellman, but now reared and acclimated upon his own farm. The Judges remarked with approbation, three wethers, one a pure Leicester, and two crosses between the Cotswold and Leicester, the property of Lord Lynedoch; a tup of the Leicester breed, the property of Mr. Handley, M. P.; a year-old tup of the Leicester breed, the property of Mr. G. Weir; and lastly, two ewe lambs of the black-faced breed, the property of Miss Spence Yeaman of Murie.

Amongst the Extra Stock of Horses there was particularly observed by the Judges, a thorough-bred stallion, belonging to Lord Kinnaird, fitted for excellent hunters and roadsters; and a fine black filly, belonging to Mr. Bannerman of Tullibardine, was particularly admired.

#### SWEEPSTAKES.

Various Sweepstakes by the members of the Perthshire Farming Association afterwards took place, which excited much interest amongst the competitors:—1st, For the best one year old Filly, gained by Mr. William Thomson, Ledketty. 2nd, For the best two year old Filly, gained by Mr. Bannerman, Tullibardine. 3rd, For a three year old Filly, gained by Mr. George Ritchie at Rhynd. 4th, For the best breeding Mare for agricultural purposes, gained by Mr. William Cunningham, Goodlyburn. 5th, For the best two year old Colt, gained by Mr. Hunter of Auchterarder. 6th, For the best Leicester Tup, gained by Mr. Staines at Lynedoch. 7th, For the best pair of cross-bred Stots, gained by Mr. Hunter of Auchterarder. 8th, For the best Cow-calf of the pure short-horned breed, gained by Mr. Alexander Symons, Erroll.

#### IMPLEMENTS AND MACHINES.

In this class a working model of a very ingenious machine for making draining tiles, invented by the Marquis of Tweeddale, excited much attention. This machine moulds the clay into the form required, with facility, and seemed to the Judges well calculated to answer the purposes intended. An honorary medal was voted to the noble Marquis.—Premiums were voted to Mr. Jaek for a contrivance for securing an equal flow of water from dams and reservoirs. To Mr. Stewart Hepburn for a model of conical rollers for pulverizing soil. To Mr. Stirling of Glenbervie, for a moveable harper screen, for sorting gravel; and for a species of moveable wooden railway for removing turnips from wet land. The Judges farther called the attention of the Society to various useful implements. To an enlarged and improved road scraper, by Mr. John Melville. The improved straw and hay-cutting machine of James Slight and Co., Edinburgh, machine-makers to the Society, was shown in operation, and attracted much interest and attention. To various implements exhibited by Messrs. Drummond of Stirling. To lots of draining tiles of superior workmanship and materials, of Mr. Bogle of Ayr, and Mr. Stirling of Glenbervie; and to Mr. Crosshill's patent clod-crusher.

The reaping machine, by Mr. Smith, of Deanston, was again brought forward, and was tried in presence of members of the Society on Friday. Nothing can exceed the perseverance of this gentleman in the perfecting of this important instrument; and we trust that he will speedily be enabled to surmount the difficulties which may still present themselves. We should almost despair of success if it failed in the hands of Mr. Smith.

Mr. Beart of Godmanchester exhibited a patent machine for making drain tile, which has the merit of being extremely simple, both in construction and in

operation; and, among many others, the following may also be mentioned:—

A turnip and bone-dust sowing-machine, for one drill, by David Barty, Meiklcour.

A model of a compact family mangle, by John Ramsay, Kettins.

#### ROOTS AND SEEDS.

The first to be noticed of the subjects of competition under this head is the extensive collection produced by Messrs. Lawson and Son, Seedsmen of the Society. This collection, besides examples of plants suited to common cultivation, presented a number of rare objects, and particularly specimens of the cones of *Him-mayala Conifera*, transmitted to the Highland and Agricultural Society, by the Hon. Leslie Melville.—Some specimens of grain from Professor Fisher of St. Petersburg were also exhibited, and a great variety of roots and tubers. The Committee recommend that honourable notice be taken of the exertions of Messrs. Lawson and Son on this and on all former occasions. The next exhibition to be noticed is a collection by Messrs. Dickson and Turnbull of Perth. This, besides containing numerous examples of the potatoe and other useful plants, contained a very extensive collection of coniferous trees. The Committee recommend that an honorary premium be awarded to Messrs. Dickson and Turnbull.

Messrs. Drummond of Stirling, exhibited a collection of various vegetable productions, and amongst these a specimen of *Trifolium hybridum*, a plant which has been recently introduced to the notice of agriculturists, and is likely to admit of beneficial cultivation. The Committee recommend that an honorary premium be awarded to Messrs. Drummond.

Specimens of preserved potatoes were produced by Mr. Sharp; specimens of large turnips and other plants, by the Earl of Rothes, and some very fine specimens of Cabbage by Baillie Ross of Perth.—The Committee recommend that these contributions be acknowledged by a proper notice in the account of the proceedings of the show. An extensive collection of dried specimens and grass seeds was produced by Mr. Bishop, and an authenticated account of the produce of potatoes cultivated by him. Mr. Gorrie of Annat Crove, presented an extensive collection of vegetable productions, including 12 varieties of Barley, 58 varieties of wheat, 15 varieties of field peas, 19 varieties of oats, and 12 of field beans; several new and tall grasses from America; 20 specimens of aftermath from valuable varieties. The Committee recommend that thanks be given to Mr. Bishop, and that an honorary medal be given to Mr. Gorrie, with a warm expression of the Society's sense of his meritorious attention to bringing into notice varieties of useful plants.

#### BUTTER AND CHEESE.

Although no premiums were offered, various specimens of native cheese were produced, and particularly by Messrs. Dickie from Stewarton, Mr. Boreland from Hill House, Mr. James Dunlop, and Mr. James Lindsay from Fenwick, all in the county of Ayr. Lord Lynedoch also sent specimens of cheese made at Lynedoch, in the manner of Leicester, and which the Judges reported to be of excellent quality.

**THE TITHES ACT.**—Opinion of the Bishop of Exeter on the practical effects of this Act, delivered at the visitation at Exeter:—"My own opinion is, that in the first instance, it will work well; but, however equitable it may at first appear, it is likely, after a lapse of years, to leave the incumbents with little or no compensation, and that all the benefit would fall to the share of the landowner. For, in consequence of the improved and improving state of cultivation—and in this age of invention, where internal communication is and will be so much laid open—the value of land will be greatly increased, and the landowner has no right to shut out the clergy from their share in the advantage. In the

reign of Henry VIII. all Church property was valued, and there is not a living in the kingdom but was reduced as low as 20*l*. Wheat was then 10*s* per qr, and if a corn-rent had been the criterion of value, instead of there being livings worth 800*l* or a 1,000*l* a-year, they would have been estimated at forty quarters of wheat, which would have amounted to no more than 80*l*, and at a period of more modern date, not beyond the memory of many of those who hear me, in the year 1792, wheat was about the same price as at the present time, when the value of land was increased twofold, and so had the income of those holding benefices. If, therefore, the present act had been passed at that time, their income would have been only half what it now is. Now there is no reason why such causes may not operate in a similar manner at a future period, so that by fixing permanently the amount of tithes by this act, a great injury may be inflicted upon the clergy, who may hold benefices at a future period, for that which may appear equitable at the present moment, may be the means of reducing their income to one half the present amount.

**THE AGRICULTURISTS.**—The Conservatives and the Conservative Journals, being in the habit of setting themselves up as the only "friends" of the Agriculturists, we recommend the following leading article of that most leading Conservative Journal, *The Times*, to the attention of our Agricultural readers:—

"A very bulky volume of the evidence taken before the Select Committee of the Lords 'on the State of Agriculture' has been published. We know not who selected the witnesses; but, for the most part they are persons well known to be thick-and-thin supporters of the Corn Laws, advocates of high prices, and anti-Peel's-Bill theorists. We shall, probably, make some extracts in a day or two, and thus exhibit to the world what feeble and inconsistent arguments are adduced in order to bolster up an erroneous system. The cultivators of bad land, and the friends of an unsubstantial currency, are too much interested in high rents and high prices to be adopted as oracles. Reasonable rents, under ordinary circumstances, insure to the farmer reasonable profits; and the merchant should feel that a well-conducted enterprise, founded on the calculation of moderate prices, is a more certain as well as a more reputable mode of acquiring wealth than any of those gigantic gambling speculations, when, in order to obtain immense returns, all is risked, and frequently all is lost, *not* excepting honour."

One of the most important branches of the commerce of Paris is the butcher's trade, 72,000 bullocks, 16,000 cows, 72,000 calves, and 360,000 sheep, being required for the yearly supply of the inhabitants of the capital. The net price of the above amounts to 42,584,000*fr.*, and to 48,109,200*fr.* including all expences and duties, which are paid before the meat is sold to the consumer. The following is a summary of the receipts of the butchers, which may be compared with the expenditure:—Meat 41,515,200*fr.*, skins and hides, 4,860,000*fr.*, tallow, 4,023,200*fr.*, offal, 1,304,000*fr.*, tongues, 176,000*fr.*, feet, 165,440*fr.*; sum total 52,133,840*fr.* Deducting from the above sum the cost, or 48,109,200*fr.*, it will appear that the profits amount to 4,024,640*fr.* which, divided among the 500 butchers of the city of Paris, will leave for each a yearly profit of 8,049*fr.* 33 *c.*—*Galignani.*

## THE SUTHERLAND OBELISK IN SHROPSHIRE.

We noticed some time ago the determination of the Tenantry of the Duke of Sutherland's Shropshire estates to erect an Obelisk on Lilleshall Hill, in this county, in token of their respect and gratitude to the memory of their revered landlord, the late Duke, and a subscription was set on foot, and upwards of 800*l.* was immediately subscribed by the tenantry alone for this laudable purpose. This Memorial was erected by Mr. Smith, after a design by Mr. Hamilton, with stone of an excellent and durable nature from the Duke of Sutherland's Quarry, at Red Lake, which his Grace kindly condescended to give for the occasion. The base of the Obelisk is shaped in the form of steps, with large corner solid square stones, upon which are placed recumbent—Wolves (the crest of the Noble Family.) The Obelisk is of the form of the pyramid of Heliopolis, and the whole erection is of the height of 70 feet, forming a conspicuous feature in the county. Upon an entablature, on the base of the column, is the following just eulogium:—

“ To the Memory  
of

George Granville Leveson Gower, K. G.  
First Duke of Sutherland,  
The most Just and Generous of Landlords,  
This Monument is erected

By the Occupiers of his Grace's Shropshire Farms, As a public testimony that he went down to his Grace with the Blessings of his Tenants, and left behind him upon his Estates the best Inheritance which a Gentleman of England can bequeath to his Son, men ready to stand by his HOUSE, Heart and Hand.”

Under the active and unremitting attention of Richard Mountford, Esq., the Chairman, and the other Members of the Committee of Subscribers, consisting of some of his Grace's principal Tenantry, this MEMORIAL was erected and completely finished at an expence within the amount of the subscriptions; and the Committee determined to apply the surplus of the subscriptions to present Mr. FISHER with a Silver Cup, in token of their estimation of his services as their Honorary Secretary. This Cup was designed by Messrs. Collis and Co. of Birmingham, (successors to Sir Edward Thomason,) and is emblematical on all sides of the Obelisk, containing on one side the above monumental eulogium, and on the obverse, the following inscription:—

“ This Cup is presented to Robert Fisher, Esquire, by the Committee who had the superintendance of the erection of the Sutherland Monument on Lilleshall Hill, as a testimony of their esteem, for the very kind, valuable, and gratuitous assistance rendered them by that gentleman, from the origin to the completion of the structure.

RICHD. MOUNTFORD, Chairman.

July 16th, 1836.

Mr. MOUNTFORD, (the Chairman) the Committee, and a party of friends, dined with Mr. Fisher on Friday last, by his request, to afford him an opportunity of expressing his obligation for this handsome Present, when the Chairman introduced the subject in a neat speech, expressive of the boundless virtues, munificence, and liberality of their late landlord, his Grace the late Duke of Sutherland, and called the attention of the company to the high feeling which such kindness had produced in the hearts of his Grace's Tenantry, who, in Shropshire, as well as in Sutherlandshire and Staffordshire, had vied with each other in erecting Lasting Memorials to the memory of their munificent Patron and best of Land-

lords; and the Chairman observed that it was matter of just pride to his Grace's Shropshire Tenantry that they had been enabled not only to effect this purpose without the aid of any other subscription, but also to exhibit their sense of their Honorary Secretary's able assistance, by presenting him with that Cup.

Mr. FISHER then expressed that he had felt so deep and lively an interest in the erection of the Sutherland Memorial, that no other stimulus had been wanting, and he must therefore attribute the origin of this handsome and unmerited gift to the personal friendship and kindness of the Chairman and other friends on the Committee, and not to any deserts of his own. On this very interesting subject he also observed that the gratitude he bore to the late Duke in his professional character, and the high respect and esteem in which his Grace's Memory was held by all who knew him, afforded sufficient inducements for much more arduous exertions than had been required from him, on this occasion, without reference to any idea of remuneration, which never entered his mind. Mr. Fisher then repeated his grateful thanks to the Chairman and other Members of the Committee, and drank their healths out of the Sutherland Cup.

Amongst other appropriate toasts:—

The memory of the late Duke of Sutherland, and the healths of the present Duke—of the Duchess Countess—of the Marquess of Stafford—of the Duchess of Sutherland—and of the Junior and other Branches of the Family,—and of James Loch, Esq., M.P. and William Lewis, Esq., his Grace's Auditor and Agent,—were severally drank out of the Cup, and the Company agreed that THE CUP gave a zest to the wine which the glass did not afford.

The health of the Members of the Committee, and also, particularly of the Rev. John Blunt, Vicar of Lilleshall, and Mr. Richard Duncalfe, who had been very active in settling and arranging the plans and inspecting the execution of the work, were severally drank with much glee; and the party separated at a late hour in mutual good harmony and satisfaction after some excellent songs, by Mr. Phillips and other Gentlemen of the party.—*Shrewsbury Chronicle*, Oct. 1.

NATIONAL EDUCATION BOARD FOR IRELAND.—AGRICULTURE.—During the last week, Mr. Carlisle, one of the Commissioners for education in Ireland, and who was also one of the chief commissioners of poor laws, for this country, has been on a visit to this city and its neighbourhood, and has been minutely inspecting most of the national schools in and about Limerick. In every instance, we understand, he found the establishments conducted in the most satisfactory manner, particularly the school under the superintendance of Lady Clare, at Kiskeaquirk, and that at Mountshannon, under the care of Lady Isabella Fitzgibbon. We have heard that the object of the commissioner's visit is to ascertain, by personal inspection, whether any of those charges brought against the schools have any foundation. Another object which Mr. Carlisle has in view is, to inquire into the practicability of establishing district model schools, in such situations as may be best suited for the purpose. These model schools are of three classes, one for infants, another for girls, and a third for boys. To this last it is intended to attach a small farm, where both master and scholar will be practically instructed in the most approved modes of agriculture, including the most

economical and best system of managing land. In this establishment masters will be thus trained, so as to blend with the acquirement of letters a sufficiently popular knowledge of that important art, on the successful acquirement of which may be made to depend the happiness and comfort of the great majority of the people. We understand Mr. Carlisle attended the only public meeting which took place during his visit, namely, the Breeders and Graziers' Society for the counties of Limerick, Clare, and Tipperary, which took place on Saturday, at Quinlivan's Hotel. At the meeting, which was composed of gentlemen from the surrounding counties, Mr. Carlisle shortly explained the views of the commissioners of education, particularly with reference to the attention intended to be devoted to agriculture, the announcement of which was received with the most unanimous approbation. The immediate introduction of this treasure is, we believe, only delayed till a communication can be had with the Chancellor of the Exchequer, on his return from London. In the meantime Mr. Carlisle has gone to the county of Clare, and will subsequently visit the county of Tipperary.—*Limerick Chronicle*.

### CURE FOR THE TAINT OR DECAY OF THE POTATOE.

(FROM THE DUMFRIES TIMES.)

The potatoe, hitherto the most healthy and vigorous growing plant under cultivation, has of late become the most precarious and uncertain; and the failure of this important crop has, for some years past, engrossed very general attention, and become the subject of much speculative discussion. The uncertainty of success in cultivating the potatoe, in consequence of the frequent failures, if no preventive can be found, must tend materially to diminish the quantity grown; and the want of so indispensable an article of food, taking the increased state of our population into view, cannot fail to be matter of serious consideration. Even famine may be the consequence at no distant day, and what can be done to prevent so awful a calamity, is of serious importance. The consideration of this subject has of late been urged on my mind, and doubtless on many others. I have written my remarks in the form of a treatise on the potatoe, touching shortly on its history and introduction into this country; its cultivation, nature, and botanical properties; its liability to decay, and its natural restoratives; its diseases, and the remedies and preventives of such; the method of obtaining and preserving seed, and rearing new kinds. From research into the nature of the potatoe and observation of its habits, I consider I am so far master of the cause and nature of the present disease, which has become so general all over the three kingdoms, as to presume, though it is rather a bold presumption, that I can in future completely prevent its ravages, and restore the cultivation of it to its wonted security, and insure a successful continuation of this most useful root. To obtain an object so desirable I have noted down a few simple rules drawn from nature, and which being easy and practicable I would recommend to be carefully observed. Much depends upon taking up at a certain time and properly securing the seed roots; and, as my observations on the nature of the disease cannot be before the public for some time, I hope, through the medium of the public papers, to give a short abridged extract from my work for the information of the

growers, and I would urge a very simple operation on their punctual observance, the attending to which will be of most material consequence—this is the proper securing the seed roots, as the season for doing so is now at hand. I will therefore say, let every cultivator take up just now such a quantity of seed as they intend to use in the ensuing Spring, from the greenest and latest planted portion of their crop, and have them properly secured. Potatoes intended for seed should never be fully ripened, but taken up when the skin will easily rub off in handling them, or as near that state as they possibly can be got—at all events before the stalks are decayed.

The operation of securing them is quite simple: prepare a pit in a dry situation, free from any possibility of retaining bottom water; sink it a foot deep, or as near so as the soil will admit of; the width may be three or four feet; the length depends on the quantity to be secured; then along the bottom spread not above five inches deep of the potatoes, then throw over them a stratum of well broken mould, and allow it to sink in among the potatoes; again lay on another five inches of potatoes, and more earth as formerly; and with a third cover of potatoes, finish with a gentle round, not a ridged top as is usual; then cover six or eight inches of loose mould over the whole, still allowing as much as possible to sink among the potatoes, until every crevice is filled, and the operation is finished. Use no straw on the top of the pit, as my object in keeping the pit flat, is that the winter rains may sink through the earth to keep the potatoes callier and fresh; but again, I say, take due care to have loose earth mixed among them, and by no means a thicker mass than fifteen inches, if less so much the better. Six or eight inches of closs covered on the top, rounded a little, will protect them from frost, and exclude the air. When bedded in earth, a very thin cover will preserve them.

The taking up of seed potatoes in a green state, and exposing them in the open air for a week or more before pitting them, to make them green or watery, is no new or rash theory, but has been long in general use by gardeners and extensive growers of early kinds for market, to preserve in a vigorous state these favourite kinds. I have not recommended the exposing them; it may either be done or not. I am trying it with some of my own. The reason why I recommend the early raising for the late kinds is this—they have of late in a great measure given up bearing seed-plums, as they are generally termed, and are in consequence become more early in their nature. When fully ripened, they lose their vegetable sap, and become so very dry and mealy, that the cutting them in spring, and exposing them for hours in a cart at the field to the dry air and hot sun, or covering them into hot and dry mould, often destroys, or renders their vegetation precarious. From this cause alone can an explanation be drawn, of the mysterious and unaccountable attacks of the disease, in taking a portion of one day's planting in the same field and same seed, while the remainder succeeds. The fact is this, the whole must be in a precarious state, but the part over-dried, or those planted at the hottest period of the day, only fail, the other, at a venture, holds out. Thus they will fail and grow alternately, and have done so in such a whimsical manner, as to set description almost at defiance. The aggravation of the failure of the present season, was owing to its being a very dry one at the time of planting, and goes far to prove the last supposition; but I have watched the disease since 1832, and found it uniform in this mode of attack. The kinds of potatoes now in general use, are all old and worn out; this I have proved

in my work, from reference to a number of undoubted evidences. New ones must be raised; but the old must be preserved, which is possible, until superseded by new and more vigorous. The operations to be observed at the planting season, are equally plain as those described, and no ingredient is required, but the ordinary elements of air, earth, and water, and with these I am confident I can anticipate the arch-destroyer, and frustrate its operations. I have little faith in the application of hot lime, as recommended; nor will planting the potatoes whole, be a permanent preventive. They have this season failed both in this country and in Ireland, when so planted, which still gives the disease a more formidable appearance, though, it is to be hoped, the evil is not insurmountable.

W. A.  
Castle-Douglas, 31st Sep., 1836.

## LETTERS ON AGRICULTURAL DISTRESS.

ADDRESSED TO THE FARMERS OF ENGLAND.

No. 1.

(To the Editor of the York Herald.)

SIR:—Allow me through the medium of your widely circulated journal, to offer a few remarks and observations, addressed to the farmers of this country, on the above important subject of agricultural distress, the existence of which, I believe, will be admitted by every sect and party.

### FARMERS OF ENGLAND!

I trust you will pardon the liberty I have taken, in thus presuming to come before you, to address you, on the important subject of agricultural distress, the existence of which I believe, will be admitted by every sect and party.

Another session of Parliament has drawn to a close, during several months of which a committee has been sitting to investigate this subject, which has terminated its labours, without coming to any conclusion as to any plan or measures, to be adopted to alleviate this distress! and contenting itself merely with presenting to the House a copy of the evidence and examination of the persons taken before it. This is another precious specimen of the way in which the time of the people's representatives is consumed—but let that pass.

Mr. S. Lefevre, the chairman of that committee, had drawn up a report, in which the whole state of the case was fairly laid down, but on the motion of the Tory, Sir James Graham, seconded by the Tory, the Marquis of Chandos, that great pretended friend of, and stickler for, the rights and interests of the farmer,—this report (though it has since come before the public) was suppressed, and not suffered to be presented.

Farmers of England! what think you was the reason of this? Mr. S. Lefevre, the chairman of the committee, who furnished the report, shall tell you in his own words, which I copy from his speech:—"He admitted that his report did not meet the views of the committee, but if the committee had allowed it, they could have shown that every paragraph had been established by the evidence." He further observed—"As to the interests of the farmer, I can assure the House that no one has a greater interest in maintaining them than I have; and the great evil has been, that the farmers never were told what was the true state of the case. They had too great a dependence upon

*Corn Laws.* Therefore I said, that they ought, in the first instance, to look to their landlords, and that when they had fairly and properly reduced their rents, the farmers must rely on the other sources possessed in common by all agriculturists, by which many are enjoying a state of comparative prosperity."

Farmers of England! this was the reason then, this was the secret, why a report, containing such sentiments and opinions, so inimical to the flagrant and unjust monopoly of the domineering and grasping landlords, should be annulled and rejected by those self-same tax makers, and consumers of the produce and profits of your industry.

By this time, and from this state of the case, you must be well aware how worse than vain it must be to expect relief from Parliament. The judges in this case, namely, the over-fed landlords and huge monopolisers, sit in judgment on their own interests. Do you suppose they will do any thing to injure those interests and privileges (even though they have obtained them at your expense,) by proposing, much less by passing any liberal plans or measures for your relief, which must necessarily reduce their extravagant incomes? Or can you for a moment expect them to voluntarily come forward and reduce their rents? If so, you must be utterly blind, and ignorant indeed—No, no. "Trust not for freedom to the Frank." Put not your confidence for redress and relief in the landlords. Be assured they will do nothing liberal unless compelled, but on the contrary exact, and take what they can get, even to the uttermost farthing.

But to this part of the subject I will return again, for the present I proceed to briefly consider what relief, were it ever so wishful and disposed, it is in the power of the Government to grant you.

There are only two measures of much importance for this purpose of affording you relief, which I have seen brought forward in Parliament. The one is the repeal of the malt tax.

Now before going any further into this question, I must remind you, that we have such a thing as a national debt, and moreover, that as we cannot pay off this debt, we are obliged to keep up the national credit by paying annually the interest of this debt.

Now to raise this interest, and carry on the affairs of Government, taxes are imposed (and here you have the origin and cause of taxation) upon almost every thing we can see, feel, or have any idea of, and amongst the rest, upon malt.

I have not confined myself to figures or numbers in my calculation; this is quite immaterial to the argument; I wish merely to establish this principle in as few words as possible, namely, that the amount of revenue derived from taxation, must be equal to, or above the amount of the interest of the debt.

This being the case, and an admitted fact, you will see at a glance that it is quite impracticable, nay completely impossible for any ministry to reduce taxation before having previously saved the amount, by the reduction of pensions, salaries, and places, or some other plans of economy or reform in the public expenditure. All other species of reducing taxation is a juggle, a kind of legerdemain, which has long been played off by our "hereditary Legislators," for the amusement and deception of the people. It is, in other words, the taking out of one pocket and putting it into another; or, the reducing one tax and adding the reduction to another.

Now suppose the amount of the malt tax to equal

four millions, and that it was repealed; of course there would be a deficit of four millions in the interest of the debt, which could not be raised but by one of the three following means, namely, 1st, To save the money by retrenchment and economy. 2nd, To lay four millions upon some existing tax or taxes. Or, 3dly, By the imposition of a property tax.

With regard to the first plan, ministers either have not the power or the will to save the sum by reducing the pension list, the salaries of their officers and public functionaries, the expenses of the court, the immense revenues and sees of the bishops, or by any other system of reform and retrenchment.

With respect to the second plan, were it practicable, it would be but a repetition of the old juggle, of shifting the saddle from one side to the other, so that, what you gained one way, you would lose the other, and thus be left in the same position; but putting this apart, there are no taxes on which the deficit occasioned by a repeal of the malt tax, could be laid, which are not already sufficiently onerous, and almost with difficulty levied and obtained; so that this plan will not answer.

It is not my intention to enter into any lengthened observations on the third plan of raising the deficit, namely, by the imposition of a property tax; but I cannot help remarking that I consider there is no necessity for it, in the present state and prospects of the country, and that in no case can it be justified, save in a time of war, or a state of great public pressure of affairs, much less, therefore, in a time of profound peace; and finally, that it would be manifestly and evidently unjust and indefensible in a time like the present, when the commerce and manufactures of the country are in a most flourishing condition, and every class, and interest, *save yours*, in a state of the most unexampled prosperity.

I do not require to be told, for I know full well, that it is true, that you, and all those persons forming what is called the middle class or masses of society, pay a far greater ratio of taxes, and bear far heavier state burdens than your landlords and peers; and that they enjoy many exemptions, and privileges, and immunities, which you are debarred of, and this from their having had the *laws of their own making*; I also freely admit, that this is highly unjust and improper, and that the greater the property, the greater ought to be the rate of taxation it should pay for its protection; and that, therefore, your landlords, peers, bishops, parsons, and gentry, alias, the upper ranks of society, should contribute a far greater share of taxes to the maintenance of the state, than they do at present; yet admitting all this, you will perceive that it is quite different and distinct from a property tax, which I repeat and maintain ought not to be, and cannot justly be laid on the nation in its present flourishing state, and that for your sole benefit.

Now, setting aside entirely the question, whether a repeal of the malt tax would be of any benefit to you or not, you must perceive from what is here advanced, that it is inexpedient, if not impossible for the government to repeal it.

But there is another plan of relief which has been much lauded, and boasted of by the friends and partisans of Mr. E. S. Cayley, and which that gentleman brought forward in the House of Commons, on the first of June, 1835, and was defeated; and here I allude to the currency question.

Now, as this gentleman considers himself, and no doubt wishes to be considered, a friend to agri-

culture, and consequently a friend to your interests, and moreover gives a consistent vote on all questions, having for their object the reformation of abuses, and the improvement of the country, I shall not for these reasons say anything ungenerous of him in this place, or anything calculated to injure him in your estimation.

One thing, however, I must remark, (and it is charitable so to think) that he is certainly a very mistaken man in his ideas on the currency question.

I shall not impugn his motives in seeking to depreciate the present standard of value, by the substitution of a silver standard, or of a silver and gold standard conjoined; it shall be sufficient for me to state the result and consequences of such a measure, as they were proved and pointed out in the debate on the question, and to which I refer you, Farmers of England, for further information.

In this debate it was distinctly proved that there was no connection between the state of the currency and the fall in the price of wheat, as it had happened almost invariably that as the quantity of circulating medium had increased in the country, the price of wheat instead of rising, had fallen. It was also proved that the effect of depreciating the standard would very little, if at all, benefit you, but on the contrary, injure and lower the prices of labour of your servants—that the public creditor would be robbed of his just claims which would be received by the public debtor—and that it would bring about another panic and general bankruptcy in the country. It was remarked by Sir Robert Peel, that “all that the agriculturist could gain” (by depreciating the standard) “would be, in what he could save in defrauding the public creditor, and from pinching his impoverished labourer.”

Farmers of England! after these statements, I flatter myself I need not say any more to point out to you how fallacious would be your hopes of obtaining relief from such a measure; but even admitting that you could receive from it all the relief you stand in need of; poor, and distressed, and suffering under the pressure of difficulties as you may be, and no doubt are, whatever may be Mr. Cayley's opinion of you, I shall not, I cannot, for a moment, think that you would ever be so base, pitiful, not to say dishonest, as to wish even to benefit yourselves by the robbery of any other classes of the community, or at the expense of the public faith, and the ruin of the national credit.

The exactions of your rack-renting landlords, the plunderings of your tithe-grasping parsons, the operations and pressure of bad laws and taxes, joined with the natural and unavoidable fluctuations of crops and seasons, have rendered, and may render you for some time yet, in depressed circumstances, yet remember, though these causes may keep you *poor*, neither they, nor any other power on earth, can make you dishonest. No! Farmers of England! Descendants of those noble yeomen whose indomitable courage gained the glorious victories of Cressy and Agincourt! and carried the fame of their country over the civilized globe—you would indeed disgrace your brave ancestors by accepting of relief at the expense of honour! Trust not then for that relief by any depreciation of the standard of value of the realm.

It is, no doubt, true that you suffered great inconvenience and distress, along with the other classes of society, from the withdrawal of the one pound notes from circulation; but you must by this time be well aware that this was a measure of



sound and strict justice, to prevent the recurrence of those panics which had before afflicted the country, from the circulation of a fictitious medium in quantities so very much beyond the real capital at stake, and to place upon a firm and substantial basis, the monetary transactions and fiscal of the nation!

After these statements, it is quite unnecessary for me again to repeat that it is in vain for you to expect relief from the legislature. In fact, Lord John Russell expressly declared this in the House of Commons, on the 21st of July last, in the following words taken from his speech:—

“He admitted, as he must do, that distress had prevailed for some years among the occupiers of the land, a distress which he had always lamented, and which he hoped was now diminishing—it was not to be relieved by a change in the currency—that it was not to be relieved by the repeal of the malt tax—that it was not to be relieved by any specific measure the parliament could apply to the evil.”

Such being the case, (if you, Mr. Editor, will be kind enough to grant me the space of your valuable columns) I shall proceed in my next letter, to consider the means remaining of obtaining relief to agricultural distress, till which time

I am your obedient servant,  
*Malton, Oct, 1836.* AGRICOLA.

#### FROM A CORRESPONDENT IN SUFFOLK.

At Oakley Park, on Wednesday the 5th of Oct., Major General Sir Edward and Lady Kerrison, gave their annual dinner and entertainment to their Cottage Garden Tenants, altogether about 200. The schools belonging to the parishes in which their estate is situated also assembled to partake of their hospitality. The gentlemen, clergy and occupiers of land in the several surrounding parishes were also invited to a luncheon, and to witness the assemblage of so numerous a portion of the peasantry of the country, and see their own labourers receive the prizes which were awarded them. The gardens were visited by competent judges, and most satisfactory results reported of the immense produce grown on the land, and appearance of improved condition of the poor cottager, so as to render him comfortable and happy, and tend to his becoming a more useful member of society. The system adopted here, may be said in all points, and particularly the quantity of land, quality, &c. to surpass in intrinsic worth, others of the kind, and must certainly be more valuable to all parties than might, without consideration, be conceived, as nothing could show more satisfactorily the productiveness of the soil in that neighbourhood when carefully cultivated.

The day proved very propitious, which enabled the cottagers and a large congregation to assemble at Hoxne Church at half-past twelve o'clock. After the usual service of prayers an appropriate sermon was preached by the Rev. Lord Bayning, which rivetted the attention of all present, and could not fail to raise in the heart of many a hoary headed cottager a glow of love and adoration to him who alone stands supremely good, the great Governor of the Universe. It must not be omitted that the sweet tone of a new organ which was presented by Sir Edward Kerrison, Bart., to the Church, and then played for the first time, and aided by a hymn prepared for the occasion, excited much admiration,

while the skill of the organist, assisted by the young voices of the children joining in hymns and chants, added much to the religious solemnity of the occasion. After service a general meeting took place at the East Lodge, about half a mile from Oakley Park, whence they proceeded to partake of an excellent dinner prepared for them, headed by a band of music playing appropriate airs, and so numerous were the persons, that men, women, and children, formed a line in continuity nearly to the Mansion. The appearance of the train in passing the Serpentine River and walks in the Grove on their approach to the house, was so strikingly affecting, that it would be difficult to give a perfect description of it. After their arrival, grace was said by the Rev. Lord Bayning, they all sat down to regale themselves in the most orderly manner, and excited the admiration of the numerous party which had arrived to join in the pleasure and interesting scene of the day.

Too much cannot be said in favour of the scheme so warmly supported by that kind hearted liberal landlord and friend to the working classes, both in money and personal attention.

#### THE TITHE BILL.

TO THE EDITOR OF THE HEREFORD TIMES.

SIR,—Having given to your readers, rather amply, my opinion of the Tithe Commutation Bill, during its passage through the House of Commons, and that, if passed into a law, it would prove highly injurious to the agricultural interest; and ruinous, if the compulsory clause should ever be enforced, to the Established Church—I have waited till the present time, though my opinions remain unchanged, under the hope of reading in your paper those of others upon it.

Some very important, and in my view, very absurd and imperious clauses, have been subsequently added to the Bill. By one of these, every clergyman who has not enforced his claim of tithes to the amount of four-fifths of their value, and I am happy to say, that there are many who, (from the best motives, and from feeling the iniquity of the Tithe Laws, which take away the tenth produce of the soil, without making any allowance for the increased expense of culture, through taxation and other causes) have not done so, will, with their successors, for ever be robbed of a portion; and, in cases within my own knowledge, of a very considerable portion of their just dues; and I do not doubt, but that a good many of those pious and conscientious persons who have so warmly defended the rights of the Church, will be found quite as willing as others to rob it, under the circumstances above-mentioned. No clergyman, with any regard to justice, can, in my opinion, permit his tithes to be commuted upon such iniquitous terms; and I hope that the conscientious and excellent men above-mentioned, who, from the best motives, have not fully enforced their claims, will feel that, though they have had a right to relinquish a portion of their own temporary just claims, they have no right to give away the property of their successors.

By another clause, the clergy are given the power to demand a higher payment for all ground which shall hereafter be employed as hop ground, orchard, or market garden. Now, the hop-grower who purchases his poles, as hop growers generally do, already pays a heavy tax to the Church, in the price of tithe poles; and much of the ground now growing hops in Here-

fordshire is of very little value to the tithe-owner, under any other mode of culture; and such generally yields but little profit to the farmer.

The produce of an orchard, during many years after being planted, is wholly insufficient to repay the expenses of protecting the trees. At what period of the growth of such trees is the clergyman to make his demand for a larger payment? During the progressive decay of an orchard, and when, comparatively, few of the trees remain, and those but little productive, is the ground still to pay, as an orchard, to the clergyman of the parish?

Most of the ground round towns is now employed as a pasture for riding horses; from such nothing whatever is due to the tithe-owner, and from such ground the owner obtains, on this account, a very high rent. The chief object of the Tithe Commutation Bill was to enable every occupier of the soil to cultivate it to the greatest advantage to himself and to the public, and to put an end to the ruinous influence of quarrels between the clergy and their parishioners. Under a just and proper mode of commutation, all ground would be made to pay according to its intrinsic value to the title-owner, and most of the soil now employed as a pasture, near towns, for riding-horses, might be cultivated as market-garden ground, with much advantage to the inhabitants of such towns, and might find employment, as the market gardens round London do, to numerous women, and feeble old men. A tax upon hop grounds and market gardens must necessarily fall wholly upon the consumers of beer and potatoes, and other vegetables, and, of course, chiefly upon the labouring classes of society; and those classes are now sufficiently enlightened to know this, and to know for whose benefit they are made to pay a higher price for the common necessaries of life.

The Bill ought, I conceive, to have defined what a market garden is. Does ground cease to be a garden when it is partially tilled by means of a plough? The market gardeners, with many of whom my office of president of the Horticultural Society of London has caused me to be acquainted, have latterly complained to me, that they sustain very great injury by the circumstance of a very large portion of the produce of the gardens of the nobility and other affluent classes being sold in the market, as is well known. Is it equitable, that the ground of the poor laborious market gardener should be subject to a heavy tax, from the operation of which the future gardens of the higher and more opulent classes of society will be wholly exempted?

I ask the clergy what will be the effect of their being placed to act as spies respecting the culture of the soil in their parishes, and of their enforcing the conditions of the clauses above-mentioned? and I will tell them that it will cause the churches to be deserted, or, perhaps, what is still worse, occupied solely by a couple of hired old women, as has already occurred in too many cases; and they will be deprived of all power of annoying those by whom they will be insulted.

It will, perhaps, be said that the landowner only, and not the farmer, will have to pay the clergy; but it will be found, that the landlord will not indemnify the farmer from the extortions of the clergy; and I will confidently tell the farmer, that whenever the clergyman extorts more than his due, he (the farmer) will be, to a large extent, the sufferer, in almost all cases; and if he, so far approves the conduct of the clergyman, that he, with proper feelings, take the holy sacrament from his hands, and can attend, with proper feelings, the church, he ought not to complain, if he, in part, supports the clergyman of his parish. But

the landowners and the farmers will be led by their interests, aye, and by their moral and religious feelings, also, to join in causing the legislature to award to the clergy their just dues only; for it is but too well known, that the public dissatisfaction with the clergy, arising (I am happy to admit) from the misconduct of a comparatively few, has caused the enormous secession from the Established Church, and the decay of the established religion of the country.

I may be asked why Lord John Russell and his party did not cause a better bill to be passed. I have put the question to many of his party, and the answer which I have always received, has been, that they could not. The landowners and farmers appeared whilst the clauses of the Bill were discussing, to look on with supine indifference. I had frequent communications with Sir Robert Price, who, I can confidently say, did his duty in opposing the injurious clauses of the bill; but of what value could his exertions prove, when his opponents could tell him, that amongst all his constituents, he could not name two, who had expressed any degree of disapprobation of the bill?

The claims of the Church upon my property are small, and the position of my titheable property, and other circumstances, give me the power to resist oppression: and, if I chose, to oppress. I would, however, gladly commute, upon equitable and beneficial terms, to the Church—but I am wholly at a loss how to commute under the conditions of the bill. Others with whom I have conversed, have expressed the same feelings, and have agreed with me in thinking, that without enforcing the compulsory clause, the bill will ever remain, to a very great extent, a dead letter; and if our legislators would proceed to enforce the compulsory clause, they will, in my opinion, prove themselves much better qualified to sit in an infant school, or in a cell in bedlam, than in either House of Parliament.

I propose, in your next week's paper, to address a few remarks to my countrymen, upon the iniquitous operation of the Corn Rent, if adopted, by the possessors and cultivators of Herefordshire.

I remain, Sir, your obedient servant,

T. A. KNIGHT.

### LANCASTER AGRICULTURAL SOCIETY.

On Monday, October 10, the Lancaster Agricultural Society held its annual meeting, and we are happy to say it proved in all respects one of the most satisfactory that has occurred for some years.

With regard to the show of cattle, we have the authority of some of the most experienced practical men in the district for saying that it was highly creditable to the society and far superior to any that has preceded it for some time. We heard it observed that there was nothing shown that could fairly be called indifferent, and that the many who, of course, could not get prizes, well deserved them. It was really gratifying to see so much good servicable stock exhibited, bearing, as it did, sure testimony to the efficiency of the society, and of the improvement of our local agriculture in one of its most important branches. Both in quantity and quality the stock shown was such as we have not been in the habit of witnessing; and in respect to horses, the exhibition afforded the highest satisfaction.

About four o'clock, a large party assembled at dinner, at Pritt's, King's Arms. The President, John Bolden, Esq., of Hylning, presided, and he was supported by J. Wilson Patten, Esq., M.P. for the

Northern Division, T. Greene, Esq., M.P. for the borough of Lancaster, E. Hornby, Esq., J. Bond, Esq., R. Atkinson, Esq., Rev. J. S. Bolden, J. C. Satterthwaite, Esq., T. H. Bateman, Esq., J. Bolden, Esq., &c. &c. The Vice-Chair was occupied by R. Hinde, Esq., who was supported by T. Thompson, Esq., S. E. Bolden, Esq., T. Redmayne, Esq., J. M. Arthington, Esq., E. Bond, Esq., H. R. Ford, Esq., J. Ford, Esq., F. Simpson, Esq., &c. &c.

The customary toasts having been drank,

The CHAIRMAN, in rising to propose the usual toast of success and perpetuity to the Society, expressed himself happy to see such a meeting as that before him, and explained that, owing to the unfavourable state of the weather and consequent backwardness of the season, it was considered desirable to put off the annual meeting till the present period. He hoped the arrangement had not proved inconvenient to any member of the Society, and he was happy to find by the full attendance of that day, that in other respects they had no reason to regret the postponement. With regard to the exhibition of that day, he was precluded from saying anything of the stock, as he himself was a competitor, but he might go so far as to say, that the show of horses and sheep was such as reflected no discredit upon the agriculture of the district, and though his friend Mr. Hornby had walked over with his pig, he would say, a finer specimen could not be shown. On the subject of agriculture generally, *he had last year cautioned the farmers not to be deluded with the notion that it was in the power of Parliament to afford any relief; and it gave him great satisfaction to see that Lord Stanley not only took the same view, but explained it in much better language than he was master of at the Liverpool meeting. His lordship also pursued the same line of argument in Parliament, and was ably supported by his hon. friends on his right and on his left, and with still higher effect by Sir Robert Peel. He thought the result of the enquiry that had taken place must convince all how chimerical was the idea of obtaining relief by legislative enactment, and that, for the best of all reasons—Parliament had not the power to grant it. They all knew that the most absurd notions were entertained on the subject, many believing that Parliament could regulate prices and profit, and rent into the bargain. He need not say that Parliament could have nothing to do with rents,—(hear,) and in regard to prices, it was astonishing to hear what strange notions some farmers entertained. Any person who had paid any attention to political economy must know that prices were wholly governed by supply and demand. Then, with regard to the more important question of profit, it was clear that Parliament could have nothing to do with that: since it depended entirely on the skill, prudence, and industry of the farmer. There had arisen, however, an engine much more powerful than Parliament in its influence on agriculture. He meant the power of steam, which was bringing the produce of the most distant places into one general market: and, under all these circumstances, he hoped the farmers would see that the parliamentary panacea for agricultural distress was all delusion. (Hear.) It would be observed, he spoke strongly on the matter, but, occupying the situation he did, he felt it his duty to make very particular enquiries into the opinions of farmers far and near, and he regretted to say, the most strange and absurd notions prevailed. He was sorry thus to see John Bull propagating the delusion, for he was sure no class would suffer more deeply from it than the farmers themselves. He trusted, however, from the favourable meeting of that day, and from what he knew of the feeling of the country, that the*

delusion was passing away; and he thought, upon the whole, they were justified in looking forward to better times and better circumstances. (Hear.) They all felt the unfortunate season just passed over in some degree, but he believed there was one description of crop that had suffered more than all the others, and that was turnips. All who heard him must be aware of the advantage of the turnip to the land, and that, in fact, turnip culture was the main stay of successful farming—that was, upon lands favourable to its cultivation. There was one subject that came nearer home, on which he would say a few words, which, he trusted, would be taken in good part. They were all aware of the benefit that accrued in general from ploughing matches. At the last meeting, there was one held on the northern edge of this town, and though the land staked out was unfavourable, he believed the judges considered the workmanship to be good; but it was a source of observation and regret, that on that occasion there was not one competitor south of the Lune. What was the reason he did not know. He believed the iron plough with two horses had not yet been introduced, and that they ploughed with two, three, four, or six horses, and sometimes with two drivers. It might be requisite in some soils, but generally speaking, if farmers had a spark of worldly wisdom left, they would not let such things be done on their land. He knew that in the south, they were proud, and justly proud of their horses, but he could wish to see them employ their excellent breed more economically. He would not detain the meeting longer, but propose, Success to the Lancaster Agricultural Society, with three times three.

The toast was drank with due honours.

Mr. WILSON PATTEN rose to propose the health of the President. The Lancaster Agricultural Society, he observed, was very fortunate in having its interests so efficiently guarded, and also in having the opportunity of receiving the advice that had that day been given from the chair. In that advice and the opinions declared by his hon. friend the President, he fully concurred. He had expressed elsewhere, his belief, that it was *not to Parliament but themselves, the agriculturists must look for relief*. He desired that things should be left to take their own course. For reduction of taxation he had always voted, not because he thought it could afford any great relief to the farmer, but because relief in any degree was what he sought. He believed, however, that it was following the advice of practical men like his friend the President, that the surest remedy was to be found, and to show their estimation of such advice, he proposed that they drink the President's health with three times three.—(Applause.)

The toast was cordially drank, amid the prescribed number of cheers.

The PRESIDENT said, he was most happy to be able to meet the Society to return his thanks, for the weather not content with attacking agriculture in general, had assailed their unfortunate President and laid him up in a fit of rheumatism, which rendered it doubtful whether he could attend the meeting. In alluding to the subject of turnips, he forgot one point, and that was to express a hope that some turnip growers present would be so kind as to give some account of the black caterpillar. There was also the disease that had attacked the potato, which was becoming worse and worse, and excited a good deal of alarm in the minds of many, for after all the experiments that had been resorted to, they were all as much in the dark as ever.

The PRESIDENT proposed the health of Mr. Wilson

Patten and Lord Stanley, with three times three.—*(Applause.)*

The toast was drunk with loud cheers.

Mr. WILSON PATTEN returned thanks. He could answer as well for his noble colleague as himself, that they were both resolved to support the interests of agriculture. He hoped he should ever be found in his place, ready to give his advice, and what was more important, his vote in favour of their interests. In whatever situation he should be placed, he should do his best to promote agriculture in general, and this Society in particular.—*(Applause.)*

The PRESIDENT begged to propose the health of Mr. Greene, in conjunction with his hon. colleague, Mr. Stewart.

Mr. GREENE begged to return his best thanks for himself and his hon. colleague, who, he was sure, would feel highly gratified, like himself, at having his health drunk by such a company as was then assembled. If he (Mr. Greene) had anything to regret, it was that there was not a larger attendance of farmers; because, nothing could be more beneficial to both farmer and landlord, than that all should be occasionally brought together and join in social intercourse. By staying away, they deprived themselves of the benefit of hearing the observations that had fallen from their worthy President that day, and which he was sure could not be heard without benefitting the hearer. He the more particularly dwelt on the subject, because he had lately attended the meeting at Burton, where so many farmers were assembled. It was to him most gratifying to witness all classes so meeting together, and bringing to bear their collective information; and if means could be devised for bringing the working farmers of the district more together, he was sure the Society would be greatly benefitted. With respect to his hon. colleague, he was most friendly to agriculture. All his early associations connected him with the soil, and though his present occupations led him to other pursuits, he knew he took a great interest in agricultural affairs, and in the welfare of this Society in particular.—*(Applause.)*

The PRESIDENT.—Mr. Ellison, can you tell what is most likely to check the depredations of the caterpillar on the turnips?

Mr. ELLISON.—I really cannot.

The PRESIDENT.—The question to consider was, how it was to be destroyed. He believed it was not so destructive as was represented, for he knew when they had eaten off the leaf the turnip had recovered, though it certainly did not arrive at the perfection it otherwise would.

Mr. THOMAS JACKSON.—I believe you are quite right Sir.

Mr. ELLISON begged to differ both from the President and his friend Mr. Jackson. He thought both wrong; for he had seen a field of five acres completely destroyed. In his own case also, where he was last year obliged to substitute turnips for the trifolium incarnatum, the crop was covered with black caterpillars. He ordered his men to cut birch boughs, and with these they whipped off quantities, and other men were employed the while in treading the insects down. By that means he got about half a crop. His brother had tried salt but it would not do. One night all Sedgewick rose and whipped off the caterpillars, but next day they were there again. At Merley Moss, the case he first alluded to, the leaves were entirely eaten off, but with his brother's they were only perforated. His white turnips were not attacked, the injury they received being chiefly occasioned by the weather.

The CHAIRMAN stated that in returning from Ken-

dal to his own house in August last, and when it was pouring with rain, he was surprised to see some people taking casks of water into a turnip field at Levens, and asking for an explanation, he was told that they were "poisoning the turnips." He believed it was a preparation of arsenic they were using, and he wished to know if it had been successful.

Mr. ELLISON.—He believed it did no good. The crops were worse than any other. With respect to potatoes, he thought he had last year got a pure seed, from which he might transplant without fear. It was procured from a district where the disease was not known. He cut the seed as usual, but got only half a crop. He then resolved to plant whole and gave orders to that effect, but he found only a portion had been left whole, the Hind having declared it to be complete waste. The result was that in the rows that were planted with cut seed, they were obliged to break the ground and sow Swedish turnips, but where the rows were planted whole the crop was quite good. He believed the fact to be that there was an insect which perforated the cut part of the potato and devoured all its juice, but which was repelled by the nauseous rind of the whole potato. He was also of opinion that by planting upon manure in the spring of the year animalculæ were brought to life and that these afterwards preyed upon the vegetation. There was another advantage in planting whole—they might plant them eighteen inches apart.

The PRESIDENT.—What was the produce?—that was, the difference between the produce of a potatoe planted whole and a potatoe cut into four or five sets?

Mr. ELLISON.—He was disposed to think that the produce was equal on a thriving potatoe soil.

Mr. WILSON PATTEN asked Mr. Ellison if he had ever tried one against the other?

Mr. ELLISON said he had. He had found years ago, and every farmer would bear him out in it, that the produce was greater where room was given than when planted full.

Mr. HORNBY observed that on a small scale he could confirm Mr. Ellison's statement. He had planted some Flat Reds and Red Kidnies, part of each whole, and part cut. In the latter case, both came up very badly indeed, whilst the rows set whole looked as flourishing as plants could, and he had no doubt they would turn out very good.

Mr. THOMAS JACKSON confirmed these statements. He had planted a quantity of the small pig potatoe whole, but finding his seed run short a few rows were planted cut. The whole sets came up as fine a crop as he ever saw, but the cut ones did not produce half a crop.

The PRESIDENT observed that what they had heard upon this important subject shewed how much his Hon. Friend Mr. Greene was in the right when he alluded to the advantage which farmers would experience by attending such meetings. He hoped however what had transpired would go abroad in another way.

Mr. WILSON PATTEN in allusion to what had just fallen from the chair, begged to propose the health of the worthy gentleman who had presided over the recent meeting of a neighbouring society, where of a company comprising nearly 100 persons, the chief part were farmers. It was indeed, an incalculable advantage to farmers to be present at these meetings, and bear what was said.

The PRESIDENT said he had heard much of the powers of steam, and he would mention that a few weeks ago he heard some of the engineers on the Darlington railway say the time would come when they would not have farms advertised in the usual

way, but that steam farms of large extent would be put up for letting. Whether it was to be so or not he could not tell, but he was assured that however the tillers of the soil were destined to cultivate their land they would do it in a spirit worthy the character of a British farmer. He begged to give the farmers of England, with three times three.

The toast was drank with due honours.

The premiums were then read by the Secretary.

Premium the first, a silver cup or five sovereigns, to the occupier of a farm of not less than forty acres who shall have made the greatest improvement in cultivation, &c.—Mr. Luke Ellison, of Sedgwick. There were four competitors.

A silver cup or three sovereigns, for the best crop of turnips—to Mr. John Scott, of Sedgwick. There were five competitors for this prize.

A silver cup or five sovereigns, for the best general Stock of Store Cattle—to Mr. Ellison, Sizergh.

The reading of the premiums was then resumed.

For the best Bull, a piece of plate or five sovereigns—Mr. Wm. Ellison.

For the best Cow, in milk or calf, or best three year Heifer, a piece of plate or three sovereigns—Mr. Bolden.

For the best two year old Heifer, a piece of plate or three sovereigns—Mr. Thos. Jackson.

For the best Ram, three sovereigns—Mr. Thos. Jackson.

For the best three shearing Gimmers, three sovereigns—Mr. Jno. Bland.

The Secretary then read the Sweepstakes:—

Long-horned Cow—Mr. Wilson Patten and Mr. T. R. W. France—won by the former.

Short-horned Cow—Mr. Bolden and Mr. Pritt—won by the former.

Cow of any breed—Mr. Wilson Patten, Mr. Greene, Mr. Atkinson, Mr. Bolden, and Mr. Pritt—won by Mr. Bolden.

Short-horned heifer—Mr. Pritt, and Mr. Bolden—won by the latter.

Brood Mare—Mr. Wilson Patten, Mr. P. Hesketh Fleetwood, and Mr. H. R. Ford—won by the latter.

Colt or Filly—Mr. Wilson Patten, Mr. P. Hesketh Fleetwood, and Mr. E. G. Hornby—won by the latter.

Colt or Filly (two years old)—Mr. Wilson Patten, Mr. Greene, Mr. F. Rawsthorne, Mr. Jno. Bateson, and Mr. W. Cottam—won by Mr. Rawsthorne.

Colt or Filly (one year old)—Mr. E. Hornby, and Mr. Aldren—won by the former.

Ram—Mr. Wilson France, Mr. Pritt, Mr. Bland, and Mr. Jno. Bateson,—won by the last named.

Ram (one shear)—Mr. Wilson France—no competitor.

Fat Ewe—Mr. Robt. Winder. No competitor.

Ewe—Mr. Wilson France, Mr. Ford, and Mr. R. Winder—won by Mr. Winder.

Ewe (one shear)—Mr. Bland, and Mr. Wilson France—won by the former.

Ewe Lamb—Mr. Wilson France, Mr. Pritt, Mr. Bland, and Mr. Winder—won by Mr. Bland.

Sow—Mr. P. Hesketh Fleetwood, Mr. Hornby, and Mr. Bolden—won by Mr. Hornby.

Turnip—Mr. W. Ellison.

The President proposed the health of the Judges of Stock—Mr. Scotson, of Toxteth-park; Mr. Dodds, of Standish, and Mr. Almond, of the same place.

The President took the opportunity of saying, that in consequence of the excellent show of young horses that day, it had occurred to him whether it would not be desirable to establish premiums for colts and fillies. If any gentleman objected, or the

funds would not admit of the additional premiums, it could be taken into consideration at the next meeting. It had suggested itself to him in consequence of the show that day, which did the district great credit.

The health of the judges of Stock was drank, with three times three.

Mr. Dodds returned thanks. With regard to the show, the stock was for the greater part above mediocrity. The sheep were not what he admired. He considered the fleeces too light, and it was a question whether the breeding a fine quality did not weaken the constitution of the animal, as well as produce a diminished quantity. With respect to the horses, there were some colts shown of which he should be glad to see more in the county. Altogether, it was a very fair show. Mr. Dodds then made some practical observations on the breeding of horned cattle, and then alluded to the subject of potatoes. He said, he could bear out Mr. Ellison and Mr. Jackson, in what they had stated, both with regard to cutting the seed and planting thick. He would advise farmers to give up thick planting. There was a case that had fallen under his observation, that could not be so easily accounted for. He had procured a lot of seed, and divided it amongst three of his friends. In two of the three lots the produce was ample, whilst the third proved a total failure.

Mr. Ellison thought this latter case might be accounted for, Mr. Dodds had not told the meeting whether all the lots had been planted at the same time of the day. He recollected once planting on warm manure in the morning, and resuming the work in the afternoon after the manure had been cooled by a heavy thunder shower; with the seed planted in the afternoon he was successful, but that planted in the morning was widely different. His conviction was, that the warmth of the manure gave existence to the animalculæ in it, and which in time fed on the plants.

Mr. Dodds said, he had heard Mr. Ellison maintain his doctrine of animalculæ before; but he remembered that when he was a boy, they planted potatoes in any way; and horse dung was generally used. Therefore, Mr. Ellison's doctrine amounted to nothing. At Wigan they tried all sorts of dung.

Mr. Ellison—But were they all planted whole?

Mr. Dodds—That did not matter.

Mr. Ellison said, it was true that in their younger days they planted as they pleased, but at that time the land was not so well drained, and the winters were more severe. He believed that it was owing to the open winters of late years that the animalculæ increased: the frost of winter being necessary to destroy the insects.

The health of the Judges of the Crops—Mr. Wm. Smith, of the Hole of Ellet; Mr. John Bateson, of Bolton-Sand-side, and Mr. Thomas Corbishley, of Thurnham, was then drank with three times three.

The President, in proposing the health of Richard Atkinson, Esq., of Ellet Grange, said the Society had long experienced great pleasure from the manner in which that gentleman had filled the office of Vice-President, and hoped he would live many happy years to repeat his kind offices.

Mr. Atkinson returned thanks.

Mr. Ellison proposed the health of Mr. Samuel Hinde, and the toast was drank with honours.

The President, in proposing the health of the Secretary, said no eulogium of his could do justice to the merits of Mr. Binns. He begged to give the health of their most excellent Secretary and Treasurer, and their sincere thanks to him for his ser-

vices during the long period that he had executed the duties of the office.

Mr. BINNS returned thanks. He had only to say for himself that he felt highly gratified to have been selected as the Secretary of the society for so many years. He considered agriculture of so great importance, that it was impossible for any man to do too much in its behalf, and if he had given his mite of assistance, he had only done his duty. With reference to what had been said by Mr. Greene, it was, indeed, much to be lamented, that farmers hung back from these meetings, for it was clear to him that it was the interest of all to support such societies as this. They ought to be encouraged not only by the farmer, but by every other class, since it was by improved cultivation the same area of soil could be made to produce a larger proportion of food, and the public would be able to purchase at a cheaper rate. To the manufacturer, in particular, with whom wages was so material an item of expenditure, he thought the promotion of agricultural improvement was a matter of great importance. With that impression, he wondered that more of the manufacturers in the district did not join the society. He would take the opportunity of suggesting the expediency of having a small library attached to the society. About 20/ would be quite enough to purchase one that would answer every purpose. He begged to return thanks to the meeting for drinking his health.

Mr. ELLISON, in reference to what Mr. Binns had said on the subject of grasses, wished to say a few words. He had been in shops in different places, and he generally found that what was sold for rye-grass seeds, was mixed up with common couch-grass. With that seed the farmer sowed his land, and however clean the land may have been, he would undo all by sowing this seed. He ought to sow only the pure rye-grass seeds raised from his own seeds. He was confident that half the dirty land was owing to the farmer purchasing these seeds. It was said the farmer ought to be a chemist. He did not think that, but he was sure he ought to be a botanist, and then he would keep his seeds more pure.

Mr. WILSON PATTEN proposed the health of Mr. Bond, and prosperity to the town of Lancaster, with three times three.

Mr. BOND returned thanks.

The PRESIDENT then alluded to the subjects for discussion, and said he should be glad to hear the opinion of any gentleman.

The first subject was on the increase of grain, stock, and manure, by cultivating green crops, and by stall feeding, and on the merits and comparison of different green crops.

The PRESIDENT having called upon some of the company for their remarks upon the first subject fixed for discussion, Mr. Binns stated that he had waited for Mr. Ellison or some other gentleman to express their opinion, but as the subject appeared likely to be lost sight of he wished to say a few words on the subject, believing at the same time that much benefit might arise from having subjects for discussion fixed beforehand, and noted in the lists, that the members might be prepared to give their sentiments fully. It was well known that clover, tares, turnips, and other green crops, if well managed were fertilizers of the land, in part it is supposed from their receiving a considerable portion of their nourishment from the atmosphere. It is also well known that the crops will fail if the same species of plant is sown on the same land year after year; that the land to be well managed must have change is admitted; the operations of nature and the course of this is not so easily ascertained or admitted; one

writer attributes it to the plants deriving each its peculiar sustenance from the soil, therefore if the same plant be sown frequently it exhausts that peculiar quality in the soil on which it feeds. Another attributes it to an excrementitious matter in the soil, which is left by plants which are injurious to plants of the same nature, but may be advantageous to plants of another genus. But it is certain that by an alternation grain and green crops, such as clover, turnips, mangel wurtzel, &c., the land is improved, and if the clover be mown and given to cattle in stalls or sheds, two acres will keep as much as three in the usual method, and the manure will be preserved and be of far greater value to the farmer than if exposed and dried in the sun and wind upon the field; and he may thus increase the fertility of his farm to almost any extent, and he will thereby increase not only his stock of cattle, but his grain and all other produce by cultivating green crops and by stall feeding.

Mr. JACKSON said the plan might do very well for a small arable farm of forty acres, but where there was a quantity of meadow and pasture it would not answer.

The PRESIDENT said that was the way an English farmer ought to come forward and state his objection. Now in opposition to Mr. Jackson's views he could show a farm just beyond Greta Bridge, where there were 20 or 30 heads of young horses all collected in the farm yard. The plan was found to answer in an extraordinary manner.

Mr. JACKSON.—But all have not that convenience.

The PRESIDENT.—True, but this shows the value of discussion.

Mr. ELLISON would venture to say that there was more accommodation of the sort required to be found in the farms of Westmorland and the north of Lancashire than in the whole world again. He had been on the Duke of Cleveland's estates in the north, and there was not one on which they could drive a cart into a barn and unload 40 or 50 loads of grain; and they had loose sheds for cattle. But here it was said the landlord did not do his tenant justice if he did not build this, that or the other. He was sure no stigma could attach to the landlords of Westmorland and Lancashire for not building conveniences to house grain.

Mr. ELLISON proposed the health of Mr. Jackson, of Borwick Hall, in a highly complimentary manner, and took occasion to say that he found all those farmers the most ready with their rent, who adopted the improved system of husbandry.

Mr. JACKSON returned thanks.

Before the meeting broke up, a number of Sweepstakes for the next meeting were entered into

**RUSSIAN AGRICULTURAL SCHOOL.**—The directing Senate of Russia, in consequence of an order from the Emperor has founded an agricultural school on one of the estates of the crown, and in the government of Mohiloff. This school is divided into two sections; in the first, the pupils are to study three years, in order to be capable of executing or advancing any plan proposed for the improvement of rural economy. The second is destined to the education of practical farmers, who by means of their extensive knowledge, may be able to direct the farming of great estates, and to introduce the improvements of which they themselves form the plan. The school is to be furnished with a collection of agricultural tools, both Russian and foreign, and either of the proper size or as models. The pupils will all be taught to make the various tools and machines which are used in the establishment, or which are required for sale.

PENRITH BRANCH OF THE EAST  
CUMBERLAND AGRICULTURAL  
SOCIETY.

The third annual meeting of this Society was held on Wednesday Sept. 28, at Penrith, and we rejoice to record that in every respect it was most cheering for the subscribers, and highly interesting to strangers, many of whom attended from a very considerable distance. The heavy and long-continued rain made the ground very uncomfortable, and the stock did not appear so well as they would have done had the day been more favourable. The quantity shown far exceeded that of the two previous years, being fully one-third more than last year, a convincing proof of the increasing interest taken in the success of this Society. Among other noble animals, a fine bull belonging to Mr. Denton, four years and a half old, attracted every person's observation: it was certainly one of the finest, as regards bulk, on the ground. A bull, purchased by Mr. Sober Watkin, of Plumpton, for ninety-five guineas, very naturally attracted the sight of many of the breeders present. The sheep were very first-rate, and so numerous that the task of selecting the best, must have been one of great difficulty to the Judges. The mares and foals were declared to be superior in every respect to those shown there on any former occasion, and the swine were good and great. If there was a falling off at all, it was in the quality of some of the inferior cattle, which did not come so near the winning mark as on some former occasions. We subjoin, in the course of this article, a list of the premiums awarded, with the names of the fortunate competitors.

A very sumptuous dinner was served at the George inn, to a most respectable party, 203 in number, including the principal gentry and yeomanry of the county.

After the cloth had been drawn, Wm. Crackanthorpe, Esq., of Newbiggin Hall, the Chairman, proposed the health of his Majesty with three times three.—The next toast was the Queen: then the Princess Victoria and the rest of the Royal Family: and then the Army and Navy.

The CHAIRMAN then said—Mr. Vice-President and Gentlemen, the next toast I shall propose to you is the health of the Lord Lieutenant of the County, as the liberal and munificent patron of this society, and the constant supporter of agriculture in general. (*Drank very cordially with three times three and one cheer more.*)

Colonel LOWTHER returned thanks.

The CHAIRMAN then, after some prefatory observations, said—I believe, Gentlemen, that I may congratulate myself that it has fallen to my lot to be called to this chair at a moment somewhat more favourable to the interests of agriculture than either of my predecessors. A great change has taken place in the prices of all sorts of agricultural produce. Wheat, I believe, at this moment bears an average of 50s, wool is in great demand, and I believe I may add that stock offers a fair remunerating price, both to the breeder and to the grazier. (*Hear, hear.*) And, Gentlemen, we must not forget that all these material changes for the better have taken place without resorting to any legislative enactment; not, indeed, that I believe the agricultural interest is so perfect, that no change is required, but we do not require any material change; for during the last Session, the House of Commons appointed an agricultural committee, formed of county members and the

most intelligent individuals in the House, and those gentlemen, best versed in the subject, were not able to come to a conclusion as to the cause of the distress that overhung this important interest so long, and therefore, of course, were not able to propose any remedy. Mountains appeared in parturition, but not even a mouse has been produced. (*Laughter and applause.*) As to the low price of wheat, in former years, for I think it was once as low as 36s per quarter, I think it may be fairly attributed in some measure to the abundant harvests with which it pleased providence to bless these islands—and what being the natural standard of all agricultural value, it follows therefore that all productions depreciated in the same proportion. There is, however, an elasticity about a great nation, that enables it to recover from the loudest shocks, and I believe the greater proportion of the wonderful and marvellous increase of the commerce and manufactures of this country is to be ascribed to the low prices of corn and other articles of agricultural produce. But it is impossible that such an interest can long languish, while commerce and manufacturers prosper, and I rejoice to say, that after a too-lengthened period, we are now witnessing the revival of this interest: the revival of agriculture has taken place; thus I think we may congratulate ourselves that by such healthy means, rather than by any more than doubtful experiments, I now refer more especially to any projected alteration of the currency, a new order of things have arisen, and that question I believe is now set at rest for ever. But, Gentlemen, I do not mean to say that there are not grievances which may not form a good subject of complaint on the part of our Representatives in the great council of the nation, their strongest and most serious attention. I think, for instance, that increased facilities may be given to the disposal of our produce; I think also that a part of the duty on malt may be repealed or taken off, for I have not to learn that it forms such a large amount of the income of the country, that it would be useless to dispense with the entirety. With respect to Tithes, I would remark that this subject has already engaged the attention of the legislature, and an Act which was passed on the subject during the last session of Parliament, has deprived us of the able services of our late Representative, Mr. Blamire, who has been called upon to carry that Act into force as a Commissioner. I hope, Gentlemen, it will not be considered impertinent in me if I express my regret at his absence this day, not in the character of a politician, for with that we have nothing to do here, but in the character of an agriculturist, for I am sure that no man has it more at heart. I trust that by this commutation of tithes a great scope is given to agricultural skill and industry, and that when a rent has been once permanently fixed, every man may cultivate his land according to his own way, and I trust this measure will be soon followed by a bill for the abolition of tithes. With regard to the poor-rates, which press heavily upon the land, I believe that I may say they have been reduced to a considerable extent by the new Bill, and that not less than two millions will be saved between the totals of 1831 and 1836, upon the general poor-rates of the country. In this district, we happily have been almost exempt from the almost intolerable burden, which oppressed the southern counties; here there still exists among the peasants, I believe, a bold feeling of honest independence; we know nothing here, happily, of

whole parishes becoming pauperized. As, however, the Act of the Legislature is for the purpose of rendering the deserving poor more comfortable and better attended to, while it is calculated to deter the idle and the profligate, and to raise the general standard of the moral feeling of the people, I trust it will become beneficial even in this county, though we cannot expect to derive from it the same benefit as they have done in the southern counties. The Highway-rate also presses heavily upon the farmers, but I trust that all these grievances will in time disappear, while the landlord and tenant, by a fair adaptation of the rents to the circumstances of the times, and an attention on the part of the farmers to those improvements which science is daily discovering, and which skill directs to practical purposes. I hope I may be allowed to say there is no occasion to despair, but on the contrary every encouragement to go on, and I therefore think Societies of this nature are particularly useful. They bring under the eye of the farmer the discoveries of others, and to the theorist gives the experience of the knowledge of the practical farmer, a knowledge which I am sorry to say the farmer does not attend to so much as the manufacturer, who solicits knowledge of every discovery, conscious that if they neglect any improvement, then skill is of no value. Let the farmer then, I say, follow the example of the manufacturer; *let the landlord accommodate his rents to the circumstances of the times*, let both petition the legislature for the removal of all real and acknowledged abuses, and then I am sure the sentiment of my toast will be fully borne out, namely, we shall have prosperity to the Penrith Agricultural Society. (*Loud Applause.*) The Chairman then read over the list of premiums, commenting, upon each as he proceeded. After he had gone through with the stock, he proceeded to remark that premiums had been offered to the most deserving servants in husbandry, and before declaring the awards under that head, he gave as a sentiment, "May the good tone of moral feeling among the labouring population of this county, continue to exist in as good a state as it has hitherto done."—He concluded his remarks on the premiums by proposing the health of the Judges who had that day made the awards.

The following are the awards.

#### FARMS.

1. To the tenant and occupier of any farm, whether or not dependent upon farming exclusively for a livelihood, the farm being not less in quantity than 100 statute acres, who shall have the same properly subdivided with fences, suitable to the soil and situation, in the neatest and most exact order, water-courses, water-banks, roads, gates, stiles, farm yards, &c. included; judicious draining, the arable land under the most approved course of cropping, and also the grass land in the neatest and best condition, &c. Soil and situation to be considered. 8*l*. Awarded to Mr. J. Robinson, of Plumpton.—Farm of 130 acres—51 acres grass land; part of this has laid one year, and the other part more than one year—this latter portion is not in good condition—the former is in excellent condition; 10 acres meadow; 25 acres turnips—an excellent crop considering the season, and well cleaned; 10 acres of seeds upon wheat stubble—very good; 10 acres of ditto upon barley stubble—also very good; 24 acres of oats upon land that was ploughed out in the spring, the land they grow upon is in poor condition; fences, gates, and stiles—the greater part very good, the remainder only indifferent. Report: we consider

from the excellence of his crop of turnips, and the goodness of his seeds, together with the general good order of his farm, that he is entitled to the premium, class 1.

Mr. John Mounsey, Askham, Westmoreland.—Farm of 160 acres, viz., 105 acres of grazing land, in very good order; 25 acres of meadow land, also in excellent order; 10 acres of wood land; 20 acres under the plough—not in the best style; gates, stiles, and fences—very good. Report: we consider the land in tillage—only 20 acres—far too small in proportion to the extent of the farm, and on this account we cannot award to him the premium.

2. To the tenant and occupier of any farm, not being less in quantity than 40 statute acres, nor more than 100 acres, who shall have the same in the neatest and most exact order, as in premium 1, 4*l*. Awarded to Mr. Thomas Stagg. From the general good order of his farm, we think him entitled to the premium, although there is no other competitor.

3. To the tenant and occupier of any farm, who shall produce the best crop of turnips, according to the nature and quality of the land, thoroughly cleared from weeds, and equally thinned; the number of acres to be in proportion to the quantity of arable land in such farm, 3*l*. Awarded to Mr. John Watson, of Longwithby.

4. To the person who shall produce to the Inspectors, at the September survey, the best general stock of store cattle, including horses, cows, sheep, pigs, &c., according to the extent and quality of the farm, the same being not less than 50 statute acres. The whole of the stock on such farm to be exhibited, 5*l*. Awarded to Mr. Sober Watkin. From the excellence of his stock, although no other competitor, we awarded the premium.

5. To the person who shall produce the best crop of turnips, raised from bone manure, 2*l*. (This premium is given by Mr. M. Robinson, of Stockbridge Mill, and Mr. Mitchell, of Bolton Mill, bone dust manufacturers.) Awarded to Mr. Henry Richardson, of White Stoe.

#### CATTLE.

6. For the best short-horned bull, being an approved stock getter, engaged to serve cows within the limits of this Society, during the succeeding season, for the use of the same, at 10*s*. each, 10*l*. Mr. Joseph Dixon, of Broadwath, for his bull, Reformer. Second best, Mr. David Bird, Catterlen Hall.

7. For the best short-horned bull, under 2 years old, to be kept as in premium 6, 4*l*. The committee have limited the number of cows to be served by this bull to 25. Mr. Watkin, Plumpton.

10. For the best short-horned cow or heifer, in calf or milk, 5*l*. Mr. George Hutchinson, Woodside.

11. For the best two year old short-horned heifer, 3*l*. Mr. Watkin Plumpton.

14. For the best two year old Galloway heifer, 2*l*. Mr. Gilkinson, Beaumont.

#### HORSES.

14. For the best brood mare, for the general purposes of agriculture, 4*l*. Mr. Simpson, Plumpton.

15. For the best Cleveland or coaching brood mare, 4*l*. Sir George Musgrave, Edenhall.

Mr. John Nichol, of Stainton, whose horse "Victory," obtained the premiums at Penrith, in 1835 and 1836, offered the following premiums:—

For the best foal got by Victory, 10*s*. Thomas Scott, Esq., Plumpton.

For the best two year old colt or filly, got by Victory, 1*l*. Mr. Rippon, Acorn Bank.



## SHEEP.

16. For the best black-faced ram, engaged to be kept during the succeeding season, within the limits of this Society, 2*l*. Mr. John Hodgson, Newbiggin.

17. For the second best black-faced ram, 1*l*. Mr. John Spedding.

18. For the best Herdwick ram, to be kept as in premium 16, 2*l*. Mr. John Robison, Blaze.

19. For the second best Herdwick Ram, 1*l*. Mr. John Mounsey, Settra Park.

20. For the best Leicester ram, to be kept as in premium 16, 4*l*. Mr. Fair, Frenchfield.

21. For the second best Leicester ram, 2*l*. Mr. Fair, Frenchfield.

22. For the best pen of five Leicester ewes, which have reared lambs this season, 2*l*. Mr. Watkin Plumpton.

23. For the best pen of five Leicester Gimmer Shearings, 2*l*. Mr. W. H. Parkin, Skirsgill.

24. For the best pen of 10 black-faced ewes, having reared lambs this season, upon the hills or heath, selected from one stock, bred in the district, and brought down from the hills or mountains where bred, not being grazed on good land, 3*l*. Mr. Matthew Atkinson, Templesowerby.

25. For the best pen of 10 Herdwick ewes, bred as in premium 24, 3*l*. Mr. Ellwood, Thorpe.

25. For the best pen of five black-faced gimmer shearings, bred as in premium 24, 2*l*. Mr. Atkinson, Templesowerby.

25. For the best pen of five Herdwick gimmer shearings, bred as in premium 24, 2*l*. Mr. John Robison, Blaze.

## PIGS.

26. For the best boar of the most approved breed, under 3 years old, engaged to be kept within the limits of this Society, during the succeeding season, for the use of the same, 3*l*. Mr. Tinkler, Julian Bower.

27. For the best breeding sow, which has had pigs within four months, of the most approved breed, 2*l*. Mr. Watkin, Plumpton.

28. For the second best breeding sow, as in premium 27, 1*l*. Mr. Stagg, Grange.

## REWARDS.

29. To the farmer's man-servant, who has lived the greatest number of years in one situation, to the perfect satisfaction of his employer, not being less than 10 years, 2*l*. Joseph Grindale, Hartsop, Patterdale, has lived with William Atkinson, of Hartsop, for 31 years and four months.

31. To the labourer in husbandry who has brought up the greatest number of legitimate children, without parochial relief, 3*l*. Thomas Favcett, labourer, Brockle Moor, widower, who has brought up 13 legitimate children, without ever receiving parochial relief.

## HUSBANDRY IMPLEMENTS.

32. To such improved implements of Husbandry as may be brought before the committee, that a discretionary power be left to the Judges to reward the inventors or exhibitors to the amount of 5*l*., if judged deserving:—

Bone drill—Mr. William Pollock, Dacre, 1*l*.

Turnip drill—Mr. Fair, Frenchfield, 10*s*.

Grass sowing machine—Mr. Fair, Frenchfield, 2*l*.

Single and double mould board iron plough—Mr. Fair, Frenchfield, 10*s*.

Single and double mould board iron plough.—Mr. Mounsey, Askham, 10*s*.

## SOCIETY'S SWEEPSTAKES.

1. Best fat cow or heifer of any breed, 1*l*. Mr. W. H. Parkin, Skirsgill.

2. Best fat bullock of any breed, 1*l*. Mr. W. H. Parkin.

7. Best Draught mare, 10*s*. Mr. John Cooper, Penrith.

8. Best fat pig, not exceeding 18 months old, 10*s*. Mr. George Wright, Eamont Bridge.

## PRIVATE SWEEPSTAKES.

A Best three year old hackney horse, 20*s*. each. Mr. Cooper, Carleton Hall.

B A pair of the best three year old grazing bullocks, 20*s*. each. Mr. W. H. Parkin, Skirsgill.

C Best breeding sow according to shapes and quality, 10*s*. Mr. Watkin, Plumpton.

D Best short-horned bull under two years old, 10*s*. Mr. Watkin, Plumpton.

E Best three old heifers, 20*s*. Mr. Watkin, Plumpton.

F Best fat cow or heifer of any breed or age, 1*l*. Mr. Watkin, Plumpton.

G Best two year old heifer, 10*s*. Mr. Watkin, Plumpton.

H Best one year old heifer, 10*s*. Mr. Benn, Lowther.

I Best heifer calf, 10*s*. Mr. Watkin, Plumpton.

J Best three one year old bullocks, 10*s*. Mr. David Hill, Edenhall.

K Best lot of five cows. Mr. Watkin, Plumpton.

Q Best fat ewe, 10*s*. Mr. W. H. Parkin, Skirsgill.

R Best Leicester tup lamb, 5*s*. Mr. Watkin, Plumpton.

S Best Leicester ewe lamb, 5*s*. Mr. Watkin, Plumpton.

Y Best shaped fat sow according to breeding and quality, 10*s*. each. Mr. Watkin, Plumpton.

Z Best heifer calf, 20*s*. each. Mr. Benn, Lowther.

A A Best three year old (or under) short-horned bull, 20*s*. Mr. Watkin, Plumpton.

B B Best boar, 10*s*. Mr. Tinkler, Julian Bower.

C C Best pen of five tup lambs. Mr. Watkin, Plumpton.

D D Best pen of five gimmer lambs, 10*s*. Mr. Watkin, Plumpton.

E E Best coaching colt foal, 10*s*. Mr. William Brown, Red Hills.

F F Best ten two year old heifers in the hands of the breeders, 20*s*. Mr. Fair, Frenchfield.

G G Best ten two year old bullocks in the hands of the breeders, 20*s*. Mr. Fair, Frenchfield.

H H Best ten dairy cows in full milk, 20*s*. Mr. Fair.

I I Best pure bred Leicester lambs, 20*s*. Mr. Fair.

L L Best three year old coaching colt, 10*s*. Mr. Rippon, Acorn Bank.

M M Best colt or filly foal of any breed, 10*s*. Mr. Cowper, Carleton Hall.

N N Best two year old coaching filly, 10*s*. Mr. John Peat, Mount Pleasant.

P P Best lot of three two year old short-horned bullocks, 10*s*. Mr. Fair, Frenchfield.

Q Q Best black-faced ram, 10*s*. Mr. John Hodgson, Newbiggin.

S S Best two year old gelding of the coaching breed, 10*s*. Mr. John Pears, Plumpton.

T T Best yearling of the coaching breed, 10*s*. Mr. Pears, Plumpton.

Mr. William Brown's premium for the best colt or filly foal got by Lottery. Nos. 6 and 7 were best, but as they belonged to Mr. Brown, he transferred it to Mr. Stephenson, of Pallet Hill.

Mr. GREY, of Corbridge,—one of the Judges whose health was drunk, and steward to the Greenwich Hospital estates, returned thanks.

The CHAIRMAN then proposed the health of the three Judges of the farms, Mr. John Graham, Mr. Unthank, and Mr. Pearson. (*Drank with three times three, and no cheer more.*)

Mr. GRAHAM returned thanks.

The CHAIRMAN next proposed the healths of the successful candidates, coupling with that toast the names of those who appear most frequently on the list, viz. Mr. Watkins, of Plumpton; and Mr. Fair, of Frenchfield. (*Drank with all the honours.*)

Mr. WATKIN said, I am extremely obliged to you for the compliment you have paid me, and have only to say, that I hope I may be placed in the same enviable situation next year. (*Applause.*)

Mr. HASELL, of Dalemain, the Vice-Chairman, then rose, and was received with continuous marks of applause. He said, I am exceedingly obliged to you for the handsome way in which you have greeted me, and I hope I have good taste enough, I am sure I have good feeling, to appreciate it properly. I am afraid I must begin in a very bold manner, by calling our worthy Chairman a little to order: he has jumped over one of my toasts, and given the other in such an able manner that he has quite confounded me. (*Laughter.*) But I beg to remind you, that as you have already drank the successful candidates most heartily and most deservedly, I beg leave, I say, to remind you of this plain fact, that if there were not also unsuccessful candidates, there could not be successful ones. (*Hear, hear.*) And the toast I am about to give is the unsuccessful candidates; and notwithstanding what Mr. Watkin has said, I hope the unsuccessful candidates next year, if they do not come up to him, may run him very hard. (*Laughter.*) And I would give you a good old English saying, a good old Cumberland wish, "Better luck to them next time." (*Three times three.*)

The VICE-CHAIRMAN then said, I beg leave to propose a toast, Mr. Chairman, which I have no doubt you will at once see the propriety of, and acknowledge it as it deserves. I hope the company will take the opportunity of returning their best thanks to the managers of this Society, especially the Committee of Management, whose healths I propose, coupled with the name of Mr. John Crosby, without whose efforts the business of this Society could not be managed in the satisfactory way in which it has been done. (*Drank with three times three.*)

Mr. CROSBY said, permit me, on behalf of the Committee and myself, to acknowledge the handsome manner in which our labours have been noticed. I am very sure that the Committee will be highly gratified at the success of our labours to-day. In the performance of our duty, we have received the most effective service from our worthy Treasurer, Mr. Fair, and our active Secretary, Mr. James Brown, and I am sure more merit is due to them than to us.

The CHAIRMAN—It is, I say, totally unnecessary for me, after what you have heard from the worthy Chairman of the Committee, to offer any thing in the shape of an eulogium upon Mr. Fair and Mr. Brown. In a Society of this kind, so much depends upon its machinery that without good officers we could not work, and I am glad to bear my testimony to that already afforded to the Treasurer and Secretary.

Mr. FAIR returned thanks for both, in an appropriate speech.

Mr. FERGUSON, Esq., of Harker, then proposed

the health of the Chairman, in a very neat speech. (*Drank with all the honours.*)

The CHAIRMAN said, I return you my thanks for the courteous manner in which he has proposed my health, and to you for so cordially acknowledging it. As I said before, I feel that I unworthily fill the office, because I have no pretensions to the character of a practical agriculturist, and feel that I am totally ignorant of the subject, and not prepared to take an active part in the proceedings of this day; but I think the keeping up of those institutions is the best means of keeping up agriculture, by bringing forward all the improvements in the science, for such I will call it—but not less in drawing together and cementing in a strong bond of union, the proprietor, the farmer, and the tradesmen of the various agricultural towns in which they are formed, for it is more important that as we all derive our existence from one soil, we should unite and keep together closely. Permit me to apologize now for a lapse of duty: I should ere this have given the health of our absent Vice-President, Sir George Musgrave. It was his intention to have attended this day, and no one would have rejoiced more than myself in beholding him among us, a resident agricultural gentleman, and I am sure that there is no one will do more to fulfil his duties towards this Society. I give you, therefore, his health, with an expression of deep regret at the cause of his absence. I would give it, I assure you, with three times three, with great pleasure, but on the present occasion I think it is better to give it without that accompaniment.

The VICE-CHAIRMAN then proposed the health of the Members for the county, Mr. James, who is present, and Sir James Graham, who would have been here, but for the death of his mother. (*Three times three.*)

W. JAMES, Esq., M. P., said, I beg you to accept my grateful acknowledgments for the honour you have just been pleased to confer upon the Members for the county by drinking the last toast, and particularly do I thank you for the compliment of giving me three cheers when I was standing up to address you. I take great shame to myself that this is my first attendance at a meeting of the Penrith Agricultural Society, but I am glad to say that I have been this day made a member, and have become a subscriber, and shall do my utmost in future to further your objects and ends, and although I am most unworthy to fill so conspicuous and useful a place as your late member, yet I trust to be able some day to show a fine animal of my own. (*Laughter.*) And if I only get a little of the good luck of the gentleman—Mr. Watkin, I believe, is his name—I shall be quite satisfied. (*Laughter.*) I concur with Mr. Hasell, that it is the duty of a representative, through the medium of a meeting like this, to carry to the great council of the nation your views and wishes, and I shall endeavour to do so. But I shall do more: I shall have an opportunity of making the personal acquaintance, and gaining the friendship, I hope, of those members with whom I may meet, and with my constituents, with whom I have formed a most important connexion. I can assure you that no man regrets more deeply than I do the depression which has taken place in the agricultural interest for so many years, but I join with Mr. Crackanthorpe in congratulating you upon its improved condition, and I shall be always most happy to do any thing to promote the just interests of the agriculturists. And before I sit down I beg

to propose to you a toast, which I am sure will deeply affect your wishes and interests, it is the health of a gentleman, than whom none is more respected and beloved in this county; it is the health of Mr. Hasell, with three times three, and long life to him.

Mr. HASELL returned thanks.

Mr. WILLIAMSON, being called upon, then sang an excellent original song, 17 verses in length, the hits of which were good, the only fault being that it bordered rather too much on politics for such a meeting.

The CHAIRMAN—I will now take the liberty of proposing the health of the Members for Westmorland, one of whom I am happy to have on my left hand. I believe there is no man in the county who is a better judge of some kinds of stock than Col. Lowther. (*Loud cheers.*) I speak particularly of horses, he having been in that department of the military service which has made him familiar with the cavalry horse. Nor is his agricultural knowledge confined to that particular class, for he has a good notion of a good hunter. Therefore I give you a toast which I am sure you will receive with great cordiality, the Members for Westmorland. (*Drank with three times three, and one cheer more.*)

Colonel LOWTHER, M.P., said, allow me, Gentlemen, to return you my best thanks, and I will not detain you long by any remarks at this hour of the evening, but I wish to set the Chairman right in one particular: he considers that I am only half a farmer. I wish I could see the prospects of the farmer in the same favorable light he does, but I think he colours them rather too high. I do not speak at random here, for I have been a practical farmer for 15 years in the midland counties; I am very fond of it, and have taken great pains in every kind of stock, and I may now tell you that I am a member of one of the largest agricultural societies in the kingdom, where there is a greater number of cattle assembled at the show than at any other in England, I speak of the county of Rutland show, and if an animal succeeds there, it is almost sure of obtaining a prize at Smithfield, and last year I had the pleasure of winning two prizes, the last of which was one for ten of the best Leicester ewes. (*Cheers.*) Be assured, Gentlemen, that if there were any thing I could do for you—and you know every little helps, and thus the snow-ball is converted into a mountain—you have only to name it, to ensure compliance from me. (*Loud applause.*)

The VICE-CHAIRMAN: After the very flattering manner in which my humble exertions have been received on this occasion, I cannot avoid recommending a friend to fill the office of Vice-chairman next year, and I have great pleasure in proposing to you a gentleman of high respectability, who would have been in this company, but that he is a practical farmer, and would have come here with a long speech about black-faced sheep, of which breed he is so intent on improving, that instead of being here, I fear he is lost in the midst of Helvellyn. (*Laughter.*) Secondly, he is a Member of Parliament, and thirdly, I beg leave to say, that he is a King. So that we have two Kings: one is King William the Fourth, and the other is the King of Patterdale—Mr. William Marshall. (*Cheers.*) I hope you will drink his health, and next year I hope we shall receive some valuable information from him about black-faced sheep.—*Three times three.*

The CHAIRMAN, in a very complimentary speech,

proposed the health of Mr. Marshall's colleague in parliament, Mr. Howard.

P. H. HOWARD, Esq., M.P., said, I wish, Gentlemen, that we had been favoured with the presence of my twin-brother in the representation of Carlisle, but he being absent it devolves upon me to return thanks for the honour I deeply feel. Although there have not been many competitors here this day from the immediate vicinity of Carlisle, yet it is some pride for me to reflect that the first prize has been borne away by my friend and neighbour, Mr. Joseph Dixon, and I am sure the city which I have the honour to represent, will shine by the reflected lustre from his fame. Allow me now to take this opportunity, Gentlemen, of suggesting, that by a Railway communication between this town and Carlisle, the agricultural interest would be materially benefitted in both towns. I trust that this will be a point not to be lost sight of, but that you may at no distant day send your stock by railroad and the canal to the Lancashire markets, and gladden the sight of a Liverpool alderman with the contemplation of these splendid specimens of stock shown to-day. We know that in Lancashire they have been rather accustomed to look with favour upon the lean kind of the Sister Isle; but once send your stock there, and the market is your own. My friend Mr. Williamson has just reminded me, that there is one premium neglected in this Society, which might prove very useful to the district. We have two premiums for nearly every kind, but none for that very excellent breed, the South Downs. Now if we had confined ourselves to the Cumberland breed, there might be some consistency in adhering to them; but when we have admitted the Leicestershire into the prize list, why not go a little further, and admit that kind of stock, which combines good mutton and excellent fleece—I mean the South Down sheep. My father, I recollect, at one time rented a large district of Skiddaw; he had upon that district large quantities of sheep, and I have it from my friend Mr. Thompson, of Bridekirk, that the South Down breed was introduced there, and the effects still continue, the weight is increased, and the quality is altogether superior to the native breed. He concluded by again thanking them.

The CHAIRMAN next proposed the healths of the Carlisle Gentlemen present, in eulogistic terms.

The VICE-CHAIRMAN, in a very appropriate speech, proposed "prosperity to the West Cumberland Agricultural Society," connecting with it the name of Mr. Browne, of Tallentire Hall.

W. BROWNE, Esq., said, I have to return you thanks, Gentlemen, on behalf of the West Cumberland Agricultural Society, for the honour you have been pleased to confer upon that body, and not less so for the honour you have conferred upon me as one of its members. We certainly cannot, I am sorry to say, enter into competition with you. I come here to learn, not to compete, but I hope we shall improve in time. In my exertions to establish the West Cumberland Agricultural Society, it was my wish to unite this great county together, the same as the kingdom of Scotland has been united in the Highland Society, that we might meet and compete together. I very much fear, however, that this feeling must be, as regards our side of the county, in abeyance at present, for I am sorry to say, after what I have seen this day, that we are not able to compete with you. We labour under great disadvantages; my neighbours, good men, have a very great anxiety

for following exactly the steps of their forefathers, and therefore we are obliged to comply with their wishes, by offering premiums for that venerable, but almost exploded breed of animals, the Cumberland long-horned. (*Laughter.*) I was congratulating myself at the latter end of last year, when some friends told me that there was only one of that breed shown, and I hoped I might say, in the language of Marmion, "Last of his race, by hutchers bled,—his like will ne'er be seen again." This, however, was a fallacious hope; for no sooner did the Spring meeting take place than we had five or six of these long-horned animals produced, and a sufficiency of cows to keep up the breed for my lifetime. I should wish, however, while on the subject of the West Cumberland Society, to say something in its favour; and though we cannot boast of the purity of blood you have displayed, we, I think, can compete with any part of England for variety of stock. (*Laughter.*) It has been said that nature delights in variety, but my West Cumberland neighbours beat nature hollow; for I do not believe there is a cross or a re-cross which we have not tried, and if the gentleman who has gained so many prizes to-day, wishes, like Alexander, for another world to conquer, I would wish him to come into West Cumberland and try his hand there: he will there find a great variety of animals, so much so, indeed, that it would puzzle the united skill of all the worthy judges present, to say from what stock they were originally derived. (*Cheers and Laughter.*) I do not know, Gentlemen, that we have any thing more than what I have mentioned to induce you to come amongst us. You can show us some of the best stock in England: I will not promise you a similar sight, but we can show you some of the worst. (*Laughter.*) I can only say, in conclusion, that I have one sincere wish, reserving to myself and my neighbours in the West their full share of it—may this Society go on and prosper, and may we go on and improve.

The CHAIRMAN next gave "Success to the Lancaster Agricultural Society," connecting with the name of Mr. Binns.

Mr. BINNS returned thanks in a very interesting practical speech.

Mr. BROWNE then recommended the notice of the meeting a new reaping-scythe, which he had introduced upon his farm, from Edinburgh, by which a man could easily reap an acre and a half or two acres per day. He obtained it from Drummond's museum at Edinburgh, the cost being only 13s.

The CHAIRMAN next gave the health of Mr. Howard, of Grey-stoke.

H. HOWARD, Esq., in returning thanks, urged upon the meeting the necessity of considering and furthering plans for the extension of railways to Penrith.

The health of Mr. Gill, and success to the Brampton Agricultural Society, and various other toasts followed.

The party broke up at about nine o'clock.

EXTRAORDINARY PRODUCTION OF WHEAT.—On two allotments of land, occupied by labourers at Eye, the property of Sir E. Kerrison, Bart., situated near the road leading from Eye to Brome, one piece, 23 rods, produced 9 bushels of wheat, which is equal to upwards of 15 eombs per acre; the other measuring 25 rods producing 11 bushels, which amounts to 17½ eombs per acre. The above shows the result of good farming.

## COUNTY OF BUCKINGHAM AGRICULTURAL DINNER.

On Saturday, Sept. 24th, the annual dinner of the farmers of the county of Bucks, took place at the George Hotel, Aylesbury. Upwards of 100 wealthy and influential holders of the soil attended. There were also present the Marquis of Chandos, W. Praed, Esq., M.P., Sir Thomas Freemantle, M.P., Captain Willocks, the Rev. Messrs. Young, Earl, Roth, Shepherd, &c.

On the proposal of "The health of the Marquis of Chandos," his lordship said that he was highly gratified by this expression of esteem and regard, and he felt great difficulty how best to express himself for repeated marks of kindness both upon public and private occasions. At a market table like the present, attended as it was by so large a portion of the farmers of the county, it would not be inopportune on his part to state a few opinions in respect to matters that concerned them all, identified as those opinions were with the agricultural interests of the country. (*Hear.*) Previous to the meeting of Parliament, the feeling of the country was decidedly in accordance with the fact that agricultural distress existed to an alarming extent, and the assembling of Parliament was looked to with great anxiety, in the hope that some measure would be devised by which that distress could be alleviated. (*Hear, hear.*) He had been exceedingly anxious that a select committee should be appointed to look into this state of distress, for the purpose of ascertaining if it were possible to afford any relief, and it was with sincere satisfaction he found that his intentions were anticipated by the Government, as was proved by the reference made to that distress in the speech from the throne. The Government, acting upon the recommendation of His Majesty's gracious speech, appointed a select committee themselves. The appointment of this committee took place a few days after the meeting of Parliament; but as it was an appointment made at the desire of Lord John Russell, of course he (the Marquis of Chandos) was not responsible for its acts. But the committee having been nominated by the noble lord, it devolved upon him (the Marquis of Chandos) to look to the names of those who composed it; and, upon seeing them, he at once declared to some honourable friends of his, that the committee was one in which he had no confidence, and one which, he believed, would be unsatisfactory to the farmers of England (*hear, hear.*); and his opinion upon this point rested upon the fact, that 19 of the members of the committee were taken from the ministerial side of the house, while only 14 were taken from that side of the house at which he (the Marquis of Chandos) had the honour to sit. The proposition to add Lord Darlington's name to the list was therefore made by him, but it was rejected by a majority of seven. This decision clearly proved to him that no friend of his would be allowed to be on the committee. (*Hear.*) Subsequently Mr. Woodhouse was appointed in lieu of Lord Stanley, who declined to act. Of the chairman of the committee, although politically opposed to him, he was bound to speak in terms of the highest respect; for nothing could be more manly or straightforward than his general conduct. A report was submitted to the committee, but he could not state its contents to the meeting, for it was not competent for a member of Parliament to advert to the contents of a report which had not received the sanction of the committee to which it had been submitted. He might be allowed, however, to say, that if this report had been assented to by the committee, in his judgment it would have

been most unsatisfactory, and would be calculated to ruin the best interests of the farmers of the country. (*Hear, hear.*) No report was made, but a pamphlet on the subject had been lately put forth by his hon. friend, Mr. Shaw Lefevre; and, although he did not agree in the conclusions come to, he admitted the fair and candid spirit in which he had given his pamphlet to the public. (*Hear, hear.*) Mr. S. Lefevre says—"I proceed, therefore, to explain my views on this interesting subject, leaving you to draw your own conclusions from the absence of any recommendation, which I attribute not to any want of consideration on the part of the committee for the interests of the farmer, but entirely to the impossibility of advancing any proposition which would meet with the concurrence of a majority of its members." Mr. S. Lefevre here states, in so many words, what he (the Marquis of Chandos) had frequently stated, namely, that he could not get more than four or five persons belonging to the committee to concur in any one specific mode of relief. He had advocated the repeal of the malt duty, but was defeated upon it. He then proposed, in his place in the House of Commons, that in any reduction of taxation which it was intended should take place, that the farmers should be considered in common with the rest of his Majesty's subjects. But upon this question also, he was beaten. Before the committee a good case was made in favour of a repeal of the malt duty, and he then consulted some friends as to the propriety of his again bringing the subject before the house; but they dissuaded him in consequence of the large majority that voted against him on the other question. Mr. S. Lefevre next says—"that there is evidently no want of sympathy on the part of the landowners for the condition of their tenantry." In this statement he perfectly concurred, and he felt grateful to Mr. S. Lefevre for having stated this important fact. Mr. Lefevre in another paragraph, makes a positive acknowledgement that the repeal of the malt tax would be advantageous to the farmer; but the way in which this reduction was proposed to be accomplished would be fatal to the best interest of the farmer. (*Hear.*) Now, in respect to this point, he differed in toto from his honourable friend, and denied that the malt duty was mixed up or interwoven with the existing corn laws. Of course the farmers never could have complained that that which was a protection of their interests could be one of the causes of their distress, (*hear*) and he was only astonished how such a question as the alteration of the existing poor-laws could form a topic of enquiry, where the complaint was agricultural distress. Mr. S. Lefevre, in writing upon this subject, proceeds to say,—“On these grounds I venture to recommend that the present scale of duties on the import of foreign corn be reduced, and one half of the malt duty remitted at the same time.” He opposed any such alteration of the malt duty. He was not to be blinded as to the end intended by this proposed step, for he would accept nothing that in his mind would have the effect of compromising the interests of the farmer. (*Applause.*) There were many who were anxious to repeal the corn laws for the sake of yielding to popular clamour; but where, he would ask, would be the farmer's protection if they accepted the reduction of one-half the duty on malt, with the proposed alteration of the existing corn laws? (*Hear.*) The evidence upon which the proposition of Mr. Shaw Lefevre was based, did not come from a farmer, or from any person connected immediately with the agricultural interests of the country, but from a gentleman, certainly of great respectability, but who was, in fact, a corn-factor, and who admitted that

any alteration in the existing corn laws would tend to benefit his own personal and private interests. (*Hear, hear.*) He knew not what were the opinions of Mr. Shaw Lefevre's constituents in Hampshire, but of this he was confident, that if any of the farmers of Hampshire, or of Buckinghamshire, expected to be benefited by a repeal of the corn laws, they would find themselves miserably disappointed. (*Hear.*) Mr. Shaw Lefevre, in another part of his pamphlet, mentioned:—"To some of my agricultural constituents I fear it may give dissatisfaction, because it does not point out a specific remedy for existing distress. To others it may cause alarm, because it proposes an alteration in those laws which have long been considered the key-stone of agricultural prosperity." On referring to the evidence which was given before the committee, it would be seen that it was there clearly proved that distress existed amongst the agriculturists of the country, and that that distress particularly bore upon heavy soils. It was objected to him (Lord Chandos) that he did not bring forward any specific motion during the last session in reference to the matter before the committee, but he had submitted a specific motion to the House of Commons to the effect, that in any reduction which should be made of the taxation of the country, a proportionate relief should be afforded to the farmer, in common with the rest of his Majesty's subjects. And here again he was defeated in his efforts to relieve the burdens of the farmer. (*Hear, hear.*) He would proceed to another part of the subject. They would remember that when the Reform Bill was before the legislature he had the honour of introducing a clause by which every 50*l* renter was enabled to give his vote at elections for knights of the shire. It was his pride that he had introduced this provision; and although it had been opposed by the Government of the day, yet, from the strong agricultural feeling which prevailed in the house, he was enabled to carry the clause triumphantly through it. If he gloried in anything, it was in having his name attached to the clause which appeared to have given so much offence; and he would ask them, would they sanction any alteration in it? ("No, no.") He had no wish to beard the Government. Had he wished to be turbulent or inclined to agitate, he could have got together a meeting equal in numbers, and much greater in point of influence and character than that collected at Birmingham, but that was not his object; his purpose was, by peaceable, constitutional, and tranquil means, to effect those objects which would be most beneficial to the country. (*Loud cheers.*)

FRENCH AGRICULTURE.—The thin weed choked crops, and starveling cattle and poultry of the French farmers, look wretched to English eyes; and the filth about the farm houses and cottages, and the neglected appearance of every thing, are not agreeable, certainly. But the country people are happy and contented, and polite to strangers and one another. They do not bow servilely to your coat or your estate, as in England, but exchange a salute with the frankness of good fellowship. It is quite a pleasure to receive and return the common greetings of "bon jours," or "beau temps," with the peasants. The want of capital, and the nigardly husbandry, which spares all the indispensable outlay to accumulate a pile of money to buy another acre of ground, tell little for the political economy of divided lands and small holdings; but the independence and happiness of individuals under this system are not to be overlooked in the estimate. The ever-boiling soup-kettle is replenished at little expense with herbs and vegetables, and the smallest medium of meat serves to flavour the mess.

## IMPORTANT TO FARMERS.

TO EDMOND WODHOUSE, ESQ. M. P.

Sir,—As a Member of the Central Agricultural Society, also of the Parliamentary Committee for Agricultural Enquiry, and the Member for this county, I and other Norfolk agriculturists have been anxiously waiting to learn from you the result of the enquiries of that Committee. The farmers have expressed their utmost degree of patience during the long and deliberate examination and enquiry respecting their "almost intolerable distress," as set forth in the petition of that society, not doubting but that the members thereof would produce evidence to support and establish their assertions, that the distress arose "mainly from parliamentary measures, and not from causes which are beyond the controul of Parliament," they being fully confident that "speedy and effectual redress" would be granted as one of the first and most important acts of Parliament, in compliance with the request and desires of the Central Society.

Your letter to the Editor of the Norwich Mercury, in the month of January last, inclosing a copy of the petition of the Central Society intended to be presented to the Lords and Commons, raised the hopes of the farmers to the highest pitch of expectation, being fully assured the Society was prepared to establish the fact of the distress, and the means of removing it, as set forth in that petition, consequently that on the meeting of Parliament they would be relieved from their intolerable burden. In this they were disappointed, but still finding a Committee of Enquiry was granted, their hopes and expectations were kept alive, waiting patiently, but anxiously, the result of that enquiry, presuming that during the sessions they should obtain their promised relief. However the sessions is closed, the Committee have finished their labours, the Central Society is vanished, and its members are dispersed, without leaving a wreck behind, or a gleam of hope, for the poor credulous and deluded farmers. It was a high and mighty conception on the part of the Society, but alas! it has proved a complete abortion.

We had expected that something in the shape of a report, or some information relative to the labours and proceedings of the Committee, would ere this time have been given to the farmers. If it has been discovered that Parliament can give no relief, it would have been only candour and honesty in them to have said so. Your constituents in the absence of all other information, may naturally claim from you an explanation of what has been the result of the enquiry of the Committee, of which you were, I presume, an active and intelligent member. I, a humble individual, and one of your constituents, shall feel highly gratified if you will favour the farmers and myself with your opinion as to the result of the enquiry, as it is not possible, or probable, the evidence given thereon will ever come to the hands of or be read by an hundredth part of your constituents, though I presume many of them would be perfectly satisfied with your opinion thereon, in preference to perusing it. However, in case you deem it unnecessary to give us a public explanation on this subject, may I request the favour of you to procure a copy of the Parliamentary evidence, published and laid before the House, for the use of myself and neighbours, in order that we may form our own opinion on this important, and I had almost said vital, subject.

From what I learn by the Norwich papers, I am not disappointed at the termination of this enquiry.

If you refer to my letter addressed to you, dated 26th January last, inserted in the Norwich Mercury, you will observe my opinion was, that Parliament could give no relief to the distressed and oppressed farmers, and that their relief could only come from landlords, tithe-owners, and a reduction of parish rates, or a considerable advance in the price of corn. I am the more confirmed in that opinion from the little information I can obtain of the result of the labours of the Committee, and I conclude from their silence, all hope of relief is vanished. I have seen in Bell's Weekly Paper, the examination of one or two witnesses, which appeared to me to relate chiefly to an enquiry how far it would benefit the farmer to be allowed to malt barley for the use of his horses and cattle; but there was not a question asked if rents and tithes were at a fair and just rate, or whether they were high or low. Unless the whole evidence is laid before the public, it is impossible to come to a just conclusion thereon. However if it is concealed, which appears to be the wish of the defunct Society, we shall conclude it is not proper to meet the eye of the suffering farmer.

If you wish to obtain a correct knowledge of the true state and condition of the farmers of this county, you may come at it very readily by spending one hour or two any market day on Norwich Cattle Hill, or at the Corn Market, with half a dozen of the intelligent tenants of your noble relative, or some other opulent Conservative. There you will obtain practical knowledge instead of theory; there you will get the necessary information to draw proper conclusions, and learn how they and their fellow sufferers may be relieved. If you wish for their good opinion and support at a future election, do not scruple to let it be publicly and openly published to the world. Let it be declared in the face of the landlords and tithe-owners, that the desired assistance and relief to the distressed and oppressed farmers must come from them and them only. The present prospect of the farmers is very little, if any, improved since January last, and if the distress was at that time "severe and almost intolerable," I conceive they now require that relief at the hands of the landlords and tithe-owners which they have sought in vain from the Central Society and Parliament. If you were induced, from the information of the Central Society, to believe that Parliament could grant relief to the distressed agriculturists, I trust you are now convinced it is not so, that your own good sense will admit you were in error, and I hope you will be honest enough to acknowledge it, or otherwise by your reply shew us that we are not right in our opinions upon this interesting enquiry. In case you remain silent on this subject, it will be an implied assent to the construction I have imputed to the Central Society and its Members, that their professions and proceedings are mere humbug and delusion.

I have the honour to remain, Sir,

Your most obedient humble servant,

THOMAS CLOWES.

Caister, 23rd August, 1836.

A NEW ARTICLE OF EXPORT.—Driving coals to Newcastle, and salt to Dysart, used to be thought absurd; but what would have been said of the driving of hay to America. This, in consequence of the failure of the crop there, is actually the case. There are at present, in the two export sheds here, 2500 stones of that commodity, ready to be shipped on board the Amity of Aberdeen, which is just about to be laid on for Miramichi. It is expected that she will take 10,000 stones. A larger vessel than the Amity is also to be dispatched from the Clyde to America with this novel article of export.—*Dundee Advertiser.*

## ON PRESERVING MANGEL WURZEL DURING THE WINTER.

TO THE EDITORS OF THE IRISH FARMER'S AND GARDENER'S MAGAZINE.

GENTLEMEN,—I beg leave through the medium of your Magazine, to request the advice and opinion of some of your correspondents as to the best mode of preserving mangel wurzel during the winter, a considerable quantity of mine having rotted in the pits in the last and preceding season, notwithstanding the roots were taken up carefully, the leaves stripped off, the crown paired with a knife, and, when piled up in the same form as potatoes are when pitted, covered with clean, dry straw, and then with earth.

I should particularly wish to ascertain whether the *experience* of any of your contributors would warrant the farmer, in leaving this crop to stand out, like turnips, during the winter and spring, a practice which I am almost inclined to hazard this year from the loss I sustained in the two last years, as also from the encouragement to make the trial, in having observed the cull plants left in a seed-bed, and which had stood in the ground all through last season were, even to the month of May last, as sound and firm as could be desired.

Your publishing this enquiry in the October number, so as to obtain the desired information in the following one, (November, being the usual time, I believe, for raising the crop,) would be highly beneficial to the Agricultural world in general, and in particular to your obedient servant,  
September 8th, 1836. M. W.

### ANSWER.

The cause of M. W.'s failure in preserving his mangel wurzel must be attributed to paring the crowns of the roots after the leaves were stripped off, or not putting earth (when covering the pit) next the roots, instead of straw, or not having mixed the roots plentifully with dry earth when piling them. Another circumstance might have caused M. W.'s roots to have rotted. If when he was taking them up he stripped the leaves off completely at once—particularly if they had been taken up early in November—the leaves are so fresh and full of sap at this period. In fact they have not done growing then. There is, consequently, a strong circulation of the natural fluids all through the plant. Taking the leaves off suddenly gives such a check to the ascending and descending sap, that the whole organized system is destroyed—and the roots by not having the organizable matter from the leaves regularly and gradually condensed become in an unsound state. We would not recommend mangel wurzel being left out all the winter, under any circumstances. They may do well of a mild winter and in a sheltered situation—but if there comes severe frost it will assuredly kill them. We had last winter some plants on a headland that were transplanted very late in the preceding summer. They were so small when the others were taking up that we did not think it worth while taking them. They continued safe all through the winter (notwithstanding the frost being pretty severe), and in April they attained a very good size. The roots weighed from 5 to 8lbs each. This proves that it is not prudent to take up the roots too early in any case. In 1830 a gentleman, (a friend of our's) in the neighbourhood of Dublin, had about three acres of very excellent mangel wurzel. They were allowed to stand out

all the winter. In January the frost came very severe, and the consequence was that all that had been over the ground of the roots appeared as if they had been boiled. The first fine day that came they were taken up and piled together, and covered with straw. In about a fortnight after they were piled the whole became a solid mass of putrid matter, and the stench arising from them became troublesome to a considerable distance from where they were. Thus nearly 200l worth of mangel wurzel was lost for the sake of experiment. Any experiment tried in such a case should be on a very small scale; and it should be proved sufficiently often before it be adopted on an extensive one. But as it is as easy to take mangel wurzel up at one time as another, and as if they are treated properly they are sure to be safe in pits—it is therefore better be "sure than sorry," and always to take them up the last week in November, or the first week in December. If the weather threatens to be severe they may be taken up earlier, and if it promises to be mild they may continue longer in the ground. A great quantity of them can be taken up in a short time when there is a fine day; and light frosts will do them no harm.

We have seen mangel wurzel piled up into a very large rick. It was built up in benches of about six feet wide each—putting a layer of straw at bottom, then a layer of roots *three deep*, and laying them flat and close the length and breadth of the bench; and so on, layers of roots and straw alternately until the rick was finished. It was then covered over with straw, and thatched neatly. The roots kept well by this method, but there was or appeared a dryness in the roots, which we did not like, and we are convinced they decreased considerably in weight.

From experience—the most successful we could desire—we recommend the following mode of preserving mangel wurzel during winter, with the greatest confidence.

About the first week in November, some of the leaves should be stripped off, taking only a few of the under ones off first. When they are all gone over in this manner, they should be commenced with again, and all taken off except a few in the centre. In going over them the third time the leaves may be completely stripped off, and then, if the weather be dry, they may be dug up. The footstalks of the leaves that remain should be paired off, and particularly the putrid leaves that are always found on them should be carefully cleaned off. But the crown or solid part of the root should on no account be touched. When any part of the root is wounded there forms a concretion on the wounded part—and when the root is stimulated by efforts of growth, &c., decomposition commences from the concretion formed on the wound, and rapidly spreads through the whole root—and when one root becomes rotten every other root that touches it becomes infected; and thus eventually—if not prevented—the whole are destroyed. When the roots are perfectly clean of leaves, &c. they should be pitted in a shallow pit made in a dry situation. The roots should be regularly piled up and made in the form of a potatoe pit—but much higher. They should be regularly and carefully mixed with dry earth all through, and the roots should be laid with their tops downwards, so that they would be fully half erect—for if they are laid in the same position as they grew, it will give them such facility in producing young roots and buds, that there will be so great a quan-

tity of fresh and soft vegetable matter produced as will be apt to cause a strong fermentation in the pit, and consequently endanger the roots. But even without this apprehension—the less they grow the better and the more nutritive the roots will be. When the pit is built it should be covered with the same kind of dry earth (particularly next the roots), about six inches deep, as was mixed through the roots, and then the pit should be well and carefully thatched over.

We are inclined to think that mangel wurzel cannot be preserved by any other mode safer than by this, and we feel confident that if "M. W." manages his roots so, he will in future sustain no loss by them.

### THE BANK OF ENGLAND — THE MONEY MARKET — AND THE CORN TRADE.

Next to the weather, and the relative produce of the several crops, so far as it has been ascertained, comes the monetary system in point of importance, as bearing on the forthcoming corn season. For this reason I have to-day devoted, and may possibly from time to time devote a little space to the "Money Market." It will be seen that the Bank of England, by her improper intercourse and connection with the state, has placed herself in the humiliating position of mere defence against two very powerful agents. The first, the Joint Stock Banks of England; the second, the monetary system of America, as growing up under her present Governmental policy. This is a subject that cannot be exhausted in a single letter, and I purpose to do no more at present than merely open the question—reserving to myself its discussion at such periods as my leisure permits. Those who have not given much attention to the matter may be informed that the system of banking by paper money commenced first in the world by the establishment of the Bank of England, in the year 1694; that this Bank was proposed to the merchants of London by a Mr. Paterson, an enterprising Scotchman, on a capital of 1,200,000l in 12,000 Shares, of 100l each; that it was originally conceived and set on foot for the benefit of *commerce*, but it was soon discovered by the powers of the day to be an admirable engine for political purposes; that it got a Charter, which in fact prevented any other Joint Stock Bank being established in England; that it was allowed by the Government from time to time to renew this Charter, and increase its capital, until it at last amounted to fourteen millions; that of this fourteen millions the whole of it is, and has been, lent to the Government according as it accumulated; that this Bank gradually extended its note issues through the medium of "Agents" in the principal Towns of England, until its circulation amounted to the enormous sum of 20 millions sterling; that these Agents, one by one withdrew from the mother Bank, and set up for themselves as Bankers, on their own account, with out any capital, issuing their own notes to an amazing amount, and getting possession of property of every kind; that some of the less prudent carried it with a high hand as regards personal expences,—some of them paying away many thousands in contested Elections; that prices of all our manufactured articles at several periods rose to a very high pitch, and consequently, foreigners who sold us their commodities, could not, in justice to themselves, take our commodities in exchange, but required bullion, with which

they could go to other markets and purchase 20 or 30 per cent. cheaper than in ours; that in these cases the demands set in on England for gold, and the Bank of England never having its capital available, it being always locked up in the hands of government—being itself the chief depository of the gold of the public, it was quite natural that to it all the applications for gold would be made, and its dependence on mere credit for the sustenance of a liability, ranging from twenty to five and thirty millions sterling, therefore brought it many times to a state of Bankruptcy, and upon every such occasion it pulled down by its utter helplessness, hundreds of the little Bankers, and hundreds of thousands of the merchants. The writers of the day called upon the government for a dissolution of connection with the Bank, but, it would appear, without effect, as the uncommercial and injurious union continues to this day. That somewhere about the year 1824-5, a terrible convulsion occurred in England, by the sudden contracting of the issues of this Bank, that this contraction was the necessary and inevitable consequence of a previous over issue of the mother Bank and the private Banks—that when from the simple stupid management of the Bank of England, the foreign exchanges set in against this country in these ever-to-be-remembered years, it suddenly drew in its accommodation to the private Bankers, and that as many as 240 of these stopped payment within the short space of six months at one period, and seventy at another,—that though this calamity was terrible to a degree incalculable, yet it was a source of great profit to the Bank of England, because her notes were then for ever established as current coin in the minds of the people of England,—that while these revulsions were going on, the Ministry of the day becoming alarmed at the consequences which might ensue in permitting the manufacturing portion of the community to depend longer on the capricious accommodation of the Bank of England on the one hand, or the unsafe, and indeed dangerous nature of the accommodation offered by the private Banks on the other, consented to bring in a Bill, permitting Banks of more partners than six to be established in England, within 65 miles of London. The Scotch had from an early date the full benefit of unrestrained and unlimited Joint Stock Banking, and a calamity of such a nature as that I have glanced at, never happened in that country, though at the time I write, there are in that country, with its population of two millions and a half, five-and-thirty Joint Stock Banks, some with ten, some with twenty, and some with forty branches. Well, at this time of commercial convulsion, it was deemed advisable to allow the Scotch system a trial in England, and the consequence was the establishment of several wealthy and influential Joint Stock Banks. For the first three or four years, the public hardly understood the system, and tendered little of their confidence to the new money masters, but at length the system worked its way, and one Joint Stock Bank sprung up after the other, in quick succession, until there is not, at the present day, a county or district in England without its local Bank, based on a considerable Joint Subscribed capital, and on an extended local proprietary.—Here then is a new power springing up under the very nose of the Bank of England, greater than the Bank itself—and unknown to the previous commercial constitution—to meet this new order of things, the Bank had to bestir herself and look about for business; she accordingly established Branches in several parts of England, but the movement was late; already had large proprietary Banks been established, commanding an extensive note issue, aided



by the local Shareholders in each district; the notes of the Bank of England were met in every quarter, and turned in against her in the Exchanges. In this state of things, the Bank holding a rod of 14 millions of debt over the Government, I will not say obtained through the medium of Mr. Clay, a Committee to investigate the most private movements and management of the Joint Stock Banks. This was a blow levelled at the Joint Stock system, but how was it met? why, by the Banks throwing open their books—from which it appeared that there was established in England and Wales, since the year 1826, 86 Joint Stock Banks with Branches—based on a paid up capital of eight millions and upwards, subscribed by twenty-four thousand proprietors,—that the total issue of these Joint Stock Banks amounted to three millions, and their deposits to about four millions. The capital paid up by these twenty-four thousand proprietors amounts to eight millions against a liability of seven millions. The capital of the Bank of England is fourteen millions, against a liability of thirty millions. The private properties of these twenty-four thousand proprietors, being from amongst the leading members of the commercial and manufacturing community of England, cannot be worth less than one hundred and twenty millions—every shilling of which is a security to the public, for the liabilities of these Banks. The Bank of England has a Charter, which protects her partners from all liability, and prevents her paying anything more than may be found in her coffers; of the contents of these coffers, we have reported to us twenty-nine million of “securities,” but whether these securities consist of I. O. U's. of Mr. Chancellor of the Exchequer, or Mr. any body else, no man can tell. But, here we are now, to witness the battle of these two principles between the Joint Stock Banks and the Bank of England—the Bank has thrown out, and continues to throw out the best, in fact the *very* best bills, when bearing the endorsements of Joint Stock Banks—the very circumstance which would make the bill undoubted in the eyes of most men, is in the eyes of the Directors in the Bank parlour sufficient to cause their rejection; the Joint Stock Banks have no notion of giving up, or what would be the same thing, succumbing to the Bank, by issuing her paper and suppressing their own—consequently the war is raging and will rage. On the other hand, small notes have been just abolished in America, and several millions of gold and silver are required by that rising State, to supply the place of 5 dollar notes, equal to our one pound notes, which had been in circulation, and which are suppressed. Several loans have been contracted by the American agents here, to supply the States with the required quantity of the precious metals; the metals are consequently going out, and the Bank is every hour increasing her caution, and decreasing her discounts, thinking that she can by these means save her credit—but her credit will be saved not by these means, but by the general confidence of the country, in the present prosperous state of its trade and commerce.—The Bank may let out all her gold, and all her silver too, and the credit of the country will be yet sustained. However, our business at present is to guess at the effect this state of things may have on prices. I need not say that it is a most dangerous thing to hazard an opinion at this early period—so far as the “Money Market” is concerned, its present state is quite against a high range of prices; and, from all appearances, little improvement may be expected until Christmas passes, and the proceedings which Parliament may think proper to adopt become discernible—in the meantime, it may be no harm to look back at

the rates of Corn for a few years past, that we may keep in mind what has been doing—I have taken the five weeks of September in the following years, to guide us as to the opening prices, and shall only remark to-day that we have a full average crop of *well-secured* wheat in England—a tolerable one of barley—a middling one of Oats—and a miserable one of Beans, Peas, &c. In Ireland and Scotland there is much yet to be secured; but the past three weeks, with the exception of two days, have been very favourable, and though there may be a proportion of early gathering in bad condition, and even damaged, yet such will do for distillation as well, or nearly as well as better saved corn. In addition to this, it must be kept in view, that there is really a *surplus* of old wheat in England, the accumulation of two years; and that the Irish millers hold pretty fairly of last year's cheap wheat. On the other hand, there will be a good demand for Flour the ensuing season, though it may possibly be at low prices—but altogether, the prudent Irish miller has before him a fair prospect of a remunerating season for his capital and skill. Although an interference in favour of low prices may be gathered from reasoning, yet I would remark that there is no great reason to suppose that prices will go to the low extreme of last season.

The accounts from America, from every part of the States, acquaint us that the wheat crop will be but the third part of an average. It is calculated that the Americans will require two million of quarters of wheat to supply the deficiencies. There is no doubt but this demand will keep Wheat from falling to an extreme low average. It would pay the Irish exporter just now to ship wheat to New York, if he can have it dried and free on board at 20s per barrel. The price in the interior Irish markets is about 22s, and in the seaport markets, about 23s per barrel. A few heavy markets may push it down to 20s, but at that I dare say it would be safe to lay in.—*Mooney's Circular, Sept. 30.*

## TO THOMAS BENTLEY, ESQ.

HERMITAGE, ROCHESTER.

MY DEAR SIR,—I quite agree with you that the present Act of Parliament, for the settlement of Tithe, is not so satisfactory to the tithe-payer as he had a right to expect. But I differ from you in the utility of putting off the attempt to settle the question amicably under its provisions, with the hope that the legislature will rescind the act just passed. I have always maintained that it is impossible to settle this question permanently, except by the sale of all tithe, and to this it must come at last; but as that is a question involving so many others, I think no government could carry such a measure immediately. The people must previously be more alive to its necessity, and more agreed as to the details of the measure, than, as it appears to me, they now are. I hope, therefore, that both the tithe-payer and tithe-receiver will take advantage of the time allowed by the act, and endeavour to make an amicable arrangement, which shall as near as possible approximate a fair adjustment of this vexatious and difficult question.

I intend to make an attempt in my own parish to establish the following plan, which appears to me to meet many of the objections urged by both parties, and as it is possible the same ideas may not have struck my neighbours, I address this letter to you through the public press, in the hope that my plan may be of use in settling the question, as far as it

can be settled, under the present Act of Parliament.

The first step I propose to take, is to call a meeting of the tithe-payers and receivers under the provisions of the Act of Parliament. Next, such meeting is to choose and appoint a committee of management of not less three, or more than five.

II. To appoint one surveyor for the tithe-payers, and the tithe receivers also to appoint another. These surveyors to have power to call in a third if they do not agree.

III. Such surveyors are then to value all the land of the parish after the following manner; that is to say, they are to give answers to the following table of questions, taking each farm or holding separate.

How much tithe per acre ought the land to pay per annum

If Arable?
„ Meadow
„ Marsh
„ Wood
„ Hop Ground, 2 years, 3 years, and upwards
„ Orchard or Garden.

Supposing the parish to be a Rectory, the answers will be simple; supposing it to be a Vicarage, all that will be required is to fix how much the arable land should pay for great tithe, how much for small. The remainder come under one or other heads without difficulty.

IV. When this valuation is completed, the surveyors are to give to the committee their answers to the table of questions, and

V. The committee will then turn the sum per acre of each kind of cultivation into so many bushels or parts of bushels (fractions below half a gallon and a farthing to be omitted) of wheat, at the average price as fixed by the act, and when this is done, the committee will call a meeting of the tithe-payers and receivers and declare "that each occupier's tithe is to be so many bushels or parts of bushels of wheat per acre," and this document shall be copied and a copy placed in the parish Record Chest.

So far as to fixing what the *measure* of tithe should be. Next as regards the payment to the tithe-receiver.

1. On or before the first of June and first of December in each year, the tithe-payers are to send to the tithe-receivers a statement of the number of acres under the various heads, which he has in occupation, with his calculation of the number of bushels, &c. of wheat the tithe amounts to.

2. The tithe-receivers shall then make out an account according to the average price of wheat, of the six weeks preceding the first of June and first of December, and send it to each tithe-payer in the following week with a notice of the time and place of payment.

3. Such payment to be made as so fixed under the penalties of non-payment as fixed by the act.

4. Any disputes that may arise to be settled by the tithe commissioners.

5. This valuation not to be re-opened or altered for ten years; nor at that time unless by consent of two-thirds of the tithe-payers.

You will now perceive that my object is to establish a fixed *measure* of tithe of every description of agricultural produce, according to the value of the soil it grows upon; and that the value in money of such fixed measure is to be regulated by the value of wheat, according to the averages of certain periods, which I consider preferable to taking the average of wheat, barley, and oats. You may perhaps think this complicated at first, but I am sanguine enough to hope that it will not prove so; on the contrary, that it may smooth many of the difficulties which

beset the question. I consider it promises to be fair for all parties, as it will allow of any kind of cultivation the farmer may choose, whilst the tithe-receiver will also benefit or lose, in the same proportion as the cultivator, and both will be on a par, let the price of wheat be high or low.

That I may not be obscure, and that others may clearly understand the process by which I would commute the valuation into a corn tithe, and that again into money, I will suppose a case with the various prices, &c., taken at random.

The surveyors being appointed, proceed to their duty, and commence with Farm A, in the parish of B, occupied by C as tenant. Parish B a Rectory.

We, Richard Stokes and John Davis, being appointed by the tithe-payers and tithe-receivers of the Rectory of B, proceed to value the tithes on the Farm A, in the occupation of C, according to the table furnished us; and we find that the following would be a true and just value of the tithe of such Farm, as stated below:—

Arable Land	per Acre	s.	d.
Meadow	.....	2	6
Marsh	.....	3	0
Wood	.....	2	6
Hop Ground, 2 years	.....	5	0
3 years and upwards	.....	14	0
Orchard and Garden	.....	5	0

(Signed) RICHARD STOKES, } Surveyors.  
JOHN DAVIS, }

This return having been sent to the committee of management, it will be the business of the committee to turn that valuation into wheat, according to the average price of wheat for the time stated by the act, viz.: 7 years, and then to send it to the occupier of the farm.

Assuming, merely by way of illustration, that the average price of wheat per bushel is 6s. The fixed measure of tithe for Farm A will be as follows:—

Arable	per Acre	B.	G.
Meadow	.....	1	2½
Marsh	.....	0	3½
Wood	.....	0	4
Wood	.....	0	3½
Hop Ground, 2 years	.....	0	7½
3 years, and upwards	.....	2	2½
Orchard or Gardens	.....	0	7½

The next stage respects the payment in money to the tithe-receiver. For this purpose the occupier of the Farm A shall send to the tithe-receiver on or before the first day of June, and the first day of December, a statement of the cultivation of his Farm, after the following manner:—

Farm A. Parish B. Occupier C.

The following I declare to be a true and just statement of the number of Acres occupied by me, and of the different manner in which they are cultivated, with my calculation, according to the scale laid down, of the measure of tithe I have to pay.

ACRES.		q.	B.	G.	
100	Arable	16	3	2	
20	Meadow	1	0	6	
20	Marsh	1	2	0	
45	Wood	2	3	5½	
8	Hop Ground, 3 years	4	0	0	
3	Orchard and Garden	0	2	6½	
196		Total	25	4	4
		or half	12	6	2

This, then, is the permanent measure of the tithe of Farm A, for the half year, ending first of June, or first of December, (as it may be.)

Upon receiving this statement, the tithe-receiver is to make a calculation from the average price of wheat at Mark Lane, for the last six weeks preceding the first of June and December, (which I will call 47s per quarter), and send it to the occupier C, with a notice of where the money is to be paid. The money tithe therefore of Farm A, for the whole year, will be as follows:—

	£	s.	d.
25 Quarters, at 47s. . . . .	58	15	0
1 Bushels, at 5s. 10d. . . . .	1	3	4
4 Gallons, at 3 $\frac{3}{4}$ d. . . . .	0	2	11
Total	60	1	3

One half 30 0 7 $\frac{1}{2}$

being the tithe payable to the tithe-receiver, for the half-year ending June or December, (as it may be.)

Tables might easily be constructed, showing what the price would be at per gallon, bushel, and quarter, at any sum; as also the number of bushels, or parts of bushels per acre; thus enabling the tithe-payer at once to calculate the measure of tithe he has to pay, and the tithe-receiver the amount of such measure in money.

It cannot fail I think to strike you, that the object I aim at, is to do justice as far as possible to tithe-payer and tithe-receiver, that the former should be able to cultivate his land as he pleases, without paying more tithe than is just; and the latter should not lose by the change, from a lower to a higher scale of cultivation. I am not vain enough to suppose this plan faultless, but it has this one advantage, I think, over any I have yet heard of, it will be perfectly fair to both parties when once the Surveyor's valuation is made; and is so far better than that proposed by the Act, that it does not give a premium to the bad farmer, by taking the value of the tithe *paid* in the last seven years, as the standard; neither does it take from the lenient tithe-receiver what his just proportion ought to be.

Hoping that the ideas here thrown out may be of use in smoothing the rough points of this difficult question,

I remain, my dear Sir, with much esteem,  
Yours very faithfully,  
J. M. TYLDEN.

Milsted, 30th September, 1836.

**NORWAY AND ENGLISH MOWING.**—I amused myself yesterday evening by walking over my landlord's (an innkeeper's) farm. I suppose there may be about a hundred acres cleared of bushes, of which two-thirds at least are under grass, natural, not sown, and preserved for hay, which the people are now busy in making. As the land is dry, and has not been top-dressed, the quantity is very small in proportion to the extent; the natural grasses not attaining any length under such circumstances. The cutting is excellent. The ground is shaven as close as a gentleman's lawn or bowling-green. They use a shorter scythe-blade than we do. If one considers the length of our common scythe-blade, it will be evident that the heel of it only can cut close to the ground. The point and one-third of the blade are sticking up the air, and what is cut by that part is cut too high. Look at one of our mowers at work. It is evident that he cannot, without great exertion and fatigue, keep his scythe close to the ground for its whole length. The point is in the middle of the stems of grass, and is working to waste, especially at the end of his sweep; and if the point were prolonged in the direction in which the blade stands, it would be flourishing over his head. The short blade saves the ridiculous sweep or semicircle of our mowers, one-half of which is working to waste either of time or of grass. *Laing's Residence in Norway.*

**THE AGRICULTURAL COMMITTEES.**

TO THE EDITOR OF THE YORK CHRONICLE.

SIR,—The session of Parliament is closed, and so far as regards the farmer, nothing is effected. The agricultural committees of which our Whig ministers made such a boast, have ended in nothing. A mass of incongruous evidence is collected,—scarcely two witnesses have agreed upon one point, and no report that was hit upon by any one member of the committee could be agreed upon. All they could unanimously assent to was—silence! It suited ministers, who dared not fly in the face of the free traders; it agreed with the views of the advocates of a fluctuating duty, who would rather hide facts from the country than avow anything which may tend to render them unpopular: Mr. Hume, and those who would wish to see not a sheaf of corn grown in the country, are pleased; the farm monopolist is allowed to grasp his thousands of acres unmolested: and the advocates and enemies of an alteration of the currency, prefer that the evidence should go without note or comment, than suffer a defeat in the committee; all quite sure that, if any thing can completely baffle and mystify the farmers into quietness, it is the ignorant, subtle, and irreconcilable evidence given by so many bailiffs, &c., &c., that will effect the object.

But although they have consented to the decision of the committees, as being most favourable to their views, all are not satisfied as to the course they shall pursue in future—each party is plotting its own scheme to introduce “early next session,”—each will occupy considerable discussion, and the time will thus be consumed away in angry debate, until the near approach of shooting on the moors warns them they must use dispatch, and as usual hurry over the business of the session; when the probability is, that the result will be a parliamentary resolution, declaring that it will not interfere with the agricultural interest. A defeat so signal must weaken the influence of the farmers in the House,—divide them more and more out of it, when the opportunity of effecting a repeal of the corn laws will offer, and agriculture will slowly and gradually fall away, until our verdant fields, our playful flocks, our noble herds, shall disappear, and we shall become a nation of manufactories, steamers, gin shops, prisons, and workhouses; and share the fate of luxurious and artificial states of society.

But some may comfort themselves by thinking that the landowners will never submit to this;—no not so long as they have power,—not so long as they have great interests at stake in agriculture; but the former our democratic principles are rapidly sweeping away, and the latter the extensive embarkation of capital in railroads and joint stockeries, is rapidly lessening.

We may expect Mr. Cayle; making his motion on the currency,—the Marquis of Chandos on the malt tax,—Sir R. Peel on the county-rate,—and Mr. Spring Rice will point to the poor law act, and Lord J. Russell to the tithe act, as all the relief the agriculturists can receive or expect. The farmers will be told that as no two can agree as to the cause of their distress, the remedy is out of legislative reach. Things may go on a little longer—this will probably be the result if the former is not;—so long as the extraordinary prosperity of our manufactures cause a superfluous consumption, the farmer *may live*, but let once the slightest flag take place, and ruin must be the inevitable consequence. In either this case or the former, the prospect of the farmer is dreary in the extreme.

We may however be told, and shall be told, both

in and out of the senate, that the committee's not reporting is a proof that there is no distress. From the evidence, however, it appears that there are hundreds of acres of land, especially in Buckinghamshire, which *cannot be let at any rent whatever*; that the capital of the farmers is nearly all exhausted, and that a knowledge of this renders it difficult for the farmer to obtain credit. These facts cannot be controverted, but there are other certain signs of distress existing, which are too apparent. When the farmer thrives, he is a satisfied man, now he is the very reverse, he is clamorous for a reduction of rent,—he is anxious to reduce wages, he is grasping to obtain all the land he can in hopes of increasing as much as possible his means of obtaining a livelihood, and *that he may have a better chance of borrowing money*, he is pushing his corn to market early in the season, to pay his rent and wages, let the price be as it may; and, lastly he has become a warm politician,—no surer sign that his distress is urging him out of his sphere.

If therefore the farmers would have any measure adopted, they must agree upon some one; direct all their energies to that, and obtain it before they ask for more;—if it be less it may avert much future disappointment and distress;—the whole vacation is before them, and let all be in preparation that petitions may pour into the House at its opening, in such a manner as will overwhelm the opponents of British agriculture. W. E. N.

**HINTS TO AGRICULTURISTS.**—The harvest work in this district, and I believe all over Norway, is well done; and parts of their management might be adopted with advantage in our late districts, where so much grain is lost or damaged almost every autumn by wind or rain. For every ten sheaves a pole of light strong wood, about the thickness of the handle of a garden-rake, and about nine feet in length, is fixed in the ground by an iron-shod borer: it costs here almost nothing. A man sets two sheaves on the ground, against the stem, and impales all the rest upon the pole, one above the other, with the heads hanging downwards. The pole enters before the band of each sheaf, and comes out at the bottom; the sheaf is put on with a pitchfork, and a whole field is picketed in this way with the greatest ease and as fast as cut. The crop is in perfect safety as soon as it is on the poles; no rain or damp can heat or make it grow. Only a single sheaf is exposed to the wet. It hangs with its head downwards, is open on all sides to the air and wind, and thus dries as fast as the rain wets it. Gales of wind cannot shake it, making the heads of the sheaves dash against one another, which often happens to corn standing in stooks; there is also not half of the handling and pitching about of the sheaves as in our harvest work; in which each sheaf is first dragged to the stook, and afterwards thrown into the cart. Here a sledge or car, on low wheels, comes along, the pole, which is lifted with all its sheaves, and laid into it at once; and each pole, when in the barn, is a tally for a thrave of ten sheaves. The crop is all necessarily brought at once into large barns, on account of the deep snow in winter. The straw must be well withered and quite dry when housed, which without this plan could seldom be effected. The sheaves are somewhat less than ours. Shearers here make good work, cut low, and all back-handed; that is, they grasp the corn with the back of the left hand towards the hook, not the palm, as with us; thus only the stalks contained in the hand can be cut over at one stroke. With us much more, almost an armful, is pressed against the edge of the hook, and cut over, the greater part of which is strewed about the field, and lost in carrying to the band; for it is only what the grasp can manage that come safely to the sheaf.—*Laing's Residence in Norway.*

**GREAT SALE OF MR. MAYNARD'S SHORT-HORNED STOCK, &c., WITH THE NAMES OF THE PURCHASERS.**

The extensive sale of improved short horned cattle, the property of J. C. Maynard, Esq., of Hartley Hall, near Northallerton; commenced on Wednesday week, at that place; Mr. Wetherell, auctioneer. This sale had been looked forward to with much interest by the breeders and agriculturists, and it was attended by a most numerous and respectable company from all parts of the kingdom, and even from foreign parts. So great was the influx of visitors, that for the two nights preceding the sale, beds could scarcely be procured in the neighbourhood sufficient to accommodate the many gentlemen who were drawn together, and the sale presented a most animated and interesting spectacle. The following list will show the value in which the several lots were held. The sale of the sheep also was at prices proportionately high:—

COWS AND HEIFERS.		gs.
Cora, roan, 6 years old, by Sir Alexander—Mr. Watson	.....	33
Rosamond, red and white, 6 years old, by Jack Tar—Mr. Archbold	.....	25
Beauty, red roan, 6 years old, by Isaac—Mr. Wright	.....	50
Primrose, roan, 4 years old, by Mr. Booth's Jerry—Mr. Wright	.....	42
Aricula, roan, 6 years old, by Francisco—Mr. Watson	.....	50
White Rose, 6 years old, by Francisco—Mr. Dighton	.....	19
Crocus, roan, 7 years old, by Sir Thomas—Mr. Bolden	.....	43
Amelia, roan, 6 years old, by Sir Thomas—Mr. Fernie	.....	54
Sweetbriar, roan, 5 years old, by Matchem—Mr. Spearman	.....	28
Comedy, roan, 7 years old, by Francisco—Mr. Fernie	.....	34
Young Anna, roan, 8 years old, by Isaac—Mr. Watson	.....	58
Portia, roan, 16 years old, by Cato—Mr. Dighton	.....	27
Moss Rose, roan, 4 years old, by Matchem—Mr. Fox	.....	60
Hawthorn, red and white, 4 years old, by Matchem—Mr. Parkinson	.....	27
Lavender, roan, 4 years old, by Matchem—Mr. Fernie	.....	50
Osmunda, roan, 4 years old, by Burley—Mr. Fox	.....	70
Cypress, roan, 3 years old, by Young Matchem—Mr. Pym	.....	32
China Rose, red and white, 3 years old, by Young Matchem—Mr. Paley	.....	42
May Rose, roan, 3 years old, by Young Matchem—Mr. Fox	.....	103
Convolvulus, roan, 2 yrs old, by Young Matchem—Mr. Wentworth	.....	41
Eglantine, red and white, 3 years old, by Young Matchem—Mr. Fernie	.....	45
Cardamine, red, 3 years old, by Sir Thomas—Mr. Fernie	.....	48
Bee's Wing, red, 3 years old, by Sir Thomas—Mr. Fernie	.....	48
Mulberry, red and white, 3 years old, by Sir Thomas—Mr. Wentworth	.....	44
TWO YEAR OLD HEIFERS.		
Jonquille, roan, by Young Matchem—Lord Huntingfield	.....	40
Fornosa, roan, by Sir Thomas—Mr. Houlsworth	.....	38

Melissa, red, by Young Matchem—Mr. Wilkin- son .....	gs. 10
Cuckoo, dark roan, by Sir Robert—Mr. Sker- field .....	0
Acanthus, roan, by Sir Robert—Mr. Paley ...	30
Honeysuckle, roan, by Sir Robert—Mr. Watkin Rhoda, red, and white, by Young Matchem— Mr. Paley .....	20 31
Zilla, roan, by Young Matchem—Lord Hunt- ingfield .....	42
Paulina, red, by Sir Thomas—Mr. Paley ....	20
Columbine, roan, by Matchem the 3rd—Mr. Houlsworth .....	70
Queen of Trumps, roan, 2 years old in August, by Matchem the 3rd—Mr. Wilkinson .....	76
Theodosia, red and white, by Sir Thomas—Mr. Alington .....	25
Hyaecinth, roan, by Young Matchem ...	not sold.
Burletta, roan, by Young Matchem—Mr. Pym	42
Swallow, red and white, by Sir Thomas—Mr. Thompson .....	21
Maple, red, by Sir Thomas .....	not sold.

ONE YEAR OLD HEIFERS.

Geranium, roan, by Plenipo .....	not sold.
Flora, dark roan, by Ambo—Mr. Fernie .....	62
Princess Jemima, red, by Velocipede—Mr. Smith .....	20
Endive, white, by Velocipede—Mr. Parkinson	20
Rosanne, red, by Velocipede—Mr. Watson ...	36
Emma, white, by Velocipede—Mr. Milwood ..	27
Cowslip, red, by Velocipede—Mr. Smith .....	28
Cranberry, roan, by Velocipede—Mr. Went- worth .....	32
Julia, roan, by Velocipede—Mr. Fernie .....	20
Peony, red and white, by Velocipede—Mr. Johnson .....	30

HEIFER CALVES.

Diana, red and white, by Velocipede—Mr. Thompson .....	21
Prudence, roan, by Velocipede—Mr. Parkinson	27
Modesty, roan, by Velocipede—Mr. Milwood	35
Daphne, roan, by Velocipede—Mr. Bamblet ..	12
Venus, roan, by Velocipede—Mr. Houlsworth	40
Dido, red and white, by Velocipede—Mr. Paley .....	15
Pine Apple, red, by Plenipo—Mr. Milwood ..	21

BULLS.

Plenipo, roan, 3 years old, by Young Matchem —Mr. Smith .....	45
Velocipede, roan, 3 years old, by Young Matchem—Mr. Roe .....	160
General Chasse, roan, 2 years old, by Young Matchem—Mr. Lister .....	40
Tomboy, red and white, 1 year old, by Ambo— Mr. Booth .....	30
Chorister, roan, 1 year old, by Velocipede—Mr. Watson .....	95

BULL CALVES.

Halley's Comet, red and white, by Velocipede —Mr. Smith .....	120
Titus, red and white, by Plenipo—Mr. Dodds .	24
Antonio, roan, by Plenipo—Mr. Corner .....	100
Decius, roan, by Velocipede—Mr. Pearson ...	26
Harlequin, red roan, by Velocipede—Mr. Bolden .....	40
Amadis, roan, by Plenipo—Mr. Milwood .....	66
Gohannab, white, by Velocipede—Mr. Scorfield	13
Don Juan, red and white, by Velocipede—Mr. Scotton .....	14

ON THE COW CABBAGE.

TO THE EDITORS OF THE IRISH FARMER'S AND GAR-  
DENER'S MAGAZINE.

An article on the Cæsarian Waterloo Cow-Cab-  
bage from the writer of these lines, having been in-  
serted in your number (35) for September, he has  
to thank the conductors of *The Irish Farmer's and  
Gardener's Magazine* for the additional extracts ap-  
pended thereto, as giving further support to the  
object of the writer from its publication, viz : *that  
Mr. Fullard's Cæsarian Waterloo Cow-Cabbage and the  
Jersey Kale are identically the same.* It is particu-  
larly desirable that the readers of this magazine  
should bear in mind that the article is not pre-  
tended by its author to be based on his experience,  
but is only a reasonable deduction from what had  
been previously published: it has ever been his  
practice, and shall so continue to be, to offer  
nothing as fact of which he has not had positive  
experience.

When it is considered that Mr. Fullard disposes  
of his seeds at the enormous price of one shilling  
for each, and that *plants* fit for setting out can be  
had at the low price of five shillings by the hun-  
dred,—if these vegetables be in fact the same or  
nearly similar varieties—the proof that they are  
so, must tend much to the growth of what possibly  
may be a very advantageous addition to the Green  
Crop system.

There are some persons who roundly assert that  
the Waterloo Cæsarian Cow-Cabbage, now put  
forth in the London newspapers is identical with  
the Cæsarian Kale cultivated in this country for  
the last 20 or 30 years, the seed of which can be  
had at any seed shop; and this opinion is stated  
to be supported by very high authority, but from  
which authority the writer has the misfortune to  
differ. He has ever been disposed to doubt the  
grounds of his own opinion, and be greatly in-  
clined to adopt that of the distinguished and scien-  
tific botanist alluded to—but here let facts be  
stated. Cæsarian Kale has been grown by the au-  
thor, but he has not now the plant to institute a  
comparison: writing from recollection, he thinks  
the leaf of the Cæsarian Kale is acuminated, some-  
what resembling in shape and colour that of the  
cauliflower, while the plants from Mr. Fullard's  
seed, and seed imported from Jersey, not distin-  
guishable from each other, are almost circular and  
slightly scalloped. The Cæsarian Kale never has  
attained the size reported of the Jersey and Mr.  
Fullard's variety, a stalk of the former of which  
11½ feet in length is now in Mr. Lawson's Museum,  
Edinburgh, and plants of which are also exhibited  
at the Bedford Conservatory, Covent Garden—six  
feet high. There are some of the cabbages alluded  
to in the article in the September number,  
from Jersey seed, now growing in the garden of a  
neighbour of mine, which are of an appearance to-  
tally different from the Cæsarian Kale. With very  
great respect, therefore, for the opinions of those  
persons, it is more than probable they may be  
mistaken.

The seeds mentioned in the preceding number,  
to have been sown in July, (viz : Mr. Fullard's  
and the Jersey), are now very forward, and nearly  
fit for transplantation. On a very careful compa-  
rison no difference can be observed. The author  
has about 4,000 of the *Jersey variety*, the excess of  
which over the number necessary for his own use,  
is very earnestly sought after by persons desirous  
of ascertaining the utility of this extraordinary  
vegetable production. THOMAS DE RENZY,  
*Cronyhorn, Carnew, 8th September, 1836.*

## POPULATION AND AGRICULTURE IN NORWAY.

The extent of cultivation in the Strath of the Myosen, extending up to this village (Lille Hammer), surprised me. It is not merely a fringe between the hill and the shore, but reaches far back among the hills and over the summits of the ordinary heights. I would compare its breadth to that of Strathmore, in Forfarshire. The farming cannot be very bad, for the crops of oats, bere, and rye, are excellent. Potatoes, which appear to occupy the place of the turnip in our farming, are clean and well horse-hoed. Draining and clearing new land of roots of trees and stones, are going on in various quarters, and lime was laid out at one place for spreading. Farms appeared to be of various sizes; I observed many so large that a bell was used, as in Scotland, to call the labourers to and from their work, which shows a certain regularity in their operations. Some are so small as to have only a few sheaves of corn or a rig or two of potatoes scattered among the trunks of the trees. These appear occupied by the farm servants, or cottars, of the main farm, paying probably in work for their houses and lands, as in Scotland. Very good houses these are; loghouses of four rooms, and all with glass windows. The light does not come down the chimney or through a hole in the wall, shut up at night with an old hat or a pair of old breeches, as in some cottages in the county of Edinburgh. The division of the land among children appears not, during the thousand years it has been in operation, to have had the effect of reducing the landed properties to the *minimum* size that will barely support human existence. I have counted from five-and-twenty to forty cows upon farms, and that in a country in which the farmer must, for at least seven months in the year, have winter provender and houses provided for all the cattle. It is evident that some cause or other, operating on aggregation of landed property, counteracts the dividing effects of partition among children. That cause can be no other than what I have long conjectured would be effective in such a social arrangement, viz., that in a country where land is held not in tenancy merely as in Ireland, but in full ownership, its aggregation by the deaths of coheirs, and by the marriages of female heirs among the body of landowners will balance its subdivision by the equal succession of children. The whole mass of property will, I conceive, be found in such a state of society to consist of as many estates of the class of 1,000*l.*, as many of 100*l.*, as many of 10*l.* a year, at one period as at another. The state of Ireland is generally adduced as a proof of the evil which would result from the abolition of primogeniture. Then it is stated the sons of the peasant marry and settle upon a portion of the father's farm, itself originally too small for one family, and by this system of subdivision the whole class of peasantry is reduced to a lower state in respect of decencies, comforts, and enjoyments, than any population which is ranked within the pale of civilized life. It has always appeared to me, however, that the state of Ireland, instead of being a case in point, proves the very reverse. There the land and other property is not disseminated in ownership or in small portions among the mass of the inhabitants. It is notoriously held in very large masses by a very small proportion of the population. The peasantry having no property nor any reasonable prospect of ever possessing any, have not those tastes, habits, modes of thinking, prudence, and foresight, which accompany the possession of property, and which altogether form the true and natural check upon the tendency of popu-

lation to exceed the means of subsistence. The Irish peasant gratifies the natural propensity to marriage, precisely because being destitute of property and of its influences on the human mind, he has grown up to manhood without any restraining propensity.—*Laing's Norway.*

## THE TITHE COMMUTATION BILL INVESTIGATED.

TO THE EDITOR OF THE HERTFORD TIMES.

SIR,—Some men consider the Tithe Commutation Bill as a measure of strict justice between tithe-payer and tithe-receiver. In that opinion I differ with them, for the following reasons:—

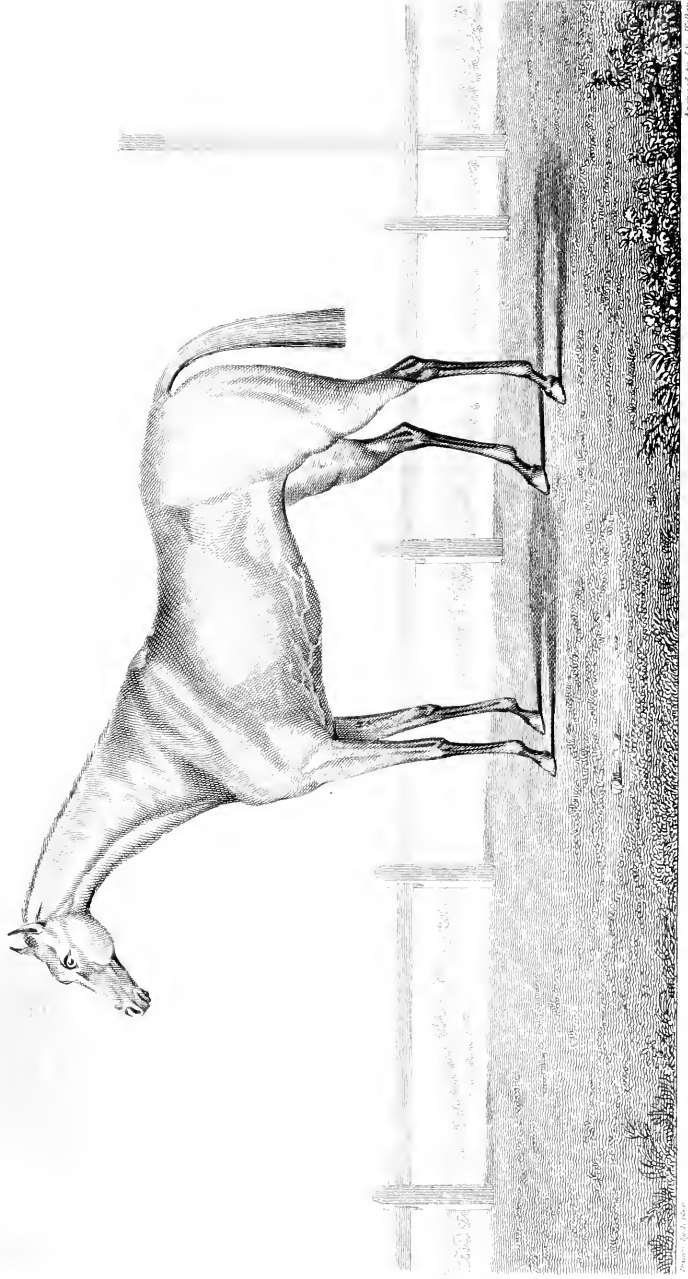
Is it just that the Tithe Commutation Bill should take from the land-owner the power of converting great tithe into small, without giving him any equivalent?

Is it just to take away all risk of the payment of tithe from the tithe-owner, and place that risk upon the land-owner without giving him any equivalent?

Is not the tithe annuity a great deal more valuable, if payable by the land-owner than by a land-occupier? Certainly it is. Suppose a tithe annuity of 100*l.* per annum is raised from arable land, this annuity could not be sold for more than from fifteen to twenty years purchase, that is 1500*l.* or 2000*l.*, suppose that annuity is converted into a rent charge upon the estate, it would be worth thirty year's purchase, or 3000*l.* To prove this, it is only necessary to refer to the old tithe laws. Under the old tithe law, the land-owner had the power of reducing a tithe annuity of 100*l.* to 50*l.*, by converting arable land into pasture land, if the utmost value of great or corn tithe was demanded by the tithe-owner, or, in other words, converting great tithe into small tithe, and reducing a fee-simple of 2000*l.* into a fee-simple of 1000*l.*, therefore it is very easy to comprehend how an annuity of 100*l.* arising out of the tithe under the old law was worth only 1500*l.* or 2000*l.*, shall, under the new law, be worth 3000*l.* There cannot be a doubt but that the fee-simple of tithe property throughout the kingdom will be increased in value from 25 to 30 per cent. by the operation of the Tithe Commutation Bill. I would appeal to any insurance office, in the habit of granting annuities, if this view of the case be not correct; all annuities are increased in value exactly in proportion to the diminution of the risk in the payment of the annuity; therefore it is evident that 70*l.* tithe annuity, under the new law, is as valuable as 100*l.* under the old law. Tithe is a *variable* not a *fixed annuity*, as it at present exists, therefore it is manifestly unjust to treat it as a fixed annuity, subject to no contingency. I admit it is very desirable for all classes of the community, and particularly for the agricultural portion of society, and also for the respectability and durability of the Established Church, that tithes should be commuted; but why should the land-owner and the land-occupier pay for all those advantages? Why should not the tithe-owner contribute his portion, for the immediate security given to his property by the payment being transferred from the land-occupier to the land-owner, &c.? The Tithe Commutation Bill is now the law of the land, but two years must elapse before the compulsory clause can be enforced; therefore we have abundance of time for the repeal of this law, and the passing of another more just in its enactments; but no time should be lost in petitioning the legislature to that effect.

A PRACTICAL AGRICULTURIST.





C Y P R I A N,  
Winner of the Oaks in 1830.

London: Published by J. Ferguson, 30vt. St. Martin's Lane.



## CYPRIAN ;

WINNER OF THE OAKS IN 1836.

*(Plate.)*

If, on the score of sagacity, the horse be inferior to that class of the brute creation which comes under the description of quadrumanous ; if he possess not the "half-reasoning of the elephant," or the still inferior capacity of the dog, it must be acknowledged that he is susceptible of friendship to a very considerable extent, and that he is also the most elegant quadruped in nature. To the Turf this country is indebted for a variety of the horse far superior to what can be found in any other part of the world : procured originally from the East, the English thorough-bred or courser presents an extraordinary proof of the wonderful effects of human genius in assisting the operations of Nature. The small, if not diminutive, animal found beneath the scorching heat of the tropics, by persevering industry, by care, and judicious management, attains a size far beyond original contemplation, preserving, at the same time, all those genuine qualities for which his progenitor is distinguished from all the other varieties of the tribe.

Cyprian is by Partisan, out of Frailty, by Filho da Puta, out of Agatha, by Orville, Star, Young Marske, &c. Cyprian ran third to Florentia at Northallerton, and won a stake at the last Catterick Meeting, beating Aveline. It was only a few weeks prior to Epsom Races that Cyprian appeared in the betting, having been kept quiet for the Oaks ; however, prior to the race, she stood at the head of the list, the decided favourite. Owing to the restiveness of Fair Jane, and particularly to bad management, uncommon delay took place at the starting post ; and, on account of this state of uncertainty, the pace at first was not brilliant : Cyprian, Destiny, Fair Jane, Promise, and Marmalade kept well together, till a short distance from home, when a very severe struggle ensued between Cyprian and Destiny, and the former proved successful, owing to the persevering jockeyship of Will Scott. Last year the Derby was won in much the same manner : Will Scott had measured the powers of Mundig, and on the day of trial contrived to make the most of them—to draw them out as fine as gold ; he had also ascertained the racing capabilities of Cyprian, and may be said to have proved successful from the accuracy of his judgment. The amount of the Oaks was 2,750*l*.

## DISEASES OF CATTLE GENERALLY.

*(ORIGINAL.)*

## No 1.—OF HORNED CATTLE.

I think in my last paper I urged, as an excuse for troubling the public with these papers, "the intention of benefiting the farmer ;" and, therefore, pursuing this intent, I shall not confine myself to the treatment of any particular kind of stock, but allow the word "Cattle," to embrace every species of live stock in the shape of quadrupeds, viz., horned cattle, horses, and sheep ; neither shall I consider any of these continuously, that is to say, I shall shortly send you "No. 1. of the Horse," and so on. I think it will be unnecessary for me to enter into any expla-

nation of my reason for adopting this mode of publication, since the simple consideration, that the principal stock of our farmers consists of horned cattle, another of horses, and a third of sheep, or more commonly in a combination of all three—will furnish it to every one.

So numerous are the diseases arising from the digestive organs not performing their proper functions that I shall now consider them ; 1st, as to their formation ; 2ndly, as to their individual uses ; and, 3dly, as to the principal cause of their action being impeded.

I trust the reader will excuse, in this instance, the occurrence of some anatomical terms : these must necessarily occur in the description of the parts now under consideration : however, they shall be made as plain as possible.

Every one knows that the cow is a ruminating animal, possessing four stomachs, and, in these particulars differing from the horse. The cow, from the capaciousness of her gullet, eats much more quickly, and in a greater quantity than the horse : at least, in a much coarser state. To remedy the evil that would necessarily arise from this quick swallowing of the food, nature has provided her with the means of returning the food from the first stomach, or rumen, to undergo, a second time, the process of mastication ; whilst this is going forward the animal is said to ruminate. This ruminating power is, however, insufficient to avert the evils which arise from the greedy feeding of the cow, or rather, it is not called into action, from the anxiety of the beast to satisfy its appetite on any favourite food or fresh rich pasture ; hence we have hoven, blasting, and that train of disorders.

It would be unnatural to suppose that a second and perfect mastication could be effected after the beast had eaten any dry food, as beans, &c., without the aid of some moisture ; and how rarely do we see a cow attempt to supply this moisture by drinking previous to lying down to ruminate. A considerate Creator has, however, furnished the animal with the means of supplying itself with a fluid to assist mastication. This fluid is secreted in greater and lesser quantities as the food may possess or lack moisture. The first stomach or rumen is covered exteriorly by the peritonæum, and lined internally by an insensible membrane on which are numerous small eminences : it also possesses the properties of distension and contraction to an extraordinary degree ; since, in cases of hoven, we find it so far distended as to occupy a situation immediately betwixt the last rib and the hip-bone, when its natural situation does not occupy more than one-half of the abdominal cavity. We also find crossing the rumen, exteriorly, several bands which appear to have the power of contracting, and by so doing, forcing the swallowed food in portions, a second time into the mouth, for the evident purpose of more perfect mastication. After each portion of food has been properly masticated, it is passed forward by the œsophagus, which in the cow is continuous, into the second stomach. I know of no more appropriate name for this stomach than the "Honey-comb stomach." The peculiar similitude which it bears to the honey-comb will serve to distinguish it from the others. The name, however, which anatomists apply to it, is the "Reticulum." This stomach, like the rumen, is covered interiorly with small eminences, which in all probability have a like use. Some writers have asserted that the animal possesses the power of closing the orifice leading from the first stomach into the second. It may possess the power of doing so, but I am very loth to believe it makes use of it : or of what use would the net-work be which

we find extending itself across the duct leading from the second stomach: and do we not here observe the wonderful power of a Creator! The first two stomachs being insensible to a very great extent, renders the injury inflicted by hardened substances very trifling; but, from the extreme sensibility of the fourth stomach, their occurring there, would be attended with very serious consequences. To prevent this danger, we find a net-work placed across the orifice leading from the two insensible stomachs into the sensitive one, of such perfect construction as even to stop nails and pins from entering the fourth stomach; neither am I aware of any hardened substance which had entered by the œsophagus ever being found in the fourth stomach, although balls which had evidently been formed there, were found to exist. If, then, the beast passed the food forward to the third and fourth stomachs, without allowing it to undergo the *straining*, as it were, it is highly probable that we should find hardened substances existing in the fourth stomach; but as this is not the case, we must conclude that though the beast possesses the power (which it is impossible to disprove,) it never exercises it.

So far I have given a description of the first and second stomachs, we will now proceed to the third and fourth.

The third stomach is termed by anatomists the many-plus; its form is globular when filled, its internal surface presents a most singular appearance, being furnished with a number of leaves; these leaves are covered with small eminences, differing in form from those observable in the first and second stomachs; the use of this bag, or third stomach, is to cause a further preparation of the food previous to its entering the fourth, or true digesting stomach. The fourth stomach is called the abomasum; in this stomach the process of digestion is completed, and here the separation of the chyle and chyme takes place. There are numerous absorbent vessels called lacteals, by which the chyle is taken up and conveyed to the heart, where the further process of mixing it with the blood takes place.

Numerous interesting experiments have been prosecuted to ascertain how far the blood is dependent for its purity and healthy circulation, on the food by which the animal is supported. These, however, are not necessary here further than proving to us, that wholesome food, and such as is easy of digestion, preserve the animal in a state of health. This must be clear to every one, when it is an undoubted fact that the *extract* of the food is conveyed to the heart, and mixed among the blood, which is the very source of life; at any rate, upon its healthy circulation depends health. If then the food contains any hurtful ingredient, and this, by extraction, be impregnated with the blood, of course the worst results will follow. I am aware that by analysis we can seldom discover the existence of this hurtful ingredient in the blood, even when the worst effects are manifesting themselves, from its being partaken of;—but at the same time, we must bear in mind in what various forms it may exist, and still elude our discovery; it may combine with some other ingredient, and thus become neutral, though this neutrality will not render its effect neutral, though it may lessen it; it may evaporate by gas;—but independent of all this, we are perfectly aware that the quality of that secretion called milk, is materially changed by the food on which the cow subsists. I therefore argue that, as like causes, similarly acted upon, produce like effects, the blood contains a large portion of any noxious ingredient that may be conveyed into the system in the

shape of food, however undiscoverable it may be by analysis.

Having now considered the first two parts of our subject, (the formation and individual uses of the digestive organs,) I do not here include the liver, the kidneys, &c. &c., whose secretions so materially assist digestion—a description of which appears as each is treated upon) we now come to the fourth division, the *principal* cause of their functions being imperfect. This I attribute, as the reader will anticipate, to diet, and I by no means deny the effect of atmospheric changes on the constitution of Horned Cattle; but I will assert, that whatever diseases arise which are not constitutional, and these to a great extent, are produced by our mismanagement. It clearly appears that the digestive system is dependent for the performance of its functions to the nervous energy of the animal; if this becomes depressed, of course it follows that digestion is impeded. It therefore behoves us to preserve, as far as we are able, the nervous system in a healthy state, and by so doing we shall prevent, in a very great measure, indigestion in the cow.

Much injury undoubtedly arises from the animals being allowed to partake of unwholesome water;—this is a circumstance to which the farmers generally pay too little attention. Whether this is to be attributed to negligence, or ignorance of its ill effect, I am unable to determine; at any rate, I think if they were to consider the noxious substances which their cattle drink in extract, they would not treat the subject with such slight attention. However wholesome the food may be on which we feed our cattle, the impure state of the diluent will render it of little service. Numerous cases might be brought forward in proof of various diseases having arisen from animals having partaken of unwholesome water. I attribute red-water, in seven cases out of ten, to this cause, but so negligent and careless do the farmers appear of the prevention of these ill effects, that they allow their stock to quench their thirst from the drainings of dung-hills and stagnant fetid pools; and singular as it may appear, a beast that has been accustomed to this water, or rather extract of refuse, prefers it to the purest running stream, and will only drink of the latter from mere necessity. To these two causes, improper food and water, I attribute the principal derangement of the digestive powers of the cow. I have thus slightly described the process the food must undergo previous to its being rendered of such a form as enables the absorbents to take up that part which is necessary for them as maintenance of life. The reader would feel fatigued if I allowed this paper to extend to a greater length; I have therefore been obliged to confine my subject as much as possible, and some may think I have been too brief on so important a part of my papers;—this, perhaps, may be the case, though I trust I have stated at sufficient length what is requisite for my purpose. However, if I have done so, it is a fault easily remedied; not so, if I had tired the patience of the reader.

Your obedient servant,  
AGRICOLA.

TARTARY OATS.—A correspondent informs us, that crossing a field of Tartary oats a few days ago, in the parish of Holme-upon-Spalding Moor, he was led by curiosity to approach a cluster of stems growing very conspicuously at a distance. On examination, he found that there were nine stems growing from one single grain, and which bore altogether, upwards of 2000 grains. Four of the stems were four feet ten inches long, and the others were nearly of the same length.—*York Courier*.

## TANKS.

The fourth anniversary of the Royal Polytechnic Society of Cornwall was attended by several Professors and scientific men, who after examination of the Prize Models, expressed their admiration of the practical application by operative miners in this remote portion of the Empire, of those scientific principles on which it was their department at our Universities to Lecture. But as the success of the machinery for draining the mines sometimes deprived both men and cattle of that supply of good water which contributes to health and comfort—it was suggested this might be remedied by tanks similar to nine which had been eminently useful during the late three dry summers on the property of the President of this Society in Sussex, and as they are cheaply and easily constructed, and not liable to decay like wooden vessels, and as rain enough falls on every house in England for the use of its inhabitants, no family could be deficient in good soft water, who made a tank to *retain* it, and such tanks being paved over, take up no room.

The sizes at East Bourn vary, one of less than seven feet deep and wide has served two labourers' families for three years, whilst most of the springs in the neighbourhood were dry.

A tank twelve feet by seven feet has been found sufficient to supply with water a large family and six horses; this was surrounded by only four-and-half inch brick work resting solid against the sides, in consequence of being like a decanter smaller at the bottom than higher up, and the dome is constructed on the Egyptian plan by projecting horizontally each row of materials one-third of their length beyond those below, by filling up the back with earth as it proceeded to balance the weight of this projecting masonry.

At the East Bourn workhouse for 14 parishes, a tank has been made 23 feet deep by 11 wide of the roughest materials, being only flint stones, and though they require more mortar than if they had been regularly shaped, only 90 bushels of lime were allowed, including two coats of plaster, and the workmanship is executed like field walls at 10s per 100 square feet, the only essential being that no clay be used (which worms in time bore *through*) and that the lime or Parker's cement be good.

A current of air is said to promote the purity of water in tanks, which is easily effected by the earthenware or other pipe which conveys the water from the roof being of 6 or 8 inches in diameter and an opening left for the surplus water to run away, and where the prevailing winds do not blow soot and leaves on the house, the water remains good, even for drinking, without clearing out the rubbish more than once a year; but in some cases filtering by ascension may be found useful, and effected by the water being delivered by the pipe at the bottom of a cask or other vessel from which it cannot escape till it has risen through the holes in a board covered with pebbles, sand, or powdered charcoal.

Upwards of 20 labourers' gardens have been watered by the rain which formerly injured the public road, and was therefore turned into a sink well, which sink well, enlarged and surrounded by nine-inch masonry drawn up by a *cast iron curb*—was used in planting potatoes, and occasioned good crops in 1835, when sets not watered failed. And should the profitable mode of *stall feeding* now practising at Armagh be lappily extended to Cornwall, and that fattening oxen are kept *in pairs not tied up under shelter*, it will be found that preserving in tanks the water which falls on the barns and stalls will amply supply

them, whilst it saves the rain washing away the strength of the manure in the open yard.

Ponds have been made with equal success, dug four-and-half feet only below the surface, what is excavated being added to the sides covered and about one foot thick like a road with pebbles and good lime mortar. Such ponds are become general on the dry soil of the South Downs for watering the large flocks of sheep—and had such ponds been found in Romney Marsh, &c. during the last dry years, the sheep would not have died in such numbers as materially raised the price of meat in London, and would have raised it much higher if the large premiums given for many years by the Agricultural Society of Scotland had not enabled North Britain to supply a great proportion of the sheep, as well as oxen and oats consumed in London.

The improvements in husbandry by which this has been effected are detailed in the Quarterly Journals and prize essays of the Agricultural Society of Scotland, and to circulate these many agricultural half-crown book clubs have been formed by farmers in South Britain, "who wish to *know* how it is the Scotch are thriving," as much in agriculture as manufactures. The last Quarterly Journal recommends that such book-clubs should become general; they are patronized by the Earl of Burlington, whose property extends from Sussex to Lancashire, and the 32nd number to be had of Cadell, London, states that at the agricultural meeting in October last 325l were received for witnessing the delivery of the premiums, which are this year liberally thrown open to the whole of the United Kingdom.

Sept. 4, 1836.

USE OF BONES AS MANURE.—The employment of crushed bones as a fertilizing substance is not of a very ancient date, it was not one of the manures even mentioned by the early Agricultural writers, and for this disuse of bones several causes contributed. The necessary machinery for crushing them was, in the early ages of the world, totally unknown; and bones, when uncrushed, dissolve in the soil far too gradually to be of any striking immediate value as a fertilizer. It is a fact, that the refuse matters produced by the ivory and bone turners and cutlers, when the manufactories of Sheffield began to flourish and abound, soon accumulated in considerable heaps around the turners' shops, and this drew the Yorkshire farmers' attention to bone manure, and not till the close of the 18th century did the cultivators of the poor soils in the neighbourhood of that town begin to use those refuse matters for that purpose, which, first of all, the turners were glad to be relieved from by the farmers taking the trouble to carry away, but after a time a small charge was made per load which has gradually risen in amount. In the last twenty-five years, therefore, the consumption of crushed bones has been steadily increasing, but still it may be even now a mystery to many intelligent farmers, how pulverised bones can be good manure, and it may not be amiss to inform our readers, in general terms, that the component parts of this manure are all valuable substances in promoting the growth of vegetables—that the component parts of the bones are also the constituent ingredients in almost all vegetable substances, and that it is not the oily and other merely animal matters of the bones to which they owe their fertilizing properties; but that it is their earthy and saline matters to which the benefit must be with far greater justice attributed. In our next communication, if space will allow, and the information be thought valuable, we will give an outline of some of the experiments that have been already made in the use of this manure, together with the mode and effect of employing it, and some general directions.—*Sherborne Journal*.

## MALT LAWS.

MR. EDITOR,—I beg to enclose for the benefit of those connected with the malt trade, an abstract of the new Bill, brought in at the close of the last session, by the Right Hon. the Chancellor of the Exchequer and Mr. Baring, and intended to be passed into law early next session. The alterations are important and liberal, as well to the public as the manufacturing maltster. One of the alterations proposed has the effect of reducing the malt tax nearly 60,000*l*. per annum, and the other regulation gives great liberty and relief to the maltster.

Some idea may be formed of the oppressive state of the fiscal regulations contained in the malt laws previous to 1830, as in that year, at the instance of the Maltsters' Association, nearly two-thirds of the restrictions and penalties were repealed, and by this new Bill great additional relief will be given.

I am, Mr. Editor, your obdt. humble servt.  
W. F.  
London, Sept.

PS.—In 1830 the word "*conclusive*," in the 5th clause, was greatly objected to (and was promised to be omitted), inasmuch as it gives no discretionary power to the magistrates.

"1. 7th and 8th Geo. 4, c. 17, and 11th Geo. 4, c. 17, s. 3, regulating the keeping a barley book—repealed.

"2. All notices required to be given by maltsters, and the time of giving such notices, to be the same as required by existing laws for maltsters situate in a city.

"3. 7th and 8th Geo. 4, c. 52, s. 34, relating to compressed cistern or couch—repealed.

"4. 11th Geo. 4, c. 17, s. 17, relating to compressed corn in cistern or couch—repealed.

"5. New regulations proposed in lieu of the above 3 and 4—That in the event of suspected compression the officer shall throw out, or cause to be thrown out, all such corn, and return all such corn into cistern or couch from whence thrown; and if any increase shall be found over and above the former gauge in any greater proportion than those of five bushels in every one hundred bushels previous to the corn being emptied from cistern eight hours; or six bushels in every one hundred, if emptied from cistern eight hours, and not emptied sixteen hours, or seven bushels in every one hundred bushels; if emptied sixteen hours or upwards, the increase so respectively found to be deemed *conclusive* evidence of been forced or trodden. The penalty imposed as in 7 and 8 Geo. 4,—and any other evidence of forcing allowed.

"6. 11 Geo. 4, c. 17, s. 18, relating to time of sprinkling—REPEALED.

"7. New Regulations relating to sprinkling.—If corn be kept covered with water 50 hours, and no corn in same malt house that has been less than 50 hours covered with water, may wet or sprinkle at the expiration of six days, on giving 24 hours' notice to officer before wetting or sprinkling the same; but if sprinkled before 12 days, except under above regulations, to be liable to penalties imposed by 7 and 8 Geo. 4.

"8. 11 Geo. 4, c. 17, s. 21, relating to 17½ per cent. allowance for swell in couch—REPEALED.

"9. New regulations relating to allowance for swell.—There shall be allowed during the corn being in cistern, or 26 hours after being emptied into couch, 18½ per cent., and if not gauged or taken account of in couch previous to 26 hours, then, after the expiration of 30 hours, an allowance shall be

made of *one-half* before the corn is dried off and re-made from kiln.

"10. New regulation relating to number of floor, or quantities of corn in operation, existing law allows only five floors; new regulation proposes six floors.

"11. New regulation.—That officer shall upon each wetting being dried off into malt, and removed from kiln, enter on the specimen the number of bushels of malt with which the maltster shall be chargeable on such wetting, showing in such entry whether such charge has arisen from the cistern, couch, floor, or kiln."

SODA BREAD.—A correspondent of the *Newry Telegraph* gives the following receipt for making "soda bread," stating that "there is no bread to be had equal to it for invigorating the body, promoting digestion, strengthening the stomach, and improving the state of the bowels." He says, "put a pound and a half of good wheat meal into a large bowl, mix with it two teaspoonfuls of finely powdered salt, then take a large teaspoonful of super-carbonate of soda, dissolve it in half a tea-cupful of cold water, and add it to the meal; rub up all intimately together, then pour into the bowl as much very sour buttermilk as will make the whole into soft dough (it should be as soft as could possibly be handled, and the softer the better,) form it into a cake of about an inch thickness, and put it into a flat Dutch oven or frying-pan, with some metallic cover, such as an oven-lid or griddle, apply a moderate heat underneath for twenty minutes, then lay some clear live coals upon the lid, and keep it so for half an hour longer (the under heat being allowed to fall off gradually for the last fifteen minutes), taking off the cover occasionally to see that it does not burn. This, he concludes, when somewhat cooled and moderately buttered, is as wholesome food as ever entered man's stomach. Wm. Clacker, Esq., of Gosford, has ordered a sample of the bread to be prepared, and a quantity of the meal to be kept for sale at the Market-hill Temperance Soup and Coffee Rooms.

INGENIOUS SPADE.—An ingenious spade has lately been invented by Mr. Hugh Calderwood Blackbyres, Kenwick, Ayrshire, for cutting draining tiles of peat. The instrument is worked very easily, and forms the tile with one cut of the spade; the tiles being cut one out of the other expeditiously, and without waste of material. Their shape is something like clay tiles, but more massy. They are dried in the sun during summer, lying flat on the ground, and may be stacked like peats, ready for use when required. When properly dried and hardened, wetness will not soften or decompose them. Peats are frequently found in mosses which have been buried long ago by accident, still hard and fresh; and those that have been used for draining upwards of thirty years ago, have been taken out of the drains unimpaired and solid. It has even been asserted, that a well dried peat has been boiled for six months in a boiler at Catrie Cotton-works, which was taken out after that period solid and uninjured. There is no doubt, however, of the capability of dried peat to resist moisture. The large stacks of peat formed for the use of families in Ireland, where coal is unuseable or scarce, are never thatched. The invention of this spade tends to render draining of moorish land more practicable than hitherto, as with it a farmer may cast two or three thousand tiles a-day, within a very short distance of the ground he intends to drain, at one-fourth or one-fifth less expense than he could furnish himself with the same number of clay tiles; the frequent want of clay in such districts rendering the manufacture of clay tiles at hand impossible; and the cartage of them from the kiln to a great distance to the land is at all times an expensive operation. When laid in the trench, the peat tiles are placed with their grooved faces opposite each other, one of them serving as a sole.—*Glasgow Evening Post*.

## REFORM DINNER—HAMPSHIRE.

The following after-dinner-speeches, being upon subjects unconnected with politics, will be found of general interest:—

The dinner took place in the ball room of the George, where a large company sat down at five o'clock.

Mr. Shaw Lefevre in the chair; and Mr. Marsh in the vice-chair.

After the cloth had been removed, and the usual number of loyal toasts proposed from the Chair,

Mr. MANSFELD said, that he had now the agreeable duty to perform of giving "The health of the Members of the northern division of Hants." (*Loud cheers.*) They owed much to their exertions, but particularly to those of the hon. gentlemen which had been devoted to their agricultural relations (*hear, hear*); but he felt bound to say, that although he would give those exertions all the praise they deserved, yet that hon. gentleman did not, in his opinion, go far enough; and he (Mr. Marsh) desired to drag him still further. (*Hear.*) His hon. friend, in the report he had drawn up, had given the farmers but cold comfort when he told them that if they had skill, energy, and capital, and exercised them, they would do well. (*Hear.*) Now, he believed that the farmers of the country had both skill and energy, but he would ask where the capital was to come from? (*Hear.*) His hon. friend also advocated the repeal of the half of the malt tax, but he (Mr. Marsh) would say, that if that only was repealed, the expensive machinery employed in the collection of the remainder would be still the same as before. (*Hear.*) His hon. friend may say that he (Mr. Marsh) was a currency quack, but since that confiscatory measure called Peel's Bill had passed, the capital of the farmer had become dilapidated, and the only means of relief that could be administered to the agriculturists was either to bolster up the industry of the farmer to the amount of his burdens, or to reduce his burdens to a level with the produce of his industry. (*Hear.*) His friend, however, would tell them that the currency question could not now be touched, and if not, then the burdens upon the farmer should be reduced, and this could only be done by a revision of the entire system of taxation; and he contended that the *millionaire* and the absentee should be more highly, and the farmers less extensively, taxed, and that thus the latter would have a sufficiency for themselves, and a superfluity to the country. (*Hear, hear.*) He would be glad to hear his hon. friend's opinions on these points, and, meanwhile, he had great pleasure in proposing his health, and that of his colleagues. (*Loud cheers.*)

Mr. LEFEVRE returned thanks in an eloquent speech, in the course of which he observed that he was convinced that the repeal of Peel's Bill would have no effect in supplying capital to the farmer. He knew that the agriculturists had lost money in consequence of that measure, but even more mischief would result from any effort to retrace our steps. (*Cheers.*) When he sought and recommended a repeal of one-half the malt-tax, he did so with the sanction of a commission, of which Sir Henry Parnell was the head, and he knew that that reduction could take place and the revenue not suffer, if a reduction in the price of foreign barley was made at the same time. (*Hear, and cheers.*) Then in respect to the property-tax, which was advocated by his friend Mr. Marsh, he (Mr. Lefevre) was one of the same opinion, but upon examination he found that instead of such a tax affecting the *millionaire*, it would affect those individuals of the middle classes whose savings were vested in the funds, and who were the principal fundholders; for he found in consequence of a return for which he moved two years ago, that of 130,000 persons receiving dividends from the funds, at least 100,000 did not receive from them more than 10*l* a year; therefore it was not upon the *millionaire* the burden of a tax upon funded property would fall, but upon the middle classes, who had invested their savings in the funds. (*Hear.*) Besides

this, the effect of a property-tax upon the manufacturing interests would be deplorable, and would have the effect of driving the manufacturers and operatives of this country to the Continent and to America (*hear, hear*;) and they had now passed the Rubicon, and it did not remain to be decided whether this was an agricultural or a manufacturing country (*hear, hear*;) but they might rest assured that as long as manufactures flourished in Great Britain, so long would agriculture flourish with it; and whilst the population of England remained at its present extent, it was the duty of the Government to encourage the manufacturing interests, for those of agriculture would necessarily flourish in consequence, and the best prices be obtained for their fat stock and their malt and wheat. (*Cheers.*) He was sure then it would be allowed that nothing could be so mischievous as to damage the manufacturing interests, and drive the operatives to other countries. (*Cheers.*) As to the machinery for the collection of the remaining half of the malt-tax, which he proposed should remain, being expensive, it would be a mere nothing when compared with the reduction of the other moiety of the tax; and he had every reason to hope that the day was not far distant when the agricultural interests of the country would be as prosperous as ever. Scotland, which was more heavily burdened as regarded rent and rates, was in a high state of prosperity; and every witness examined before the agricultural committee last session stated that they had been in a high state of prosperity for the last four years. (*Hear, hear.*) What reason, then, was there for the depression in England? (*Hear, hear.*) He thought that if the farmers exerted themselves, and looked more to their own resources, and not to the belief, as they had been taught to do, that Parliament could save them, the result would be different from the circumstances in which the agricultural interests were now placed. (*Hear, and loud cheers.*) The hon. gentleman concluded by thanking them for the honour they had conferred on him.

Mr. SCOTT, in returning thanks, said that he agreed altogether with what had been stated by his hon. friend and colleague. (*Cheers.*) He had been recently through Scotland, making himself acquainted with the means through which the farmers there had so much improved their condition, and he found that these results had proceeded from their industry and economy, which he was persuaded did much more for them than any legislative measures could do. (*Hear, hear, hear.*) He intended to try their system himself, in order to afford a practical example of what he had seen in that country, where, instead of two horses to their plough, and three or four to their carts, they made one answer their purpose where one could do so, and where a rigid system of agricultural economy was observed. (*Hear, hear.*) He hoped that this example would soon be followed in this country, and prosperity would instantly follow. (*Cheers.*)

WASTE LANDS.—A very forcible exposition has been put forth of the advantages which would result from cultivating waste lands in Ireland. It is urged that emigrations to Australia and Canada might be superseded with a great saving to the State, and much benefit to the individuals. The Anglesea road from Newport to Thurles affords evidence of this. The sides of the mountains spontaneously irrigated would yield a splendid return for cultivation; yet here a large tract of land is almost wholly unimproved. It has been suggested that the settler or tenant should be assisted to build himself a stone cottage. Supposing the landlord to advance 5*l* for a farm of twenty acres, each tenant would then have to pay 5*s* yearly as interest besides rent; but for the first seven years no rent is to be claimed; the surplus produce in each year being laid out to improve the land. At the end of seven years, rent to commence at 1*s* per annum, which is to increase 1*s* every future year till the end of the lease, which is to terminate in twenty-one years. An experiment already made on this principle has been completely successful as far as it has been tried.

## REPORTS ON THE EPIDEMIC CATARRH, OR INFLUENZA,

PREVAILING AMONG THE SHEEP IN THE COLONY  
OF NEW SOUTH WALES, IN THE YEAR 1835.

By Messrs. BENNETT, GIBSON, and SHERWIN.

(From the *Veterinarian*.)

(We make no apology for the length to which these Reports extend, nor for substituting them for a Lecture in the present Number, for they have reference to a subject interesting to the British as well as the Colonial Agriculturist, and especially so to the veterinary practitioner. We are indebted to the kindness of Mr. Owen, the truly scientific curator of the Museum at the College of Surgeons, for the power of inserting these valuable documents.—Y.]

### REPORT.

By GEORGE BENNETT, Esq. M.R.C.S., F.L.S., &c.  
Sidney.

The first account I received of the appearance of the present epidemic in the colony was among the flocks of Robert Campbell, Esq., at Burrowa, about the middle of June 1834. The winter months previously had been very dry, with severe frosts; and, rain setting in, the sheep were attacked with the present epidemic. The deaths were numerous until about the middle of August, when they gradually diminished, fine mild weather setting in about this time. The mortality in Mr. Campbell's flock was as follows:—

Out of 700 wethers.....	400	died
— 2,600 breeding ewes	1,600	—
— 900 weaned lambs	500	—

No. of sheep . . . . . 4,200      Total loss 2,500

It is impossible to ascertain the precise number that died in the colony, but it was considerably more than seven thousand.

The character of the runs upon which the sheep fed was that of lofty ranges abounding in excellent pasturage and good water. The sheep, it may also be remarked, had depastured in the same locality for five or six years, and remained perfectly healthy. When the sheep were first attacked with the disease they were removed to another run, without any diminution of the severity of the disease.

**SYMPTOMS.**—The first observation I had of this disease led me to divide it into three stages; but as I wish to impress on the mind of the reader the importance of selecting and treating the sheep in the first stage of the malady, it may be of consequence to remark, that a careful observer may distinguish a sheep attacked by the disease nearly 36 hours before its ceasing to feed, by sneezing, and before it has exhibited any of the more marked symptoms which are placed under the first stage of the disease.

The disease commences with sneezing, more particularly at night, followed by general lassitude; and although at first the secretion from the nostrils merely bedews the surface, yet it soon becomes of a thick glairy consistence, and is secreted in a large quantity. The interior of the nose at this stage exhibits but little increase of vascularity. The eyes are suffused, and in some instances there is a profuse discharge of tears; in others, again, a discharge of matter from the meibomian glands is also observed, encrusting the eyelids. The animals cease to ruminate, and droop

the head. In some the respiration is affected as soon as the attack comes on. The tongue is parched, the secretions are diminished, except in the inflamed membranes; perspiration is obstructed, and general fever accompanies the attack. A restlessness is also perceived in the animals.

As the disease advances to the second stage, which varies in duration from four to twelve hours, all the foregoing symptoms increase in violence. The interior of the nose exhibits a florid hue, as if all the bloodvessels had been filled with minute injection; the secretion from the nostrils now becomes thick, of a yellow colour, and frequently hardens upon the orifices of the nostrils, impeding respiration.

The general fever is much increased; there is suppression of urine in many cases; costiveness is also occasionally observed, but is far from being general. The *tunica conjunctiva* of the eye displays an inflammatory character. There is a heaviness in the head, and an apparent desire on the part of the animal to rest the head on the hurdles, evidently appearing to suffer much pain. The respiration becomes more laboured, and a cough is also occasionally perceived.

The disease now advances to the third and last stage, in which the interior of the nostrils exhibit the highest state of inflammation (some parts displaying a leaden hue), and extending to the frontal sinuses; the secretion from the nose becomes lessened, very thick, and occasionally streaked with blood. The nostrils appear obstructed by the matter collected about them, occasioning a very laboured respiration. The animal now prefers lying down, and rests the head upon the ground; there is sometimes a troublesome cough; but a cough is found to prevail even in the animals recovering from the disease, and yet in many, again, the cough is not at any time observed as a symptom. The eye becomes glassy; the animals appear stupid, and unable to direct their steps; if permitted to leave the fold, they walk against a tree, or into a water-hole.

This stage may be considered as fatal; and as death advances, irregular but voluntary movements frequently continue; the appearance of dullness and stupor is increased, and there is a general diminution of sensibility. A general trembling is now observed in the animal, more especially in the fore extremities; it kneels down, remains for about the space of a minute in that position, falls down comatose, and after repeated struggles, and sometimes with a very laboured respiration, expires.

The length of time occupied by the disease in running through its different stages, or the intervals of time which elapse between each stage, varies. In some of the sheep attacked by this epidemic death has occurred in six hours after the first appearance of the symptoms; sometimes in twelve hours, and sometimes the animal lingered on until the third day; if he lived beyond that time, he usually recovered.

It has been remarked, that in the second and third stages the nostrils and face are much swollen; there is also a tumefaction of the lips, and in many I have observed an enlargement of the submaxillary glands. In some of the sheep the discharge was only observed to proceed from one nostril, in the first and second stages; but in the third stage the discharge has flowed from both; the animal at the time usually inclines its body to the side whence the discharge proceeds; the highly inflammatory state of the nostrils is as much ob-

served in this, as in that form of the disease in which the discharge proceeds equally from both nostrils.

A favourable prognosis may be formed when the animal commences eating, raises its head, and appears more lively; all these symptoms indicate returning good health; and I have observed the disease in some sheep pass through the different stages in a very mild manner. It is a curious fact, that, although bleeding the ewes in lamb was found to produce premature labour, yet the disease or high fever which accompanied it, when bleeding had been resorted to, seemed to produce the same effect in many of the ewes, several of which recovered from the disease; and this circumstance also obtains among females of the human race, as pregnant women attacked by influenza are apt to miscarry, and the flooding is in some cases fatal.

In many of the sheep that recover from this disease the general debility induced on the system remains for a long time; and in all the animals recovering from the disease, the high state of fever which accompanies the attack occasions them to lose all their wool, which very soon falls off, leaving the poor animals perfectly naked.

This epidemic catarrh differs from the common catarrh in the abruptness of its incursion, severity of its symptoms, and the rapidity of its transition; but varies in the severity of its symptoms according to the constitution of the animal, and is liable to occur at every season of the year when atmospheric changes are prevalent, which variability, I had frequently opportunities of observing, is very commonly the case in this colony.

**DISSECTIONS.**—On the examination of the bodies of the sheep which died from this epidemic, the cause of death was found to proceed either from inflammation of the immediate membranes of the brain, or from pulmonary disease. On examining the brain, the dura-mater was healthy; but on laying it back, the arachnoid membrane was found with its bloodvessels highly injected, both on the convexity of the hemispheres at the decussation of the optic nerves, and sometimes even in the interior of the ventricles. In some cases I observed a quantity of serous fluid secreted under the membrane, and a small quantity of similar fluid was found effused in the lateral ventricles. Occasionally the vessels of the pia-mater were found injected. The tunics of the cerebral nerves—especially the olfactory—displayed a beautiful ramification of injected bloodvessels encircling them. The sinuses of the brain were filled with clotted blood. The substance of the brain exhibited no trace of diseased structure. The frontal sinuses displayed indications of intense inflammation having existed, a sero-purulent matter being secreted, or the cavity was found filled with black coagulated blood. The whole of the nasal cavity presented, in every case, the most intense redness, from a florid to a dark red, mingled with patches of a leaden hue; the turbinated bones were unusually florid throughout the whole of their structure, as if they had been filled with an exceedingly minute injection: this was not confined to the membrane covering their surface, but extended throughout the whole of their substance; and, indeed, the enlarged injected bloodvessels reached through every part of the interior of the nasal cavity, and a very thick viscid matter was effused in the turbinated bones, as well as on the septum-narium, which could be scraped off with the knife. On cutting the substance of the nostrils, a

quantity of serous fluid or florid blood was discharged.

These were the appearances on the dissection of the brain when the cerebral organs were the seat of disease; but in many cases, although the same inflammation of the nasal cavity was found to exist in all that died from the present epidemic, yet no cerebral disease was found, the membranes being healthy; but the immediate cause of death existed in the larynx, trachea, and bronchiæ, or the substance of the lungs. In one case I found both extensive pulmonary disease, as well as cerebral; and from that circumstance we may infer, that disease might occur in both organs at the same time, although such has been of rare occurrence. Indeed, I should be inclined to adopt the opinion, that influenza centres (in the majority of instances) in the chest, although the whole body is affected by it—the head particularly—and in most cases the whole mucous lining of the throat, nares, and eyes, participates in the affection; the eyes becoming vascular, and the nose filled with a thick secretion. We also find in these animals, as in human subjects, an unusual languor and debility, disproportionate to the local affection. The heat of the animal is increased, the breath is hot, and a chillness is immediately felt on exposure to a current of air: the urine is scanty.

In some cases the pneumonic symptoms are severe, and in other cases they are less urgent, whilst the pain and heaviness of the head, and the dulness of the sensorial powers, is much increased. In the first, we may expect the lungs on dissection to be found the seat of the disease, and, in the latter, the cerebral organs.

The heart, when cerebral disease was found, was gorged with black blood, as well as the large veins; but when pulmonary disease existed, although all the large veins were equally gorged, yet I invariably found only the right auricle of the heart gorged, the left auricle and right and left ventricles being empty.

When the lungs were found to be the seat of disease, it evidently had assumed the features of acute pulmonary catarrh, or inflammation of the pulmonary mucous membrane, varying in its degree of intensity, and attended with great bronchial irritation. On dissection it appears that the right or left lobes of the lungs—I have observed the right to be more especially the seat of disease than the left—have the mucous membrane red to a greater or less extent, and with the appearance of a number of small red points, aggregated closely together. In other cases the lungs present an increase of weight and density; they are infiltrated with a frothy serosity in some quantity; the external surface is of a grey or violet colour; and these appearances indicate the disease to have been pneumonia. And again, we observe all the anatomical characters of pulmonary apoplexy in others, the lungs being of the degree of density of a hepatized lung, and the vessels filled with clotted blood. In many of the dissections a viscid mucus obstructed the bronchiæ; and the mucous membrane lining the bronchiæ, trachea, larynx, and extending even to the pharynx, was found inflamed, and a frothy mucus was effused in these passages. The stomach was found healthy, and in the majority of cases filled with well-digested food: the whole of the alimentary canal was perfectly healthy, and in very few was there any constipation observed: but where it did exist, the feces had accumulated in both the large and small intestines in large hard lumps, and evidently ap-

peared, both before or after death, to have produced abrasion of the mucous membrane of the intestines.

The liver was perfectly free from disease, and the gall-bladder filled with healthy bile; in some dissections I observed the gall-bladder verid much distended with bile. The remainder of the abdominal viscera were healthy. The pelvic viscera also were healthy, and the bladder unusually distended with urine.

**TREATMENT.**—It is only in the first stage of the disease that remedies can be applied with almost any probability of success; and as the first appearance of the disease is indicated by frequent sneezing—more particularly at night, and some time before any other of the more violent symptoms mark the invasion of the disease—it is at this period that I should recommend more particularly the treatment of the affected animals to commence; and no doubt at that time milder remedies will be more successful, before the inflammatory attack has advanced so far as to require severe treatment.

In the first symptoms of the disease blood may be abstracted, according to the age and constitution of the animal, and repeated, should the increase of the inflammatory symptoms seem to require it. After the venesection, a pint of lukewarm gruel, in which an ounce of Epsom salts has been dissolved, may be administered, and the lukewarm gruel repeated occasionally.

The bleeding may be either topical or general; the latter would probably be the most advisable, as the quantity abstracted can be regulated when taken from the jugular vein, whereas by topical bleeding a sufficient quantity cannot always be abstracted in a sufficiently short space of time. The extent of bleeding must in all cases be regulated by the severity of the disease, or the capabilities of the animal to suffer depletion. The abstraction of a small quantity of blood in an early stage of the disease, will probably mitigate the severe symptoms immediately; for on account of the great depression of strength, and dulness of the sensorial powers, it would be advisable, if possible, not to bleed largely, and perhaps occasion might not be required to draw blood a second time. Warm gruel should be repeated occasionally; and gentle exercise for the hospital flock will also be productive of benefit to them.

In preference, however, to the administration of any saline purgatives, turning the sick flock into a wheat paddock will be productive of the same aperient effect, and prove of more benefit to the sheep. I attribute the comparatively trifling loss among the sheep attacked by this epidemic at the station at Benbengaloo, to the sheep being taken and treated, in the first stage of the disease, in the manner I have just recommended: the deaths which did occur were principally among those that were not seen until the disease had advanced beyond the second stage.

The water gruel may be composed of one pound and a half of flour, half a pound of sugar, and thirty pints of water boiled, and given lukewarm. As a purgative, in the absence of green food, as before recommended, one ounce of Epsom salts may be administered internally, combined with a drachm of nitre in a pint of water gruel, given lukewarm; and the water gruel may be repeated three times daily afterwards.

I should recommend the overseers, on the appearance of this epidemic among their flocks, to frequently inspect all their sheep, and, noting the

first symptoms which appear in this epidemic, immediately separate the diseased from the healthy sheep. This ought to be done at least three or four times daily, and it would enable remedies to be employed in time, that would materially diminish the mortality in the flocks, and would be attended with less trouble if there should be a want of men. The treatment of the disease will be much aided by the sick sheep being folded in warm, dry, and sheltered situations, and having young green food, which is not only a valuable remedy when aperients are required, as in this malady; but the invalid sheep require a better and more nourishing diet, when in a weak and languid state, than when in the enjoyment of perfect health.

When the inflammatory symptoms are not very severe, topical bleeding, by opening a vein as near the seat of inflammation as possible, or by counter-irritants, may be recommended to subdue the inflammatory action; but as in this epidemic catarrh the lungs and bronchiæ are very liable to be affected sooner or later, according to the idiosyncrasy of the animals, it would be advisable, by all means, closely to watch the progress of the disease, and either resort to active treatment by the general abstraction of blood from the jugular vein, when the inflammatory symptoms run high, or to adopt milder measures in order to subdue the disease when it assumes a more gentle form.

It has happened, that many sheep have been treated by bleeding, &c., and yet the mortality was very great; but on careful inquiry it appeared that the animals were not treated until they reached the advanced or third stage, when all remedies were useless. As I have before observed, many localities, although good for healthy sheep, are yet too chilly for animals suffering from an epidemic attended with such languor, debility, fever, and depression of the vital powers, as this; consequently organic disease rapidly takes place, and speedily terminates in death. The sick sheep ought to be prevented from drinking cold water: with green food they would not require so much water as when feeding upon drier herbage. When water is given to the sick or diseased sheep, it should be tepid.

At Bureong, in the Lachlan, when the sheep were attacked by this epidemic, they were bled from the vein under the eye, in the ears, &c., and had lukewarm salt and water administered internally; but the whole treated in this manner died. Bleeding from the jugular vein was next resorted to, and Glauber's and Epsom salts, with warm gruel, were administered internally. Many of the affected sheep then recovered; but I could not ascertain whether they had been treated in the first stage of the disease. Tobacco water was also tried as an internal remedy; but the whole of the sheep died to whom it was administered.

In a few instances, some sheep proprietors injected spirits of turpentine up the nostrils of sheep affected by this disease; the result of which was, as might have been expected, immediate death. Blisters applied over the nostrils proved equally useless, because a local remedy was of little avail when the disease affected the whole constitution.

Lambs of a few days or a fortnight old were also attacked by the epidemic, and, on dissection, the same appearances presented themselves as in the old sheep. To most of the lambs attacked the disease proved speedily fatal, as the same remedies could not be so readily administered to them as to the older sheep.

It may be mentioned that Epsom salts, when



administered in cold water to the sheep, proved injurious, but were beneficial when given in warm gruel. Several of Captain Rossi's flock were bled, and Epsom salts, combined with a little nitre, given cold; but that mode of treatment was found to be injurious, the sheep dying two or three hours after it had been administered. The others were then treated with warm gruel and sugar, with a little common salt, after venesection, and this repeated for two or three days; this plan of treatment was found to be beneficial. Some sheep that had been bled were afterwards turned into a field of green barley; the whole were purged, and, out of a hundred, seventy recovered from the disease. It ought to be mentioned, that this sick flock was taken from the paddock, and placed during the night in the shearing shed, with clean straw.

Another flock was effectively treated by bleeding in the jugular vein; washing the nostrils clean from the discharge, and administering warm gruel with common salt, sugar, and a little nitre internally; the number of sheep treated in this manner was 360, out of which 342 recovered. The flocks were at the same time overlooked twice daily, and any that exhibited symptoms of the disease were immediately removed, bled according to the strength of the sheep, and the internal remedy administered, as I have just mentioned.

**THE CAUSES, CONTAGIOUS NATURE, &c. OF THE DISEASE.**—The causes of the present epidemic may be referred to two sources, an immediate or exciting, and a predisposing cause; and in the epidemic, the subject of our present inquiry, as it appeared among the sheep, a strict analogy in every symptom, and in all its modifications, will be found as when the same disease was prevalent among the human race.

The first or immediate cause is to be attributed to the state of the atmosphere; and all causes which operate to the injury of the animal frame may be correctly divided into external and internal; although sometimes a combination of both may give rise to many maladies. The principal external agencies are the atmosphere, with all its varieties of temperature, moisture, and dryness, specific contagious, noxious exhalations, &c. The internal causes are peculiarity of constitution, hereditary predisposition, all circumstances which produce debility, or superabundance or deficiency of the various secretions, &c.; and these latter may be classed among the predisposing causes. But some diseases are capable of being propagated, and the external cause can be demonstrated in a specific virus, capable of producing that distinct and peculiar affection. Thus smallpox, syphilis, &c., may be kept up and disseminated by their own original principle.

If the state and variability of the atmosphere was more studied during the visit and previous to the appearance of epidemical diseases, there would be much light thrown upon that cause, which is at the present day so readily assigned to contagion; indeed, we find the idiosyncrasy of different individuals such, that during the time the wind blows from a certain quarter, they feel indisposed, without any other assignable reason; and if wounded, the wound will not heal from the same cause: that others, again, suffer violent headaches when the atmosphere is charged with abundance of electric fluid, and which subside when that peculiar state of weather has passed.

Although I look upon a peculiar state of atmosphere as the immediate cause of this epidemical disease, yet the predisposing cause among sheep

may have originated in—first, breeding ewes twice in a season; second, the injurious effects which result from breeding in the same flocks, or what is technically termed, "breeding in-and-in," by which, although the quality of the wool may be improved, the constitution of the sheep is so weakened as to render them liable to disease, and susceptible of the atmospherical changes; and, third, the constitution of the sheep having been injured by mercurial remedies used in scab, as well as from the effects of that eruptive disease itself.

When engaged in the present investigation, a query arose, whether fine woolled sheep were more apt to suffer from the present epidemic than coarse woolled sheep; and I found that the finer woolled sheep had suffered severely, while the coarser woolled sheep had escaped entirely, or very slightly, except Mr. H. Hume's flock, which consisted of second class sheep; but then they were nearly all aged ewes.

The vicissitudes of the climate in this colony are found to be very great. I have often remarked that the mornings during the summer season are intensely hot, followed frequently during the afternoons and evenings by cold chilly winds, the temperature varying from 10° to 20°: it is therefore not uncommon for men working in the fields during harvest, nearly stripped of their clothing, when the sudden change of temperature takes place, to be attacked by head-achs, pains in the limbs, and general debility, frequently followed by catarrh. In Captain Rossi's flock, I am inclined to attribute one of the causes of the epidemic to change of locality, from a mild to a severe climate, exposed to a cold, chilly, variable atmosphere, with rain or snow; the animals being more predisposed to the disease by dry food, and being bred "in-and-in."

**CONCLUDING OBSERVATIONS.**—Catarrh among sheep, that is, in the form of what is called common catarrh, is not uncommon either in this colony or in Europe. But the appearance of this severer form of catarrh, the epidemic catarrh or influenza, in which the inflammatory symptoms are more increased than in the common form of the disease, I regard as novel, and am not aware that it has ever before appeared as an epidemic among sheep.

Before concluding this report I may be allowed to recommend to the sheep proprietor, that salt may be given to the sheep regularly, and in small quantities; it tends to strengthen the digestive organs, promotes secretion of bile, and is favourable to their general health. I recollect reading from some work, and making an extract in my note book at the time, that a gentleman resident in the county of Cumberland, in England, employed salt among his live stock daily for many years.

For Horses he gave.....	6 oz. per day
Milch Cows.....	4 ditto
Feeding Oxen.....	6 ditto
Yearlings.....	3 ditto
Calves.....	1 ditto
Sheep.....	2 to 4 per week,

if on dry pastures; but if they are feeding on turnips, &c., then they should have it more freely. Some give it to live stock on a slate or stone, and others lay lumps of it in the cribs or mangers. Many consider that if sheep are allowed free access to salt they will never be subject to a variety of diseases; and others, again, believe that it may even prove a cure for that formidable disease, which is considered to proceed from a worm of

the class *Entozoa*; the *Fasciola hepatica* of Linnæus—*Distoma hepaticum* of Abildgaard, and which has received the common appellation of the Liver Fluke.

In concluding this Report, I may observe, that, in giving directions for the treatment of any disease, whether found existing among human beings or the brute creation, the judgment of the practitioner must be always called into action; the habits and constitution of the patient under treatment ought to be minutely studied, and the practice should be modified according to these observations, whether the symptoms of the disease assume a severe or mild character. By such means alone can a successful termination of the disease be expected.

In sheep of very delicate constitutions, or high-bred sheep, a very moderate venesection—if even abstraction of blood can be resorted to at all with safety—must be adopted, and the animals carefully housed; but the coarse-woolled or stronger constitutioned sheep may receive, of course, according to the severity of the symptoms, the treatment before recommended: but at the same time the sheep proprietor must observe the necessity of treating the sick sheep according to their strength, classing them in small flocks agreeably to the nature of the disease. Housing them at night during the prevalence of the epidemic may also be advised. I am, however, fully aware that all directions will be useless unless the shepherds will pay minute attention to their flocks, which in too many instances has not been done. I attribute much of the mortality to this neglect of the men in charge of the sheep. Care being taken to treat the animals in the first stage of the disease, I have no doubt, will reduce the rate of mortality from this epidemic—should it re-occur, which is not at all improbable—to a very low amount.

*Sydney, Oct. 3, 1835.*

### LIVERPOOL AGRICULTURAL SOCIETY.

The annual meeting of this society, for the general show of live stock, implements of husbandry, seeds, &c. took place on the 6th of October. The yard was opened to members gratis, and to the public generally on payment of 2s. 6d. each, and at two o'clock the charge for admission was reduced to 1s. The show of live stock of all kinds was much superior to that of the last, or any preceding year, both with respect to the number and quality of the animals exhibited; and this marked improvement affords an additional proof, if any were wanted, of the great utility of the society, and the beneficial effects of that spirit of emulation which it has been the means of exciting amongst the agricultural classes of this and the surrounding districts. The show of horses was both numerous and good. About thirty stallions, principally of the heavy draught or cart kind, were exhibited, and many of them were splendid animals. Amongst them, the "Farmers' Glory," belonging to Mr. James Rimmer, of Scarisbrick, to whom the society's first prize of 10 sovereigns was awarded, is worthy of particular notice. A finer creature of the kind, both for bone, muscle, and symmetry, or one more deserving of the name bestowed upon him, has seldom, if ever, been seen. He stood 17 hands 3 inches high; and the manner in which he held his small and finely-formed head,—the arch of his

beautiful and massive neck, which measured seven feet in girth,—his neigh of triumph, and graceful caracoles, seemed to bespeak a consciousness of beauty and power, and of the general admiration which he excited. He is perfectly quiet and docile under ordinary circumstances,—but the congregation of so many animals of his own species in his immediate vicinity rendered him restless, and apparently anxious for a trial of strength with one or all of his neighbours, whose boundings and curvettings rendered a passage through this part of the yard a matter of some little difficulty, if not danger. The show of brood mares was good, though not numerous. There were also exhibited five pair of cart-horses, and about twenty three-year-olds, two-year-olds, and yearlings,—many of them very fine animals. There were fifteen fine, full-grown bulls, and about twenty yearling bulls and calves. The show of cows, heifers, and calves was both good and numerous; but some of the animals, having been driven a considerable distance to the place of exhibition, seemed rather out of condition. It is rather a singular circumstance that all the bulls, and we believe, the cows, were of the short-horned kind. Amongst the extra stock was a fat cow, the property of Captain Hampton, of Hannlys, Anglesea, which measured upwards of a yard across the loins, and weighed upwards of 1 ton 4 cwt. She is eight years old, and one of the first prizes for extra stock was awarded to the owner. She is descended from the celebrated Conct, which was sold by the owner for 1,000 guineas. The great improvement exhibited in the show of cattle, compared with that of last year, was subject of general remark amongst the best judges; and to no part of it does this observation apply more strongly than to the show of sheep, of which a great number of the Southdown and Leicester breeds, of all ages, were on the ground. The show of last year bore no comparison with the present, either with regard to number or quality. Some of the unshorn bore splendid fleeces, resembling silk in texture. The show of pigs, especially breeding sows, many of which had numerous progenies around them, was also much better than that of last year. One of them, a fat sow, belonging to Mr. James Hall, butcher, of this town, attracted general notice. Its weight was about thirty-five score. We must say, however, that to an uninitiated eye many of the poor porkers were objects rather of pity rather than admiration, inasmuch as they were so much overloaded with their own obesity as to be incapable either of standing or moving with any thing like comfort to themselves. In the shed for the exhibition of roots, plants, &c., several fine specimens were exhibited. There was a very fine collection of all sorts of grain,—both in the stalk and in seed, and of all the best sorts of grasses. Amongst the roots was a Swedish turnip, measuring a yard round, and weighing 26 lbs. with several of smaller dimensions, grown by Mr. Skirving, who deserves the utmost credit for the care and attention which he has bestowed, for several years past, on the cultivation and improvement of this most valuable root. They were remarkably sound, and clear from fangs, and presented a fine contrast with some plants of the same kind grown upon Chat Moss. There were also several fine specimens of mangel wurzel, both yellow, white, (the kind from which sugar is extracted,) and red. Four roots of the latter, grown at Halsall, weighed 20 lbs. There were two or three specimens of the Cæsarian cow cabbage, of which so much has re-

cently been said, and a very abundant supply of seeds intended for sale. There was not much demand for them, though we believe that they were so much the rage in London, a short time ago as to bring so much as a shilling for a single seed. They were now somewhat reduced in price, being offered at a shilling the package. One of the specimens exhibited consisted of a stalk about seven feet in length, with a straggling top, somewhat resembling the palm tree in shape. In the opinion of a competent judge, the Casarian cow cabbage cannot be recommended as a profitable plant for agricultural purposes, is not equal in value to the common cattle cabbage of this country, and is certainly more curious than useful. Several machines for cutting hay, turnips, &c., were exhibited; but there was not much novelty in either the principle or application of any of them.

## REPORT.

On the seventh anniversary it has become the pleasing duty of the Committee to inform the subscribers and the public that their efforts to improve the general agriculture of this district, have created such emulation that it is to be hoped the time is not far distant when the advantages of rewards will give such encouragement as to place it second to very few in the kingdom.

The show of live stock this day surpasses that of any preceding exhibition, not only in number, but also in the excellence of the animals, with, of course, a few exceptions; but very few amongst the horned cattle, pigs, and sheep, fully showing the advantages derived from seven years' competition.

The Committee again draw the attention of the agriculturists, and of landowners in particular, to the number of premiums which have been given for draining, an improvement which in the greater part of this district, is the most essential in our agriculture, and without which (in situations requiring it) all the efforts of the farmer are of little avail.

The Committee have great pleasure in stating that the second annual ploughing match took place last Spring at Newton, and satisfied the expectations they had when they came to a conclusion to form this branch of agricultural competition in this neighbourhood; as the second exhibition very greatly surpassed the first, both in number of competitors, and in the superiority of the ploughing.

The Committee cannot close their report without thanking the subscribers and the public for the very liberal support they have met with, and they trust there will be an increase to that support, to enable them to give such rewards as may induce more individuals to become candidates for the premiums.

This argument is respectfully urged upon the consideration of all non-subscribers who are interested in land, and they may be told that their support is absolutely necessary if the ploughing matches are to be continued, as they have entailed considerable additional expense upon this society.

For the gratuitous use of the yard for the exhibition of live stock, the thanks of the Committee are respectfully returned to the Mayor and Corporation of this great place; and to Mr. Lucas, the very liberal gentleman who affords the accommodation of the best room in the town for the dinner party to enjoy themselves in.

## PREMIUMS.

## CLASS I.—BEST CULTIVATED FARMS, &amp;c.

Premium 6. To Mr. John Burgess of Utlington, near Delamere Forest, (not solely dependant upon

farming,) for the best cultivated farm of 400 acres, a piece of plate, value seven sovereigns.

11. To R. W. Barton, Esq., of Derby House, Lower Bebbington, as owner and occupier of a farm of 200 acres, for laying 63,608 yards of drains for most effectually draining acres thereof, the Society's silver medal.

12. To Dr. Sillar, of Rainford, as owner and occupier of a farm of 80 acres, for laying 9,190 yards of drains for most effectually draining 19 acres thereof, the Society's silver medal.

13. To Mr. Wm. Backhouse, of Lathom, as tenant and occupier of a farm of 272 acres, for laying 6,464 yards of drains for most effectually draining 23 acres thereof, a piece of plate, value ten sovereigns.

14. To Mr. Nathan Loulady, of Huyton, as tenant and occupier of a farm of 140 acres, for laying 10,380 yards of drains for most effectually draining 21 acres thereof, a piece of plate, value seven sovereigns.

15. To Mr. Edward Ambrose, of Tarbuck, as tenant and occupier of a farm of 95 acres, for laying 5,637 yards of drains for most effectually draining 12½ acres thereof, a piece of plate, value 5 sovereigns.

15. To Mr. John Shuttleworth, of Tarbuck, as tenant and occupier of a farm of 74 acres, for laying 4,240 yards of drains, for most effectually draining 10 acres thereof, the Society's silver medal.

17. To Mr. William Burgess, of Delamere Park, Cheshire, as owner and occupier of a farm, for laying down 21 acres of permanent meadow, the Society's silver medal.

18. To Mr. John Dawson, of Gronant, near Holywell, as tenant and occupier of a farm, for laying down 21 acres for permanent meadow, a piece of plate value four sovereigns.

20. To Mr. John Warburton, of Sandiway, Cheshire, as tenant and occupier of a farm of 152 acres, for having judiciously covered with marl 17 acres, a piece of plate value five sovereigns.

21. To Daniel Magrath, Esq., of Chat Moss, as owner and occupier of a farm of 50 acres, for having judiciously covered with marl 14 acres, a piece of plate value three sovereigns.

26. To Mr. William Winstanley, of Speke, as tenant and occupier of a farm of 116 acres, for cutting, laying, and plashing, 349 perches of fence, a piece of plate, value five sovereigns.

12. To Richard Southern, labourer, of Speke, for cutting the hedges for the successful candidate, the sum of one pound.

## CLASS II.—CROPS AND PRODUCTIONS OF THE DAIRY.

Premium 1. To Sir Edward Mostyn, Bart, of Talacre, as owner and occupier, for the best crop of mangel wurzel of 3 acres, the Society's silver medal.

2. To Mr. John Dawson, of Gronant, near Holywell, as tenant and occupier, for the best crop of mangel wurzel of 7 acres, a piece of plate, value five sovereigns.

5. To Mr. William Boys, of Speke, as tenant and occupier, for the best crop of Swedish turnips of 6½ acres, a piece of plate value six sovereigns.

6. To Mr. Richard Almond, of Standish, as tenant and occupier, for the best crop of Swedish turnips of five acres, a piece of plate, value four sovereigns.

7. To Mr. George Wright, of Walton, as tenant and occupier, for the best crop of Swedish turnips of 2½ acres, a piece of plate, value three sovereigns.

## CHEESE.

9. To Mr. Robert Bennett, of Aston, as tenant for making 10 tons 16½ cwt of cheese, from 65 cows, a piece of plate, value eight sovereigns.

## CLASS III.—REWARDS.

6. To Thomas Griffiths, farmer's man servant to Mr. Thomas Whitley, of Brencoced, for 18 years servitude, four sovereigns.

7. To Robert Griffiths, farmer's man servant to Mr. Thomas Whitley, of Brencoced, for 16 years' servitude, two sovereigns.

8. To James Johnson, farming labourer to Peter Balmer, of Acton Grange, for 46 years' servitude, and for having conducted himself to the satisfaction of his employers during that period, four sovereigns.

9. To Samuel Griffiths, farming labourer to Mr. Thomas Whitley, of Brencoced, for 40 years' servitude, and for having conducted himself to the satisfaction of his employers during that period, two sovereigns.

To John Prow, farming labourer to Mr. Ralph Bolton, of Wigan, for 40 years' servitude, and for having conducted himself to the satisfaction of his employer, two sovereigns.

10. To Ann Aspinall, of Halsall, farmers' woman servant to Mr. Richard Coxhead, for 26 years' servitude, and for having conducted herself to the satisfaction of her employer during that period, three sovereigns.

11. To Ellen Gower, of Sephton, farmers' woman servant to Mrs. Gilbertson, for 25 years' servitude, and for having conducted herself to the satisfaction of her employer during that period, two sovereigns.

15. To Thomas Johnson, of Acton Grange, labourer in husbandry, for bringing up 12 legitimate children without parish relief, sovereigns.

15. To John Smith, of Sephton, labourer in husbandry, for bringing up 12 legitimate children without parish relief, sovereigns.

16. To William Hesketh, of Halsall, labourer in husbandry, for bringing up 10 legitimate children, without parish relief, sovereigns.

## CLASS IV.—LIVE STOCK.—HORNED CATTLE.

Premium 1. To Mr. Richard Almond, of Standish, for the best short-horned bull, 3 years old, fifteen sovereigns.

2. To R. B. Hollinshead, Esq., of West Derby, for the best short-horned bull,  $2\frac{1}{4}$  years old, the society's silver medal.

3. To Peter Greenall, Esq., of St. Helen's, for the best short-horned bull, 1 year old, a piece of plate value 5 sovereigns.

4. To Mr. William Howard, of Knowsley, (being solely dependant upon farming), for the best short-horned bull, 2 years and 3 months old, bred within the limits of the society, a piece of plate value eight sovereigns.

This bull was not considered worthy of so large a premium, but awarded being the property of the farmer, for the sake of encouragement.

7. To Mr. William Bloor, of Point of Ayr, (being solely dependant upon farming), for the best short-horned bull, 1 year 3 months old, bred within the limits of the society, a piece of plate value five sovereigns.

8. To Mr. Edward Webster, of Bold, (being solely dependant upon farming), for the second-best short horned bull, 1 year 6 months old, bred within the limits of the society, a piece of plate value three sovereigns.

9. To Sir Edward Mostyn, Bart., of Talacre, for the best dairy cow, the society's silver medal.

10. To Robert Statter, Esq., of Knowsley, for the second-best ditto, a piece of plate value four sovereigns.

11. To Richard Pilkington, Esq., of Windle, for

the best two-year-old heifer, a piece of plate value five sovereigns.

12. To ditto, for the best yearling heifer, a piece of plate value three sovereigns.

13. To Mrs. Margaret Palding, of Croxteth, (being solely dependant upon farming,) for the best two-year-old heifer, bred within the limits of the society, a piece of plate value five sovereigns.

15. To Mr. William Bloor, of Point of Ayr, (being solely dependant upon farming,) for the best one-year-old heifer, bred within the limits of the society, a piece of plate value three sovereigns.

16. To Mrs. Scotson, of Garston, (being solely dependant upon farming,) for the second-best one-year-old heifer, bred within the limits of the society, a piece of plate value one pound ten shillings.

18. To Peter Greenall, Esq., of St. Helen's, for the cow or heifer showing the most symmetry, fat, and weight, a piece of plate value five sovereigns.

20. To John Dawson, Esq., of Gronant, for the best cow for feeding after milking, a piece of plate value three sovereigns.

21. To Robert Statter, Esq., of Knowsley, for the second-best ditto, a piece of plate value two sovereigns.

## HORSES.

Premium 22. To Messrs. J. and J. Rimmer, of Scarisbrick, for the best stallion for the general purposes of agriculture, a piece of plate value ten sovereigns.

23. To Mr. Jas. Heaps, of Little Hulton, for the second best stallion for ditto ditto, a piece of plate value seven sovereigns.

24. To Mr. Peter Harrocks, of Aughton, for the best brood mare, for the general purposes of agriculture, a piece of plate value five sovereigns.

25. To Bennet Smith, Esq., of Ashton, for the second-best brood mare, for ditto ditto, a piece of plate value three sovereigns.

27. To Mr. Henry Swift, of Lathom, for the best yearling colt, gelding, or filly, for the general purposes of agriculture, a piece of plate value three sovereigns.

28. To Mr. R. Charnock, of Eccleston, for the best two-year-old colt, for the general purposes of agriculture, a piece of plate, value four sovereigns.

29. To Mr. Edward Webster, of Bold, for the best two-year-old gelding, or filly, for the general purposes of agriculture, a piece of plate value four sovereigns.

30. To Mr. James Cook, of Eccleston, for the best three-year-old gelding or filly, for the general purposes of agriculture, a piece of plate value five sovereigns.

51. To Joseph Swift, of Eccleston, (being solely dependant upon farming), for the best pair of horses for the general purposes of agriculture, a piece of plate, value five sovereigns.

32. To Mr. Thomas Harrison, of Orrell, (being solely dependant upon farming,) for the second best pair of horses for ditto ditto, a piece of plate, value three sovereigns.

## SHEEP.

33. To John Dawson, Esq., of Gronant, for the best pen of three yearling Leicester ewes, a piece of plate, value three sovereigns.

34. To Mr. Samuel Scotson, of Toxteth-park, for the second-best pen of three yearling Leicester ewes, a piece of plate value one sovereign.

35. To Mr. Robert Jenkins, of Mold, for the best pen of three yearling Southdown ewes, a piece of plate, value three sovereigns.

36. To Mr. Robert Lucas, of Allerton, for the

second best pen of three yearling Southdown ewes, a piece of plate, value one sovereign.

37. To Mr. J. C. Etches, West Derby, for the best Leicester ram, under three years old, a piece of plate, value two sovereigns.

38. To Mr. Samuel Scotson, of Toxteth-park, for the second-best Leicester ram, under three years old, a piece of plate, value one sovereign.

39. To Mr. Robert Lucas, of Allerton, for the best Southdown ram, a piece of plate value two sovereigns.

40. To Mr. Robert Johnson, of West Derby, for the second-best Southdown ram, a piece of plate value one sovereign.

43. To Sir Edward Mostyn, of Talacre, for the best pen of five fat ewes, a piece of plate value two sovereigns.

44. To John Dawson, Esq., of Gronant, for the second-best pen of five fat ewes, the society's silver medal.

45. To John Dawson, Esq., of Gronant, for the best pen of five Leicester lambs, a piece of plate value 2*l* 10*s*.

46. To Sir Edward Mostyn, of Talacre, for the second-best pen of five Leicester lambs, the society's silver medal.

47. To Mr. Robert Jenkins, of Mold, for the best pen of five Southdown lambs, a piece of plate value 2*l* 10*s*.

## PIGS.

49. To Mr. William Pickup, of Liverpool, for the best boar, two years old, a piece of plate value four sovereigns.

50. To Mr. John Dawson, of Gronant, for the second-best boar, 11 months old, a piece of plate value three sovereigns.

51. To Mr. Samuel Scotson, of Liverpool, for the best breeding sow, 2 years old, a piece of plate value three sovereigns.

52. To Mr. John Dawson, of Gronant, for the second-best sow, 1 year and 3 months old, a piece of plate, value two sovereigns.

53. To Mr. J. C. Etches, of Liverpool, for the best fat pig, 13 months old, a piece of plate, value two sovereigns.

54. To Mr. John Dawson, of Gronant, for the second-best fat pig, 11 months old, a piece of plate value 1*l* 10*s*.

## EXTRA STOCK.

56. To Richard Pilkington, Esq., of Toxteth-park, for the best cow of any breed, five sovereigns.

57. To Richard Pilkington, Esq., of Windle, for the best two-year-old heifer of any breed, two sovereigns.

58. To Mr. John Dawson, of Gronant, for the best one-year-old heifer of any breed, two sovereigns.

60. To Sir H. B. Hoghton, Bart., of Bold, for keeping the best bull of any breed, to serve the cows of his tenantry gratis, the society's silver medal.

61. To Sir E. Mostyn, Bart., of Talacre, for keeping the best boar to serve the sows of his tenantry gratis, the society's silver medal.

To Mr. James Heaps, of Hulton, for a good stallion, the society's silver medal.

To Robert Statter, Esq., of Knowsley, for his short-horned bull, four years and a half old, the society's silver medal.

To Robert Statter, Esq., of Knowsley, for his two-year-old heifer, the society's silver medal.

To John Dawson, Esq., for his short-horned cow, the society's silver medal.

To Captain Hampton, of Henllys, Anglesea, for a superior fat cow, the society's silver medal.

To Mr. William Lynn, for exhibiting six Chinese and six Neapolitan pigs, of a superior quality, the society's silver medal.

## SWEEPSTAKES.

1. To Richard Pilkington, Esq., of Windle, for the best short-horned bull, 3*l* 3*s*.

2. To Mr. William Bloor, of Point of Ayr, for the best two-year-old short-horned bull, 1*l* 11*s* 6*d*.

3. To Peter Greenall, Esq., of St. Helen's, for the best one-year-old short-horned bull, 1*l* 1*s*.

5. To Sir E. Mostyn, Bart., of Talacre, for the best short-horned cow, in calf or milk, not fed for the butcher, 5*l*.

6. To Richard Pilkington, Esq., of Windle, for the best cow of any breed, not fed for the butcher, 1*l* 1*s*.

8. To Richard Pilkington, Esq., of Windle, for the best two-year-old short-horned cow, 3*l* 3*s*.

9. To Peter Greenall, Esq., of St. Helen's, for the best one-year-old short-horned heifer, 1*l* 11*s* 6*d*.

10. To Richard Pilkington, Esq., of Windle, for the best bull calf, under one year old, 2*l* 2*s*.

11. To Richard Pilkington, Esq., of Windle, for the best cow calf, under one year old, 1*l* 1*s*.

13. To Mr. Thomas Robinson, of Bold, for the best stallion, for agricultural purposes, 2*l*.

19. To Sir Edward Mostyn, of Talacre, for the best ram, 1*l*.

20. To John Dawson, Esq., of Gronant, for the best one shear ram, 1*s*.

20. To Mr. Samuel Scotson, of Toxteth-Park, for the best Leicester ewe, 1*l*.

21. To John Dawson, Esq., of Gronant, for the best boar, 1*l* 1*s*.

22. To John Dawson, Esq., of Gronant, for the best sow, 1*l* 1*s*.

23. To Mr. James Hall, of Liverpool, for the best fat pig, 1*l* 1*s*.

26. To Mr. William Ashcroft, of Halsall, for the best mangel wurtzel, 10*s*.

## IMPLEMENTS.

To Mr. Robert Jones, of Warrington, for a cheese press of a new construction, the society's silver medal.

## ROOTS, &amp;c.

To Messrs. Thomas Gibbs and Co., of London, for exhibiting a specimen of the Whittington new white wheat, the society's silver medal.

To Mr. Thomas Harrison, of West Derby, for exhibiting some superior specimens of Swedish turnip and mangel wurtzel, the society's silver medal.

To Daniel Magrath, Esq., Chat Moss, for a superior specimen of flax grown on Chat Moss, the society's silver medal.

## THE DINNER.

The annual dinner took place in the large room at Lucas's Repository, Great Charlotte-street. The chair was occupied by Lord Viscount Molyneux, supported on the right by R. B. Wilbraham, Esq., M.P., and on the left by William Blundell, Esq., of Crosby. Amongst the gentlemen in the immediate vicinity of the chair, we observed John Formby Esq., Peter Greenall, Esq., of St. Helen's, J. Worrall, Esq., of Knotty Ash, Robert Statter, Esq., W. E. Hall, Esq., Thomas White, Esq., and a considerable number of gentlemen from the Principality.

The cloth was drawn ten minutes before six o'clock. The following toasts were drunk:—

“The King,—the Duke of Lancaster.”

“The Queen.”

"The Princess Victoria, and the other branches of the Royal family."

"The Army and Navy."

"The Patron of this Society, Lord Derby."

"Prosperity to the Liverpool Agricultural Society." (*Three times three*).

The Hon. R. B. WILBRAHAM then rose and said it was his pleasing duty to give a toast, which he was sure, in that room would be received with the greatest approbation that could possibly be shown. He regretted that their noble President who usually occupied the chair was absent, but he was sure they would all agree with him, that it was at present as well filled as they could possibly wish it to be on such an occasion. (*Cheers*.) In giving the health of the noble Viscount who sat on his left hand, he felt it to be a most pleasing duty, for he felt the highest regard for that noble man, and he was sure he was addressing an assembly who fully appreciated his merits, which were more particularly shown in the light of a country gentleman residing upon his property, (*cheers*) encouraging by every means in his power, not only agricultural pursuits, and agricultural labour, but aiding and encouraging in every possible way that he could agricultural sports—himself a leader in those sports, and not to be surpassed by anyone. (*Cheers*.) The Hon. gentleman concluded by proposing the health of

"Lord Molyneux, the farmers' friend." (*Three times three*.)

His LORDSHIP returned thanks, and concluded by giving—

"Lord Stanley."—(*Drunk with three times three*.)

The CHAIRMAN then proposed the health of the Vice-Presidents, Sir Edward Mostyn, Bright Crosses, Esq., and James Aspinall, Esq.

The CHAIRMAN said that the success of this meeting was not a little owing to the excellent place in which they had an opportunity of seeing the cattle to be shown, and they were very much obliged to the Mayor and Corporation for the advantages which they derived from the use of the yard.

"The Mayor and Corporation of Liverpool."

The CHAIRMAN said they were much indebted to the gentlemen who had assisted in awarding the prizes, and proposed the healths of

"John Binns, Esq., of Lancaster; James Fawcett, Esq., of Carlisle; and F. Paley, Esq., of Leeds"—the Judges of the cattle. (*Great applause*.)

Mr. BINNS, in returning thanks for himself and his colleagues, begged leave to express the great satisfaction they had felt in seeing so many valuable cattle as had had been shown that day. They hoped that the cattle would be the parents of a valuable stock in this part of Lancashire at a future day. (*Applause*.) Although they thought it right to speak thus in favour of the generality of the stock exhibited, at the same time it was only candid to say that part of the stock shown was not so creditable as the judges could have wished, though there certainly was a great improvement. They had given a premium to a part of the stock belonging to a farmer, which, had it belonged to breeder or a gentleman amateur, they certainly would not have deemed worthy of a premium. (*Hear, hear*.) They had given a premium of 8l for an animal which they considered far from good, but they had done it with a view to encourage farmers to bring stock to the show, and breed better stock in future. (*Applause*.) Experience had shown that the best sort of stock

were not only the best to sell, but the cheapest to keep and bring to market. (*Applause*.) He therefore recommended the farmers to make use of the good animals exhibited in order to improve their stock, and he was sure that gentlemen would encourage them to do so. (*Applause*.) Societies of this kind were doing a great deal of good in the country, but they were still only beginning to learn agriculture. Such was his opinion, and that of many others. Every inch of this country ought to be like a garden. It was, however, in a very poor state of cultivation. By growing clover, turnips, and grass crops alternately,—by keeping cattle more economically, providing food for them in the house, and reserving the manure for the ground, the land would be enriched to five times its present extent; there would be an increase of corn, as well as of cattle; and the county would be much richer than it was. He had not the least hesitation in saying that England ought to be an exporting country, both for sheep, cattle, and corn. This might reduce the price of corn, but the reduction in price would be amply made up by the increased quantity produced. They ought to imitate the example of the manufacturers who exported a great quantity of the goods they produced. If the agriculturists exerted themselves in the same way, if they became exporters of all kinds of produce from the ground, the nation would be a much richer one than it was. (*Applause*.)

The CHAIRMAN said they had had an excellent speech from Mr. Binns, and he only regretted that that gentleman had not gone on much longer, for he was quite certain that the hints Mr. Binns had given to the agriculturalists of this county would be of the greatest possible use. It was, therefore, to be regretted that he had not been much more prolix than he had been. It now became their duty to drink the health of the gentlemen who had officiated as judges of the horses. His Lordship proposed the healths of

"Christopher Johnson, Esq., of Lancaster, and Peter Carter, Esq., the judges of horses."

Mr. JOHNSON returned thanks. He was extremely sorry that he and his colleague could not say quite so much in praise of the horses shown that day as his friend Mr. Binns had said with regard to the cattle. He hoped, however, to see as much improvement another year as would meet their most sanguine expectations.

"The members for the County." (*Great Applause*.)

Mr. WILBRAHAM in returning thanks on the part of his colleagues and himself, begged to say that so far as he was individually concerned, no one was more interested in the prosperity of agriculture, and of the varied interests of this county than himself; but he regretted to say that as a practical farmer he could claim no great merit, and, in fact, knew very little about it. The duties which they had imposed upon him amply filled his hands during those months which were to the farmer of the highest importance, he meant the earlier part of the year when Parliament was sitting. It gave him very great pleasure to hear one of the gentlemen who officiated as judges, give it as his opinion that the stock of cattle was improving; and he trusted that the remarks made by that gentleman would be beneficially received, and induce those who heard them to turn them to some very good account. The gentleman had stated that the judges had given one prize to a farmer, but that the stock produced was not that which they as judges considered of the first quality.

That they had given that prize was to him a subject of gratification, because he was quite sure that in doing that they had done more to forward the objects of the society than could have been done in any other mode. (*Applause.*) He knew that gentlemen who were first-rate breeders of cattle would, if applied to, be very glad to afford farmers the use of their prime stock; and he trusted that, in succeeding years, the farmers would bear away the prizes from the gentlemen. (*Applause.*) He thanked them for the very flattering manner in which they had drunk the toast, and begged leave to drink all their good healths in return. (*Cheers.*)

The CHAIRMAN was happy to inform them that the report had now arrived, and, if it were their pleasure, it should be read from beginning to end. As, however, it was a very long one, and as they would have an opportunity of reading it in all the newspapers of the town, he thought it would be much better if the prizes were distributed now, and the report were read at their leisure. (*Hear, hear.*) There was, however, one part of the report on which he felt called upon to make a few remarks. He alluded to the rewards given to those individuals of a humbler class of life for long and faithful service in the employment of one master. (*Hear, hear.*) Servants were induced by their own good feelings in the first instance, and by the hope of reward in the second, to serve their masters faithfully, and he could not help thinking that one of the best services rendered by the society to the community was the offering of premiums of this sort. (*Applause.*) There were eleven farm labourers who had served, one 46 years; one 44; one 40; one 39; two 33; two 30; and three 26 years in the employ of the same master; and perhaps there were eleven times eleven who had had the modesty not to claim the reward. (*Applause.*) There were six claims from female servants, one of whom had served 26½ years, another 25½ years,—the ladies seen to deal in halves,—(*laughter.*) one 23 years, another 18½ years, another 18 years, and another 16 years. There were six premiums for farm labourers bringing up large families without parish relief. (*Cheers.*) Two of them had brought up twelve children each, two eleven, one ten, and another nine. He thought it right to read this in order that they might know in what way the society was rewarding honesty, fidelity, and industry in the humbler classes. (*Cheers.*) He then observed that in order to economize time, he would give such individuals as had gained more prizes than one the whole at once, instead of calling them up to receive each of them separately. His Lordship then distributed the prizes to the successful candidates, addressing a few words of congratulation to each. The first was Mr. John Dawson, of Flintshire, who received a whole trayful of prizes, nine in number. The names of the other successful candidates, and the description of the prizes awarded to them, will be found in the list. After a considerable time had been occupied in the distribution of prizes,

Mr. WILBRAHAM rose and said, that as this was but dry work for all but the successful candidates, he had obtained permission from the Chairman to propose a toast. He gave—

“The Town and Trade of Liverpool, and the prosperity thereof.” (*Great applause.*)

The CHAIRMAN, in handing a prize to Mr. Webster, the inspector of crops, expressed his great regret that the society was about to lose the benefit of his valuable services. On giving a prize to Mr. Bloor, his Lordship said that there was none

to whom the society was more indebted than to that gentleman, and to his excellent landlord, Sir Edward Mostyn.

The CHAIRMAN, in proposing the next toast, begged leave to express the gratitude the society owed to the individual whose health he was about to propose, and who had done more towards the success of the meeting than any other—he alluded to Mr. Lucas. They were indebted to him for the use of that room, which he gave to them gratuitously. It was one of the most beautiful rooms, he (the chairman) had ever seen for a public dinner, and Mr. Lucas had given it to them gratuitously at very great inconvenience to himself. They therefore owed it to him to drink his health in the most cordial manner. Mr. Lucas had this year made his first appearance as a farmer, and a successful one. He had not only won prizes himself, but seemed determined to carry off those of others, for he had bought their best bull. He was sorry that Mr. Lucas was not present, in consequence of indisposition, but in his absence he begged leave to propose

“Mr. Lucas:—better health to him, and thanks for the use of his room.” (*Loud cheers.*)

Mr. LUCAS, JUN. returned thanks for his father. He was sure that no member had more at heart the prosperity and ultimate success of the society, or viewed with greater pleasure the advance which it had made towards prosperity.

The CHAIRMAN said he had now got through the pleasing task of handing the premiums to the successful candidates. There was also a long list of prizes in money and medals, which they would see printed in the public papers. He ought not, however, to omit mentioning one premium of an extraordinary nature which had been obtained. He alluded to that awarded to Mr. M'Grath, for a very superior specimen of flax, grown upon a part of Chat Moss, which had very lately been redeemed from the waste. (*Cheers.*) His Lordship then proposed the health of

“Mr. Dawson and the successful candidates.”

Mr. DAWSON returned thanks for the very flattering manner in which his health had been drunk as one of the successful candidates. He wanted words to express his feelings. He attributed the success of the Welshmen at the show to the spirited society in their small county, which had been encouraged very much by the landowners in every possible way; and he was happy to hear that the Lancashire noblemen and gentry were likewise the farmer's friends. (*Cheers.*) He was sure that, were it not for the encouragement held out by the society in the county of Flint, the Welshmen would not be able to send stock fit to compete with the stock shown in the great county of Lancaster. (*Applause.*)

The CHAIRMAN said that they would still be in error if they separated without paying a debt of gratitude to those who were always at work for them, and seldom at play. He begged leave to propose the health of the Committee,—and more particularly that of Mr. White, the Secretary. (*Cheers.*) He was sure that if Mr. White was as indefatigable in other things as he had been in his exertions to procure a president for them, he deserved well of the society. (*Loud cheers.*)

Mr. WHITE begged leave to thank them most cordially for the very kind manner in which they had drunk his health. It was highly gratifying to himself that their labours had been so well rewarded that day. It was now some years since the first meeting had taken place for the purpose of

establishing this society. At the first meeting, in November, 1829, there were only thirteen members present. It was not a little gratifying to see that the thirteen had now been multiplied into 500; it was not a little gratifying to see that year by year they had gone on, so far as he was able to judge, decidedly improving in the cultivation of the soil, and producing improved breeds of horned cattle, sheep, and horses. (*Applause.*) His labours that day had been rather heavy, and he was sure they would excuse him for cutting short his remarks. In his own behalf and that of the Committee, he thanked them for the very kind manner in which the toast had been received. (*Applause.*)

Mr. WILBRAHAM begged leave from the noble President to propose a toast, which, he was sure, would be received with great approbation:—

“The health of Lord Sefton, the sire of our noble President, and success and prosperity to the house of Croxteth.”—(*Loud cheers.*)

There were now in the world, besides the noble President, two very young members of that noble house, and he hoped they would walk in the steps of their father, and be as great favourites as he was with the county. The toast was drunk in the most enthusiastic manner.

The CHAIRMAN in returning thanks said,—“Unfortunately,—I may say unfortunately, you see very little of the nobleman whose health you have now drunk,—but there is not a better supporter of the agricultural interest than he is. (*Cheers.*) I will venture to challenge the whole field of landlords to produce a better. That is saying a great deal for one so nearly connected with him, and it may be deemed presumptuous in me to say so much; but I will appeal to his tenants to say whether I am not telling the simple truth of him. (*Cheers.*) Ever since he came into possession of the estate, he has done nothing but his best to improve the condition of his tenants, in improving their buildings, and setting those over them who would make them do their best. May God long avert that day in which I shall derive the benefit of what he has done for that estate! (*Cheers.*) But I am quite certain that when that day does arrive, the estate will be worth ten times as much as it was when he came to the possession of it,—and that not by drawing from the tenant more than the tenant can give, or less, but by making him give that rent which his industry would fairly enable to give. I believe that that is real liberality and real humanity towards the tenant; and I only hope that I may one day be found following just in my father's steps. I thank you most cordially in his name. There is no one in the world to whom he is dearer than to me. To manage the estate as he has done—to be respected by his tenantry—and loved by all who knew him—is the highest object of my ambition; and I hope that his health may be drunk in this room as often as we meet in it. (*Cheers.*)

His Lordship retired at twenty minutes after nine o'clock, and was followed by the principal part of the company. The rest remained under the superintendence of Mr. Formby, and the festivity of the evening was kept up for some time longer.

A FLOATING FARM YARD.—The following sketch of a family floating down the Ohio on a raft is at once highly graphic and characteristic of our inland emigration:—“To-day we have passed two large rafts, lashed together, by which simple conveyance several families from New England were transporting themselves and their property to the land of promise in the

western woods. Each raft was eighty or ninety feet long, with a small house erected on it, and on each was a stack of hay, round which several horses and cows were feeding, while the paraphernalia of a farm-yard, the ploughs, waggons, pigs, children, and poultry, carelessly distributed, gave to the whole more the appearance of a permanent residence than of a caravan of adventurers seeking a home. A respectable looking old lady, with spectacles on her nose, was seated on a chair at the door of one of the cabins, employed in knitting; another female was at the wash-tub; the men were chewing their tobacco with as much complacency as if they had been in the land of steady habits; and the various avocations seemed to go on with the steadiness of clockwork. In this manner our western emigrants travel at slight expense. They carry with them their own provisions; their raft floats with the current, and honest Jonathan, surrounded with his scolding, squalling, grunting, howling, and neighing dependents, floats to the point proposed, without leaving his own fireside; and on his arrival there, may go on shore with his household, and commence business, with as little ceremony as a grave personage, who, on his marriage with a rich widow, said he had “nothing to do but walk in and hang up his hat.”—*American paper.*

#### THE AGRICULTURAL WORLD CHALLENGED!—SPADE LABOUR AGAINST ALL PLOUGH LABOUR, PLOUGH MATCHES, &c., &c.

A poor man, named James Serbutt, with a broken leg, being an old pensioner with an industrious foreign wife and three children, hath produced from thirty lugs of land or the third part of a quarter of an acre, rented with upwards of five hundred tenants of the Lord Bishop of Bath and Wells, the amazing quantity of eighteen bushels of cleaned excellent wheat, or at the rate of eighty-six bushels per acre, besides what the birds stole, and what was wasted in gathering of the bearded or blue ball sort. From thirty to forty bushels per acre is a great crop for plough inventions to save manual labour. Let but the industrious poor have what the Maker of Man intended he should have, namely to till the land and dress it, and such a beneficial change will be effected for the better in twenty years in this country, as has never entered the mind of man to conceive. If any one doubt this state ment let him or her come and see the beautiful splendid sight now blooming of a kitchen garden full of the bounties of Providence, of one hundred acres subdivided, from four to five hundred industrious, I will not call them poor but happy allotment tenants, just now gathering in the profits of their own and children's labour. This statement is witnessed by me, Joseph Emery, druggist, High-street, Wells, Somerset, who let out and managed the allotments for the first ten years.

Joseph Emery, James Serbutt owner,  
Wm. John Loxton, John Fry, Wm.  
Creyghton, Henry Foster, Richard  
Joice.

Dated this 19th day of September, 1836.

At Mr. Emery's cottage in the middle of the hundred acre garden.

N. B. We humbly call upon all who have time and means to come and see us. They shall find a John Bull hearty welcome. The garden is half a mile, a delightful walk, from the residence of the Bishop and the Town Hall of Wells.

THE TONGUE OF THE DUCK.—When we consider the particular use which the duck makes of its tongue, we shall immediately perceive that it is endowed with great and unusual sensibility. The duck, unlike all other birds, discriminates its food, not by sight or by smell, but by the touch of its tongue. It thrusts its bill into the mud, just as a fisherman throws his net into the sea, and brings up whatever it contains: from this mouthful of stuff it selects, by the tongue alone, what is good for food, and every thing else is rejected.—*Swainson's History of Birds.*



## BRISTOL AGRICULTURAL SOCIETY.

## PLOWING MATCH FOR 1836.

The annual Ploughing Match of the above Society took place on Wednesday, Oct. 12, on a piece of land in the parish of Siston, Gloucestershire. Sixteen ploughs were entered, and much interest was excited by viewing the labours of the several competitors. The ground was rather unfavourable for showing the skill of the ploughmen to the best advantage, but on the whole the performance was very good. The labours of the field were concluded about four o'clock, after which about fifty gentlemen sat down to a substantial dinner, provided at the Horse Shoe Inn, Downend, W. Miles, Esq., M.P., President of the Society, in the Chair, supported on his right by Col Sealy, T. Kington, and M. H. Castle, Esq., and on his left by the Sheriff of the borough of Bristol, D. Cave, Esq., and G. W. Hall, Esq.; E. H. Sampson, Esq., of Henbury, presided at a second table.

On the removal of the cloth the usual loyal toasts were drank.

D. Cave, Esq., proposed the health of "Mr. Wm. Miles, the President of our Society." (*Cheers*).

The CHAIRMAN.—Mr. Cave and gentlemen, I really feel exceedingly obliged for the kind manner in which my name has been proposed and received. As president of this society, I feel that very peculiar duties devolve upon me, for as the society unites, in Bristol, a numerous class of persons who look more particularly to the commercial and manufacturing interests, it may be thought, by others, that their success is somewhat disconnected from that of the cultivators of the soil. But, much as I have read, and much as I have thought upon the subject, I cannot bring myself to believe otherwise than that the prosperity of the three great interests into which the country is divided—the interests of commerce, manufactures, and agriculture—are intimately blended. I certainly do regard agriculture as the mother upon whose prosperity the welfare of its offspring, manufacture and commerce, depends, but still, the intimate connection, the sympathy, I might say, subsisting between the three is such, that the prosperity of the one is mainly dependent upon that of the other. If there should be any doubt of the truth of this, I would ask the agriculturists to recollect in what circumstances they were placed at the close of 1825, when the commerce of the country was paralyzed. What then was their condition? They had to meet very many reverses, but the worst feature of all was, that they had no customers, and that, consequently, the value of their products declined beyond a remunerating price. I am delighted with this opportunity of speaking to facts which must tend to disabuse the minds of the yeomanry of the fallacies which, indeed, were but too much promulgated by the committee which sat in 1823. It is now proved that, in average years, this country grows a sufficient quantity of corn for its own consumption, and that, in any thing like a superabundant year, it produces more than is sufficient for its use; and I allude to these facts to show what a folly it is to look for high prices, and to show, further, that any amelioration of their present condition can only result in an alteration of the contracts between landlords and tenants, and the result of my inquiries is,—and I have paid considerable attention to the subject,—that where, in fixing agreements, the average has been taken at 60 or 65, they must fall to 50 or 55, before they can be placed upon a footing satisfactory to both parties. (*Cheers*.) I speak this as a member of the committee appointed in the last session to inquire into the causes of agricultural distress, and I believe I speak the sentiments of almost every member of that body.

The CHAIRMAN then proposed "The Vice-Presidents of the Society."

E. SAMPSON, Esq., returned thanks.

The CHAIRMAN then read the report of the Judges, Messrs. Thomas Lawrence, Winterborne Court; Henry Escott, Christon, (Somersetshire); and Charles Hockey, Dyrham and Ilinton, and the following bounties were awarded:—

To William Anstey, of Gloucester-Road Farm, in the

parish of Frampton Cotterell, the owner of the best plough—Five Pounds.

To Isaac Simmonds, manager of the best plough—a Society's Coat and Buttons, and One Pound.

To Robert Marsh, manager of the second best—a Society's Coat and Buttons.

To Daniel Sharp, manager of the third best—One Pound.

To Mr. Thomas Howe and James Froud, for having performed their work in a masterly manner—Bounties of Ten Shillings each.

To William Tanner—a Bounty of Seven Shillings and Sixpence. And

To John Young, John Cooper, Robert Pinnell, Stephen Baber, Henry Parker, Thomas Guest, John Hewett, George Wookey, Thomas Selvey, and William Hunt—Bounties of Five Shillings each.

During the reading of the report, the whole of the competitors were in attendance, and the several successful candidates were successively addressed in a kind and familiar manner by the respected chairman. The unsuccessful candidates were also encouraged by him to redouble their efforts on a future occasion.

The CHAIRMAN then gave "Speed the Plough."

E. SAMPSON, Esq., begged permission to give a toast—"Mr. Hall, and the yeomanry of the Bristol Agricultural Society."

G. W. HALL, Esq., after some prefatory observations, said, I am anxious, however inefficient, to follow up what has been said by our excellent Chairman, bearing upon the objects and utility of the society. The farmer is, in fact, like the hull of a vessel, and as that, without the aid of canvas, would be useless for the purpose for which it is designed, so would the efforts of the farmer also be unavailing, unless they were fostered and assisted by those to whom they ought to look up as to their natural protectors, and with whose interest their own is intimately blended. I respond most cordially to the sentiment expressed by our respected Chairman, that it is a great delusion to expect high prices. But there are other means from which assistance is to be had, and they are within the reach of every one who chooses to employ them. I have lately visited some of the agricultural districts; I have been on the estates of Mr. Coke, of Norfolk, and to Scotland, and I find improvements there in practice which my neighbours have yet to learn. You need not, however, go so far as that to see what can be done by ingenuity and economy, for you may go to the manufactories of Bristol, and there you may learn how it is that, by combining these excellent qualities, the proprietors are enabled, with small profits, to drive a lucrative trade, and to amass wealth—and here I must take leave to say that among this class the society numbers some of its earliest and best supporters. You may go to their establishments, and see the perfectibility of their machinery, and then come home and apply the lessons you may there learn to the improvement of your own implements, for it is only by applying similar skill in your own occupation that you can expect to thrive.

Any protection we may seem to have from the competition of foreign countries is purely artificial, and all that now remains for us to do is, to make the best of the situation in which we find ourselves. With respect to the labouring classes, we are all interested in their welfare, and I contend that it is as much the interest of the farmer to promote their comfort as it is his interest to increase his crops, or improve the breed of his animals; surely the animal who most assists him in the prosecution of his labours is most deserving of his consideration; and this is one reason why agricultural societies do good: they tend to make the men more skilful, and, in that way, they are productive of a great deal of benefit. Let the farmers, then, go a little farther than their own hedges—let them go to Mr. Marnont's office, and enter their names as subscribers—for, even here, the sinews of strength must be kept up—let them follow the advice I give them, and if, in return, they get but one additional idea, it will be like the seed they sow, productive of a ten-fold increase. It was said by Lord Nelson, "England expects every man to do his duty;" let, then, every farmer do his duty, and thus

will be promoted the well-being of the noblest country on the face of the globe. (*Cheers.*)

"The health of the Censors, Messrs. T. Lawrence, H. Escott, and C. Hokey."

Mr. LAWRENCE returned thanks.

The CHAIRMAN proposed the health of Mr. Marmont, the honorary secretary.

Mr. MARMONT returned thanks.

T. KINGSTON, Esq. proposed "The Members for the County of Somerset."

The CHAIRMAN—I little expected the compliment now paid me, as one of the representatives of the county of Somerset, and I can assure you, when I relate to my hon. colleagues—and one of them, Mr. Sanford, I hope to meet on Saturday next—they, no less than myself, will feel greatly obliged for your present kindness. I am sure I can say, with perfect sincerity, that we have endeavoured as much as possible to discharge our duties for the benefit of society generally. Though born into and connected with the commercial interest, I may say I have been bred an agriculturist; but, as I said before, I am favourable to all classes, for I am persuaded that, in proportion as the interests of each become more intimately blended, the better it will be for happiness and prosperity of the country generally. I will again take the liberty to warn my agricultural friends not to indulge in any expectation of relief from the government, for it is not in the power of any legislature, no matter what party may be in power, to give it; and why? because we are not now consumers of foreign corn; you are now your own growers, and all you can now look to is to effect such improvements as may be likely to be profitable and useful. Much has been done in the last session to effect this; two bills having passed, to which I would now call your attention, namely, the Tithe bill and a bill for facilitating the Inclosure of Common Field Lands; and I would beg of you who have any grounds uninclosed to look to it, as you have the means of doing yourselves great service without the necessity of going to Parliament and incurring a heavy expense for its sanction. To the Tithe bill, during its progress, I devoted considerable attention, and I can now state that, though it may not be the best that could have been devised, it is nevertheless a useful measure, and calculated to be beneficial to all classes interested, though I believe its advantages are more on the side of the agriculturist than on that of the minister, for whatever capital may be expended on lands in bringing them into cultivation, the rector hereafter will not be able to come to the occupier and demand of him the tenth of the produce resulting from such improvement. The Legislature has given you to to the 6th of October, 1838, to effect an amicable adjustment with the tithe owner; but if, by that time, no arrangement should be entered into, then the commissioners will step in and make the settlement of the question compulsory, and you will have, in addition, to pay the expenses of the surveyors. Mr. M. concluded by recommending his friends, the yeomanry, seriously to consider the means of improving the present system of cultivation, and by assuring them of his determination to introduce to their notice, through the medium of the society, every recent improvement.

Several other toasts followed, and, in conclusion, D. Cave, Esq. once more proposed the health of their worthy president as "The Chairman on that occasion."

The toast was received with three times three, and after a few further remarks from Mr. MILES, he vacated the chair, and the company broke up, highly delighted with the entertainment of the evening.

### THE GREAT SALE OF CROWN ESTATES.

NEWARK-UPON-TRENT, NOTTS.—The auction of the important and valuable freehold in the vicinity of this town, belonging to his Majesty, proceeds with unabated interest, principally occasioned by its being known that the purchasers will have the power of creating many new voters by building, subletting,

&c. The property is exonerated from land tax, and the greater part is tithe free. It comprises the manor of Newark, valuable demesne lands, containing about 800 acres of rich meadow and arable land, with productive garden ground, with eligible sites for building purposes, the King's Hall, and numerous dwelling-houses and shops in Newark. The whole of Lincoln-row, three wharfs, a dry dock for building vessels, &c. &c. This great estate is divided into 213 lots, and is sold by order of the Commissioners of Woods, Forests, and Land Revenue. The manor and 204 lots are leased to the Duke of Newcastle for a term which will expire at Lady-day next. The Town Hall is daily crowded. Messrs. Driver are the officiating auctioneers. This day's sale was considered the most important, and comprised the following lots:—

High Pig Ley Closes,	3A. 5P. ....	£450	
of 4A., with a wind-	4A. 2R. 23P. ....	530	
mill and stable . . .	4A. 19P. ....	520	
4A., with a barn . . .	3A. 1R. 26P. and stable	480	
4A. of arable ground .	5A. 3R. 25P. ....	800	
4A. 3R. 33P. of arable	2A. 3R. 8P. ....	250	
3A. 18P of ditto . . .	16A. 2R. 3P. ....	1750	
5A. 1R. 32P. ....	A windmill and garden	160	
3A. 1R. ....	300	A windmill, cottage,	
3A. 1R. ....	300	sheds, and 2A. ....	
Ditto with mill & stable	260	1A. 1R. 22P. meadow . .	
THE FORE SAND CLOSES.			
4A. 1R. 6P., with barn	440	3A. 2R. 10P. ....	
4 ditto ditto . . .	320	1A. 2R. 22P. ....	
8A. of arable . . .	610	2A. 2R. 25P. ....	
Ditto . . .	620	3A. 1R. 6P. ....	
7A. of ditto . . .	570	3A. 1R. 8P. ....	
4 ditto . . .	370	FARNDOWN TOWNSHIP.	
4 ditto and building .	469	3A. 3R. meadow . . .	230
4 ditto . . .	430	Ditto . . .	450
4 ditto . . .	300	2A. 2R. ....	320
10A. 2R, 24P. ....	810	Ditto . . .	480
HIGH TOWNLER CLOSE,			4A. 3R. 38P. ....
STORE.			11A. 2R. 26P. ....
4A. 4P. of meadow . .	590	3A. 2R. ....	400
3A, 6P. ditto . . .	470	Ditto . . .	440
Ditto . . .	470	Ditto . . .	410
3A. 7P. ....	470	Ditto . . .	450

SATURDAY.—The result of the last day's sale has been equal, if not more in amount, taking into account the value of the lots, than any of the preceding. The plots of land in Low Pig Ley Closes in Sand Pit ditto; in the township of Balderton, in Farndon township, and at the North and South Clifton, produced high prices. The valuable manor of Newark, with its rights, royalties, and privileges, was withdrawn, but it was understood that the Duke of Newcastle, who holds it on lease from the Crown, will retain possession. Produce of the day's sale, 22,945*l.*, as announced by Messrs. Driver.

Summary of the whole:—

First day's sale . . . . .	£18,005
Second ditto . . . . .	25,800
Third ditto . . . . .	23,500
Fourth (and last) . . . . .	22,945

Total . . . . . £90,250

A NEW ARTICLE OF EXPORT.—Driving coals to Newcastle, and salt to Dysart, used to be thought absurd; but what would have been said of the driving of hay to America. This, in consequence of the failure of the crop there, is actually the case. There are at present, in the two export sheds here, 2500 stones of that commodity, ready to be shipped on board the Amity of Aberdeen, which is just about to be laid on for Miramichi. It is expected that she will take 10,000 stones. A larger vessel than the Amity is also to be dispatched from the Clyde to America with this novel article of export.—*Dundee Advertiser.*

## GRANTHAM AGRICULTURAL ASSOCIATION.

At the annual meeting of the Grantham agricultural association, held on Friday the 14th Oct., the premiums were awarded as follows :

For the best ploughman, with a swing plough and two horses abreast, 3*l.*—Wm. Worlidge, servant to Mr. Pindar, Barrowby.

For the second best ditto, 2*l.*—John Hallam, servant to W. Shield, Esq., Frieston.

For the third best ditto, 1*l.*—Mat. Baxter, servant to Mr. Glen, Sproxton.

For the best ploughman under 18 years of age, 3*l.*—Sam Staple, servant to Mr. Savidge, Leadenham.

For the second best ditto, 2*l.*—Wm. Bullock, ser to Mr. G. Sill, Honnington.

For the labourer in husbandry with a swing plough and two horses abreast.—H. Hayto, servant to Mr. Wyles, Ponton.

For the second best labourer in husbandry with a swing plough and two horses abreast., 2*l.*—J. Boyall, servant to the Rev. J. Plasket, Harlaxton.

For the Farmer's son not in business, with a swing plough and two horses abreast, a silver cup value 3*l.*—Matthew, son of Mr. Savidge, Leadenham.

For the labourer in husbandry who shall bring up (within 15 miles of Grantham) the largest family without parochial relief; those who have received the premium at Lincoln to be deemed disqualified, 3*l.*—Jos. Singleton, servant to Mrs. Lieusley, Stragglethorpe.

For the second best ditto, 2*l.*—C. Bembridge, servant to Mr. G. Sills.

For the servant in husbandry (bona fide) who shall have lived not less than five years in his last place (within 15 miles of Grantham,) character being particularly attended to, 3*l.*—J. Theekett, servant to W. Dolby, Esq., Marston.

For the second best ditto, 2*l.*—Wm. Burgin, servant to Mr. G. Sills.

For the third best ditto, 1*l.*—J. Everitt, servant to Mr. Annis, Sproxton.

For the female who has lived a widow for the longest period (resident within 15 miles of Grantham) and who has not received parochial relief; number of family and character to be particularly considered, 2*l.*—Mary Goding, Grantham.

For the second best ditto, 1*l.* 10*s.*—Mary Tyres, Ingoldsby.

For the third best ditto, 1*l.*—Ann Morris, Branston.

For the shepherd who reared in 1836 (within 15 miles of Grantham) the greatest proportionate number of lambs from any number of ewes not less than 100, 3*l.*—John Wade, servant to Mr. Dickinson, of Ponton; reared 254 lambs from 235 ewes put to the ram.

For the second best ditto, 2*l.*—Robert Frances, servant to Mr. F. Musson: reared 322 lambs from 310 ewes put to the ram.

Class I. For the best two-year-old cart gelding or filly, bred by the exhibitor, and bona fide his property at the time of showing, 3*l.*—Mr. F. Vincent, Barrowby.

2. For the best bull, which shall, from the 1st of January, 1836, have served cows up to the time of showing, at not exceeding half a guinea per cow, 5*l.*—Mr. Baker, Cottesmore.

3. For the second best ditto, 2*l.*—Mr. Casswell, Osbourneby.

4. For the best milch cow or heifer, having produced a calf within ten months, and in milk at the time of showing, 3*l.*—Mr. J. Green, Grantham.

5. For the second best ditto, 2*l.*—Mr. Baker, Cottesmore.

6. For the best heifer, not exceeding two years and six months at the time of showing, 2*l.*—Mr. Baker, Cottesmore.

7. For the second best ditto, 1*l.*—Sir T. Whichcote, Aswarby.

8. For the best pen of six ewes, that have suckled to the 1st of August, 3*l.*—Mr. Sills, Casthorpe.

9. For the second best ditto, 2*l.*—Mr. Pindar, Barrowby.

10. For the best pen of 6 gimmers, 3*l.*—Mr. F. Vincent, Barrowby.

12. For the best pen of six shearlings, 3*l.*—Mr. G. Sills, Honnington.

13. For the second best ditto, 2*l.* Mr. T. Roberts, Ponton.

14. For the best boar of any age, 2*l.*—Sir T. Whichcote, Aswarby.

15. For the second best ditto, 1*l.*—Mr. W. Large, Grantham.

16. For the best breeding sow of any age, 2*l.*—Mr. J. Millhouse, Barrowby.

17. For the 2d best ditto, 1*l.*—Mr. C. Baker, Grantham.

Amongst the extra stock which was considered worthy of commendation, were a heifer, the property of Mr. Hickson, and two sheep belonging to Mr. Pindar of Barrowby. Mr. Baker liberally returned two sovereigns, the amount of the prize awarded to him for the second best cow.

The stock exhibited at the above meeting was considered to be superior, and more numerous than that on any former occasion. The pens of ewes were all excellent, and the competition in that class consequently much more spirited than usual. The dinner, as usual, took place at the Guildhall, at which Sir W. E. Welby, Bart. presided, in the absence of his son, G. E. Welby, Esq., M.P., who was so much indisposed as to be unable to attend.—The successful candidates in the classes of ploughmen, servants, and widows, were severally introduced in the course of the afternoon, and had the prizes delivered to them by the worthy chairman, who accompanied the presentation of each with appropriate and encouraging remarks.

## THE GRAVESEND AND ROCHESTER AGRICULTURAL ASSOCIATION,

FOR THE ENCOURAGEMENT OF SERVANTS AND LABOURERS, ESTABLISHED 1834.

The annual ploughing match was held on Thursday, 20th October, and the weather being extremely favourable, it attracted a considerable number of spectators, including the greater portion of the farmers and land proprietors in the district. The ploughing took place in a large clover ley on the farm in the occupation of Messrs. Henry and William Solomon, called Cheney's farm, at Thong, near Gravesend. Thirty ploughs, twenty-eight of which were four-horse ploughs, started for the prizes. The whole of the work was done in the first style, and the judges had some difficulty in awarding the prizes, which were ultimately delivered as under:—

No. 1. The best ploughman, with a turnriste, or other plough, with four horses, 3*l.*; won by James Ward, servant to Mr. William Russel, of Swanscomb. The driver, 12*s.*

No. 2. Second best ploughman, 2*l.* 10*s.*; won by Thomas Roll, servant to Mr. John Selby, of WOULDHAM. The driver, 10*s.*

No. 3. Third best ploughman, 2*l.*; won by Richard Blake, servant to Mr. Figgus, of Northfleet. The driver, 8*s.*

No. 4. Fourth best ploughman, 1*l.* 10*s.*; won by James Semark, servant to Messrs. Knight, of Cliffe. The driver, 6*s.*

No. 5. Fifth best ploughman, 1*l.* 5*s.*; won by William Hutchins, servant to Mr. George Comport, of Cooling. The driver, 4*s.*

No. 6. The best ploughman, with a turnriste or other plough, with three horses, 2*l.* There was no competitor for this prize, one plough only starting; but 10*s.* were awarded to the ploughman, George Burt, for the excellence of the work.

No. 7. The shepherd who has reared the greatest number of lambs from a flock of ewes, from 100 to 300, from Michaelmas, 1835, to the 20th of July, 1836,

- 3l; won by John Tomlin, servant to Mr. Carlow, of Wouldham.
- No. 8. Ditto, who has the second number, 1/ 10s; won by John Botting, servant to Messrs. H. and W. Solomon, of Thong.
- No. 9. The shepherd who has reared the greatest number of lambs from a flock of ewes, exceeding 300, from Michaelmas, 1835, to the 20th of July, 1836, 3l; won by George Maddocks, servant to Messrs. Knight, of Cliffe.
- No. 10. Ditto, who has the second number, 1/ 10s; won by ———, servant to Mr. Bargrove, of Northfleet.
- No. 11. The shepherd who has had the care and management of a wether flock, not less than 150, and the least loss to every hundred sheep within the year from Michaelmas, 1835, to Michaelmas, 1836, 2l; won by William Smith, servant to Mr. W. Russell, of Swanscomb.
- No. 12. Ditto, Second, 1l; won by William Olliffe.
- No. 13. The labourer who has worked for the same family or on the same farm, the greatest number of years, 3l; won by Alexander Young, servant to Mr. Wells, of Southfleet, for 54 years.
- No. 14. The second, 1/ 10s; won by William Lane, servant to Captain Edmeades, of Rusead, for 51 years.
- No. 15. The labourer who has brought up the largest family, and received no parochial relief, 3l; won by Thomas Lane, servant to Mr. Bargrove, of Northfleet.
- No. 16. The second, 1/ 10s; won by Moses Semark, servant to Messrs. Knight, of Cliffe.

Several minor prizes were voted to other ploughmen for good work, and not within the precise regulations.

The company reassembled in the evening at Gravesend, when about 80 gentlemen sat down to an excellent dinner, provided at the New Inn, at which W. M. Smith, Esq., of Carner, presided. The Chairman, in a neat address, congratulated the company on the flourishing state of the Association, and the beneficial results it had produced. Several other appropriate speeches were made in the course of the evening, and the excellent singing of Mr. George Hodges, and also of several professional vocalists, detained the company to a late hour.

JUDGES.—Mr. James Edmeades, Hever Court; Mr. M. Comport, Decoy; Mr. George Knight, Perry Hill; Mr. A. Spong, Frindsbury; Mr. John Murton, Cooling Castle; Mr. William Wells, Cobham; Mr. William Bargrove, Dundale.

### BRESLAW AUTUMN WOOL FAIR.

The following communications which have been received by mercantile houses in Leeds, relative to the above fair, held during the present month, will, we trust, be of service to the manufacturing interest in this district. No reduction in prices appears to have taken place since the last great wool fairs there:—

"BRESLAW, OCT. 6, 1836.

"Immediately after the spring fair a flatness, but of a very short duration, manifested itself in our wool market; but such being generally the case after the first immediate want of an article having been supplied it caused neither fear nor surprise, for at the end of July this dullness gave way to a better demand, owing to some of our English friends coming again and buying very freely of the middle sorts of wool, prices being the same as in the clip. The principal purchases were made in Polish fleeces and Silesian lambs,

"Our English friends were now joined by others, as well by the manufacturers from the Netherlands, as the inland staplers, and by the middle of August our trade was very brisk and prices firm. The prices

of the great sales in London, coming about this time somewhat lower, produced no change in our markets,—for, simultaneously with the account from London, we received information of the great wool fair at Pesh, where above 60,000 cwts. of wool was sold at higher prices. Adding to this the fact of New South Wales wool, even at the reduced prices, being considerably dearer than German wool, the transactions in the latter became more extensive, and prices had an upward tendency. The accounts from England up to this time were also very fair, and if they perhaps were not quite as favourable as the year before, they at all events offered a favourable prospect for the autumn trade, as it was well known that the English manufacturers had as yet bought very sparingly.

"Such was the position of the wool trade up to the middle of last month, when the political as well as the commercial horizon became at once overcast and gloomy. The unsatisfactory state of political events in Spain and Portugal, added to the continued export of gold from England, which induced the Bank of England to raise the discount on all commercial bills, which was followed by all the banking interest, as well in England as on the continent, created a scarcity of money which, I am free to confess led me and other experienced merchants to fear the result of the coming wool fair. And yet, contrary to all expectation, a great number of buyers came from all parts of the continent. The greatest competition was between the inland manufacturers who, returning from the Leipzig fair, where they had disposed of the stock of their woollen cloths at fair and remunerating prices, now endeavoured to supply themselves with a stock of middle sorts of wool. But their being too small a supply for the demand, the whole, consisting only of 8,000 cwt., was bought very rapidly at an advance of 1d. to 1½d. per lb. Fine Silesian summer wool was also in great demand, and commanded high prices. From 18,000 cwt., which was the whole quantum brought to market, 14,000 cwt. were sold, and what is left is mere rubbish.

"If our manufacturers should continue to increase as they have done for some years past, we shall be independent of the English market, particularly in the middle qualities of wool.

"In the finer qualities not much is done by our manufacturers yet, but we observe that they begin buying odd flocks.

"The stock of wool in Breslaw is about 7,000 cwt.; in Berlin, 18,000 cwt.; and in Hamburg, 20,000 cwt. The wool on hand in Breslaw may be left out entirely, as it is not suitable for your market. In Berlin the greater part consists of Polish wool from 2s. 3d. and 2s. 6d., and could have been sold, had the holders been disposed to take last year's prices; but they ask 2d. and 3d. per lb. more, and as it is chiefly in the hands of those who can hold it, they are sure to obtain their price in November or in the coming spring. Of the stock in Hamburg we cannot judge so accurately, as it consists of Danish lambs and Hanoverian wool, and other kinds; but if we take the stock of wool fit for cloth there to be from 12 to 14,000 cwt., we should be very near the truth."

Breslaw, 8th October, 1836.

"I found prices higher than I expected. The inland manufacturers, who had a very good market for their cloth at the last Leipzig fair, bought freely, and certainly paid high prices, particularly for the middle qualities.

"At the beginning of the fair there was a backwardness on the part of the buyers. I am glad that

I bought then, or I could not have bought at all; at the end of the fair I could have re-sold with a profit.

"I don't think the prices higher than at the last fair here, but the wools then were of a better character. The English buyers were exceedingly cautious, and bought very little; but for the inland manufacturers buying so freely, prices certainly would have drooped a little. The quantity for sale was about 16,000 cwt., of which about two-thirds were sold: the remainder was principally Polish wool, at high prices, the holders of which were not concerned to sell. From what has transpired here, you need not fear much decline in the value of German wool."

"BRISLAW, Oct. 6, 1836.—The quantity of wool offered for sale at this fair amounts to 17,500 cwt. or about 5,000 bags. The prices at which the sales were effected were considered quite equal to those realized at the Spring fair; some sorts fetched a little more. Fine Silesian Summer Wools were readily bought for inland consumption. Locks and fine Silesian Lambs were eagerly sought, and of the latter all were sold. About 6,000 cwt. only remains unsold, and, as very little more is to be expected, good prices are expected to be realized."

## TO THE EDITOR OF THE FARMER'S MAGAZINE.

*Spilsby, East Fen, Oct. 12.*

SIR,—I write to inform you what kind of a season we have had in Lincolnshire, and I think I may say there has not been one so unkind for many years. The spring was very wet, which caused the seed time to be very late, particularly upon low lands and clay soils, which has proved a very great injury to the crops in such cases, especially in the Fens, where the soil is light. The weather took up about three weeks before May-day, and continued very dry with a cold north and north-east wind, with sharp frosty nights through the month of May and part of June, which upon light soils cut off all the late sown crops in the Fens, and ruined hundreds and thousands of acres, both of wheat and oats, and I should say from the knowledge I have of the state of crops, that wheat is by far the lightest crop this year, than it has been for these last twenty years: a great deal will not average more than two quarters per acre, and thousands of acres not so much as that. Oats are not more than half an average crop. The barley crop is not so light as either the wheat or the oats, and is tolerably good in quality, but a great deal must be spoiled in the fields, that is for making malt; the weather is wet and cold—a great deal yet in the field, and last week many hundred acres yet standing, looked quite green, both upon the wolds and in many other parts of Lincolnshire.

The turnip crop is a complete failure, both upon the Wolds and in the Fens; they came up very well, and plenty of plants in most places, but the weather continuing extremely dry, the fly soon appeared, and made very destructive ravages amongst the young plants; there is also another kind of vermin, grub or insect, called the Rag-Jack, which has proved very destructive to the turnip crop this year,—indeed the turnip and cole were never known to be worse than they now are. The cabbage is also in many instances very bad, the leaves being covered with a kind of filth, and wherever it happens, they quite destroy the plant. I believe the filth to be bred by the Lady-cow, as I have found many nearly all eaten away with these vermin, and upon examination, I have found as many as fifty of these Lady-cows upon the leaves and stalk of one plant. I pulled up some plants which seemed to be dying, to examine the cause, and found as many as from one to two hundred short white grubs at the root of each of those plants. These noxious insects are quite ruinous to the cabbage plant wherever they happen to come,

and should the winter be severe, sheep-keep will be found to be very scarce, and dear. I think if the mangel wurzel had been planted upon a larger scale, it would have been of great importance to the farmers this year, as what I have seen of that vegetable is a tolerable good crop, but the article is not so much in vogue as it was some years since, and moreover as the hay crop have not been so light for many years, the farmers in general seem to be ill-prepared to meet a hard winter. The wheat seed time has commenced, but the weather is unfavourable at present for that business.—I am Sir, yours, &c. A LINCOLNSHIRE FARMER.

## GLENKENS' AGRICULTURAL SOCIETY.

The Glenkens' Agricultural Society held their Annual Show at New-Galloway, on Thursday the 6th October current, and, notwithstanding the unpropitious state of the weather, a very considerable number of gentlemen from different and distant districts of the county were present. The Judges—Messrs. Reid of Kirkennan, Stewart of Barharrow, M<sup>o</sup>Queen of Auchenbay, for the different classes of cattle; and Messrs. M<sup>o</sup>Turk of Hastings Hall, and Moffat of Craigleaving, for the sheep stock—then commenced their labours, and after a careful and critical examination, awarded the premiums as under:—

For the best bull of the Galloway breed, Mr. Cannon, Milton Park.  
 Second best ditto, Mr. Grierson, Craigmuaie.  
 For the best cows and calves, Mr. Grierson, Craigmuaie.  
 Second best ditto, Mr. Shaw, Parkrobin.  
 For the best grey, Mr. Cannon, Shield.  
 Second best ditto, Mr. M<sup>o</sup>Quhir, Barnshalloch.  
 For the best stirks, Mr. Shaw, Parkrobin.  
 Second best ditto, Mr. Hyslop, Glenlee.  
 For the best tup hogs, Mr. Jamieson, Holm.  
 Second best ditto, Mr. Wallace, Knockgrey.  
 For the best gimmers, Messrs. Shaw, Waterhead.  
 Second best ditto, Mr. M<sup>o</sup>Turk, Barley.  
 For the best Ayrshire cow, Rev. James Maitland of Kells.  
 Second best ditto, Mr. M<sup>o</sup>Turk, Waterside.

After the exhibition, about sixty gentlemen sat down to a most excellent and substantial dinner, provided by Mrs. Wilson of the Kenmore Arms. The Rev. James Maitland of Kells, in the chair; and Captain Walker, of Bells-Bank, croupier. It would far exceed our present limits to report the many excellent speeches delivered in proposing the numerous toasts which were drunk, and the eloquent replies made by gentlemen present; but all who know the amiable, excellent, and learned qualifications of the gentleman who presided, added to the general intelligence of the yeomen of the district, may easily conceive, what really was the case, that the meeting was harmonious and happy in the extreme.

AGRICULTURAL SOCIETIES. — It is certainly gratifying to observe the interest which appears to be excited in this part of the county in favour of the recently established agricultural society, and our readers will, we are sure, peruse with pleasure the report of their late meeting at Beddingham. The extension of such societies as this, forcing, as they do, upon the observation of all classes connected with agriculture, from the titled laird to the hard-fisted ploughman the truth that their interests are all bound together in the same bond—inciting the farmer to avail himself of improvements in the practice of his profession, and encouraging the labourer to new exertions of industry and independence, would effect more actual good for the agricultural interest, than a hundred committees in Parliament, and all the currency theorists put together.—*Sussex Advertiser.*

## AGRICULTURAL REPORTS.

### BERKS.

Ever since our last report the weather has been very unsettled, and there has been scarcely three dry days together these six weeks. In this county the harvest is not yet finished, for at the time while writing there are some small patches of both barley and oats to carry in almost every part of the county. The weather has been so cold, that very little corn has been injured by sprouting; but full half of the barley is uncommonly stained, and there is but a very small portion indeed that is quite bright; much of the barley has been carried together in a damp state, the weather having been so unsettled that it was impossible to get it completely dry. The barley crop is, in our opinion, a deficient one, and good bright barley must be very scarce; but there was a greater breadth of barley sown last year than usual, and this perhaps may nearly or quite make up the deficiency in the produce. The crop of oats is also a short one, but the extent of ground sown was greater than common, many of the farmers last season having sown oats instead of wheat, because of the shortness of manure, and because of the low price at which wheat was selling: most of the oats are much stained and carried in bad condition, and are unfit at present to feed horses, and old oats are in consequence selling for more money. The beans are podded well, and are of good size and yield well, and although short in the straw, yet we think them an average crop; but the weather has been so unsettled that they have been obliged to be carried in a soft state, and will be entirely unfit to give the horses until the spring. Old beans are advanced in price, and are now worth 46s per qr. A considerable breadth of wheat has been sown during the last week, and most of the ground worked well, and is got down tolerably firm, after being well rolled and trodden with the sheep: the sowing of wheat is probably now about half finished, but it will be some weeks before it is all done, as a considerable delay must take place in waiting for the making of manure, and some little hindrance occur while finishing the harvest. The advance in the price of wheat will induce most of the farmers to sow this year their usual number of acres, and many have commenced dressing their seed wheat who never done so before, they having now become most thoroughly sick of the smut. If the present wet weather continues, the wheat sowing will go uncommonly heavy, and the same will be retarded until a late season. Drilling of wheat (except on light soils) is getting out of fashion, it having been proved to yield less per acre than that which was sown. Immediately after our last report was written, the black maggot made its appearance among the turnips, and utterly destroyed, or most seriously injured, a great proportion of the young growing turnips; and a large brown grub also at the same time helped to increase the injury, and we are sorry to say that the crop of turnips altogether is a deficient one, and we lament this circumstance the more, because there is so short a stock of hay and straw in the county, and because the straw and fodder is so washed and stained by the wet as to afford little or no nourishment to the cattle that eat it. The long white bell turnip seems to be the sort that has best escaped the ravages of the fly and the maggot, and we think it

probable that the taste of this sort of turnip is not so palatable to these insects as other sorts, for we observe some few pieces of good bell turnips, while all the other sorts around have been nearly destroyed. There are some Swedes and a few pieces of rape in these parts, but if there should come a long and severe winter, we do not know what will become of the stock. We have now had three successive years of failure in the turnip crop. Many farmers who are short of keep are already disposing of part of their stock, and the late fairs have been very much overdone, and sheep, particularly wether sheep, are reduced in price; it is probable that mutton will be again scarce in the spring, as there seems but little opportunity to fat sheep, except with corn. Horses, cows, and pigs are somewhat lower in price, and this depression is no doubt principally caused by the scarcity of keep. Vetches yield uncommonly well out of the straw, and in some places the produce is greater than we expected; a vast breadth has been sown and they continue to be worth from 4s to 5s per bushel. A pretty fair portion of trifolium has been sown, many persons being desirous to give it one more trial; but we have not much opinion of its merits, as it will not grow where broad clover has recently grown, and it affords but little spring feed when it is most wanted, namely, after a hard winter. The winter oat does not answer the expectation of the farmer, for it produces little feed in the autumn, and is not near so good as vetches in the spring; but it may be useful to sow amongst vetches instead of rye, for we think it more palatable food, and does not so soon get hard in the stalk. Winter beans continue to be planted in a few places, and they are more certain of pods than the common sort, but the time in the autumn is so occupied in getting in the wheat crop, that the farmer cannot conveniently attend to winter beans, and it is also very difficult as well as expensive to keep the rooks from pulling them up in the winter. There is less cloverseed saved in this part of the country than we ever knew, and the weather has been very unpropitious for securing the same, it is expected to be tolerably productive; but if there is not an extraordinary quantity of foreign imported, seed must be very dear. There was a vast quantity of barley and oats left behind in the fields this season, it being impossible to rake it up clean, and the weather being wet the pigs have done uncommonly well in the stubble, but there being no acorns or beech mast in the woods, the pigs must be brought earlier into the market than usual, and we think that the stock of pigs in the country is far less than it was last year at this time. Walnuts and nuts are very plentiful, but apples and pears are rather a failing crop. Potatoes yield very well, and will most likely be cheap, this may be detrimental to the wheat grower, but still we cannot but rejoice, for it will enable the poor man who has a large family to wriggle through the winter, even if his earnings should not be very great. The price of labour is from 8s to 10s per week, and 8s per acre has been the price generally given for reaping of wheat, and 2s 6d per acre for mowing and cocking barley. This has been a sad year for bees, and not one-half of the stocks have gathered a sufficient quantity of honey to last the winter; but, notwithstanding this deficiency, there is so much imported from other countries that the cottager cannot obtain

more than 6d per lb for honey, and 1s 4d per lb for wax. The yield of wheat out of the straw is full as good, and in some instances rather better than we anticipated, but the crop per acre will be under an average, except on some of the very best cultivated land in the vale of White horse. A considerable quantity of wheat has been already brought into the market, but nearly the whole of it has been cleared off, for every clean parcel has been regularly purchased for seed, and every dry parcel has been purchased by the millers, and nothing hangs on hand but the soft and smutty. The barns of many farmers are beginning to get empty, and it will not do for the prudent man to commence too soon upon the ricks as they are so small in size and few in number. A short straw year is generally a ruinous year to the poor and needy farmer, for he being continually pressed for money, proceeds rapidly on with his thrashing, without a thought how soon his stock will be exhausted, and generally he finds his produce and money both gone so long before another harvest, and he becomes so involved, as to give up in despair or is so crippled as never to be able to recover himself again; we generally have observed more failures amongst the farmers in such years than in any other. The New Tithe Bill seems to attract but little attention amongst the occupiers of the soil, and we as yet scarcely hear of an instance of its being about to be acted upon in this county; both parties seem to be afraid they shall be taken in, but if the commissioners are men of business and integrity, we do not much fear the result, nor can we find any great fault in the principle of the measure. It seems that the share of the title owner's poor rates (and which has been generally paid by the farmer) is to be added to the amount paid for tithes, and the whole converted into bushels of corn, and which for ever is to be the *quantity* fixed on the farm. Now in many parishes this will be a great injustice to the proprietor of the land, as it is well known that it was the practice of many tenants to thrash their corn with machines, and in the winter turn nearly all their men on the roads, and let a great many go round by the yard lands and make the overseer pay the whole, and in every way lessen their own labour and swell the poor rates; they also kept the weekly price of labour, each man, as low as possible, and paid all above two or three children out of the poor book, and by these and various other schemes have so enhanced the parish rates, that it will, we conceive, be extremely unfair, because the tenant has paid a large proportion of his labour and expences out of, or by way of, rate, that the landlord's property shall be saddled for ever with an extra number of bushels of corn. It will well become all landlords to look well to this, or they will have much the worst of the bargain.—Oct. 3.

#### DERBYSHIRE.

Since my last report we have had a great variety of weather, but in general very little favourable to vegetation, the uncongeniality of the past months is remarkably evident in the alarming devastation made upon the turnip crop; the actual damage sustained in the midland counties by the loss of this crop is immense. There exists a diversity of opinion as to the cause of this crop being damaged. The smother-fly has attacked almost every field and every plant; farmers in general attribute the loss of this crop to the ravages of the fly, without considering the real cause of the decomposition of the plants. If we take a cursory survey of the different turnip fields within our observation, it will become evident to the most careless observer, what is the real cause of the loss of this crop. Wherever the plants were

thin set and on a more dry and elevated situation, we invariably find the fly to have commenced its early ravages;—and from what cause? because that part of the field has offered to them a more sumptuous repast. The rays of the sun during the last three months, with their concommitting evils, have had a more free and easy access to those parts of the fields that were not shielded with the plants, there we find that evaporation has gone on more rapidly, and of course left the growth without moisture sufficient to succour the plant; a state of decomposition has of course succeeded, the plant has begun to recede, a stench the most horrid has succeeded, as that of course might be expected. All this has taken place before the fly, as one of the greatest blessings sent by Providence, has attacked the plants. Here then we find it evident that the flies are not the cause of the havoc made in the turnip crop, but that they are carrying off the effects of the uncongeniality of the last two months. Where the plants are thicker set, so as to form a complete cover to the ground, and exclude the vivifying rays of the sun, evaporation has gone on to a very small extent, so that the plant has had a sufficient degree of moisture to keep it in a healthy state, there we find that the fly has done comparatively little damage. The gelatinous parts of the plant have not been sufficiently decomposed to allow the fly to feed upon them. This, then, is a secondary corroboration of what I before stated, that the fly is not the cause of the decay in plants, but that they are carrying off the effects of some other cause, for we invariably find that they never attack any healthy plants. Animal and vegetable matter may be considered as nearly allied in regard of putrefaction. When you see a dead carcase lying upon the ground in a high state of putrefaction, you invariably find it attacked by the large flesh fly; would it not then be preposterous to say that that fly was the cause of the death of the animal because it was then attacking the putrefying carcase? Most certainly it would. It must appear evident to every superficial observer, that the fly is carrying off the effects of some other cause. Just so is it in regard of vegetable matter, the fly never will attack a plant till it is arrived at a certain state of decomposition, so as to separate the gelatinous from the fibrous matter to a certain degree. Here, then, we see the kind hand of Providence, in sending the fly to carry off the astonishing great mass of putrefied matter, which, if allowed to remain unmolested upon the surface of the earth, would undoubtedly create some severe pestilential disease throughout the country; but, instead of remaining, the fly by feeding upon it, converts the greater part of it into living matter. A pretty general idea of the decomposition of plants may be formed from what I about to mention. Last Thursday week, the neighbourhood of Mansfield, Nottinghamshire, and about seven miles around it, was covered with a dense mass of flies resembling the common gnat in size, so that it was impossible for any person to proceed along without having their eyes filled with them. This very probably did originate from the decomposition of plants, which gave support to the flies, Mansfield standing in the very heart of the turnip country. Some heavy rain, however, coming on silenced these troublesome fellows, and the frosty nights that have succeeded since, will undoubtedly check their increase. I should have wished to have dilated more fully upon the loss of this crop, but the limits of a letter forbids it. The same may be said of spring tares that were sown late for Autumnal reaping, the fly has attacked them in a similar manner; though, as I said before, I do not think the fly the cause of the destruction of plants,

but carrying off the effects; I have had one field completely destroyed in a similar manner. Cabbage, mangel wurtzel, and almost all other kinds of vegetable substance have suffered more or less from similar causes. Keep of all kinds is extremely scarce and very high: clover eddishes, to be mown and taken off the ground have been sold at 4l per acre, remote from towns. Hay is selling from 6l to 8l per ton, and is extremely scarce; the harvest is not completely finished in the Western parts of the county, some oats and a little wheat remaining abroad. There seems to be what I might almost term a sensible mania, seizing the farmers this year in regard to the Winter tares, they are sowing an amazing quantity almost everywhere; by suffering so severely the last summer it has taught them an important lesson against another. The farmers are extremely busy now in preparing their fallow ground for wheat, some little has been sown but not become general; many of them are sowing rye for Spring eating for the sheep. We have not had sufficient rain to saturate the ground to that degree so as to make it plough kind upon leys and stubbles. Wheat continues to come into the market very coarse and smutted, and very inferior in every degree to last year's growth. It is said by farmers, generally, not to yield so well neither in corn nor straw, to what it has done for the last three years; and I confidently affirm in opposition to other reports which you took from the *Morning Herald*, &c., that the crop is altogether inferior to what it has been for the last three or four years. Smut now forms the substance of the farmers' chit-chat at the market tables, most of them are feeling the effects of it, and wish to avoid it for the future if possible, some produce one thing and some another, but as to the real preventive, that remains still in obscurity. One humorous receipt I heard to-day, I will mention; it is this:—to take quick lime and riddle it amongst the corn in the barn during the time it is in the chaff. It is amongst the number of the mysteries that still surround the agriculturist. Oats are rather scarce, and I think they are likely to remain so: the farmer, from the scarcity of hay, will undoubtedly cut a great portion of them up, straw and corn together, for his cattle, being much cheaper than hay at its present prices. Barley continues to come into market extremely coarse and deficient in weight and quality. Our corn markets are now becoming more steady than they have been for some time. Wheat, from 18s to 20s per load; oats, at about 14d per stone; barley, from 36s to 42s per qr; Winter tares about 7s per bushel: there is a fair quantity of fine old wheat in the markets, which is much in request, the new being very much out of condition. Our fat stock markets are rather depressed, arising from a scarcity of food, the farmers being obliged to bring their stock to market to make room for those at home, but we shall undoubtedly find a reaction after a time, the stock that is now coming to market ought to remain at home at least two months longer, but the scarcity of keep compels the farmer to bring it to market prematurely, so that the stock he now brings to market and which ought to remain at home, will be wanted after a time. Lean stock is unsaleable, but few feeling inclined to buy.

October 7th.

S. P. G.

#### NORTH DEVON.

Since our last, the weather has in general been very boisterous, and attended with so much rain as to prevent the saving of corn, until the 4th inst.; on the morning of that day, and the two succeeding ones, we had a sharp white frost, and to the afternoon of the 8th the weather, with the exception of a

few light showers, was dry and pleasant, and the farmers were enabled to carry a considerable quantity of grain, which had been exposed for the previous two or three weeks. There were some (as is too frequently the case in such unfavourable seasons) who put their corn together on the first dry day, it may naturally be concluded that a great portion of this will be spoiled. The air has in general been cold, to this we may attribute the few complaints we have of grain sprouting, but where the best attendance has been bestowed, it is stained, and in some wet and exposed situations, the corn has been entirely spoiled. Those farmers who have estates on, or near coarse Moorlands, have still some thousands of acres of barley and oats in the fields, and much of the latter nearly as green as in the month of May; this cannot ripen, and doubts are entertained whether any part will be saved in a fit condition for market. We have had an opportunity since our last of inspecting a variety of produce, and find we can add little to what we have already said respecting wheat; smut is very prevalent, in other respects the quality is equal to the produce of last year, the yielding will be good, though from the deficiency in straw, it will be considerably below an average produce. New wheat is still very soft and unfit for use, at present this is of little importance, as the farmers have still much old wheat on hand; their expectations are raised with respect to the future value of this article, they are now getting for clean new samples fit for seed from 7s to 8s per bushel, and calculate on an increased price: how far their ideas will be realized must remain to be proved till the seeding time is over, we are not quite so sanguine in our opinions. In a few districts of the best barley land, where the farmers were enabled to sow the seed early, the harvest has been finished several weeks, the colour and quality of the grain saved in those places will be equal to the best runs of last year, with an average produce; on more inferior lands it is full bodied, coarse, and high coloured, straw thin, and the yielding under an average; much of the barley sown late, is supposed will not yield more than from 10 to 12 bushels per acre, the whole crop, if all now in the fields can be secured, will be at least  $\frac{1}{4}$  below an average. Oats are in general of a rusty colour, such as were sown early, will weigh nearly equal to the produce of last year; the sowings that succeeded will be found from three to four pounds per bushel less, and a large portion of the latter sown, is reckoned will not yield more than from 8 to 14 bushels per acre, we have even heard of a few fields, offered for sale at five bushels per acre; it is calculated that this grain will be found deficient of about one half of the produce of last year. The principal part of the spring corn, is like the wheat, out of condition, and unfit for market. The black caterpillars have in great part destroyed the turnip crop, and the bulbs that remain have been so much injured as to prevent their increase in size; most of the wheat arishes that were cleared early have been sown with turnip seed, a method not much practised here, though in the hope of its affording some assistance during the winter (fodder of every description being so scarce) it has been generally tried. In some situations potatoes look well, and a fair yielding is expected, but in general, and more particularly with the late sorts, we have never known so bad an appearance; yet as there is a great breadth planted, sufficient will be found for home consumption, though few can be reckoned on for exportation. Vetches have been known in this part only a few years, their usefulness was proved in so satisfactory a manner in the last spring, that a considerable quantity is now sowing, many



have been saved here in the past Summer of good quality, and are now selling at a low rate, which encourages the farmer to increase his tillage of the article. There was an abundant show of superior cattle at Barnstaple Fair on the 19th ult., and a greater number sold than has been known for many years; scarcely a fat, or half fat bullock remained unsold, though at a reduction of price, the former from 8s 6d to 9s per score, the latter about 7s 6d; store cattle realized about 5s per score. The supply of sheep was small, the few that were sold did not exceed 5d per pound. The number of horses exhibited was greater than known at any former fair, they consisted chiefly of those for draught, or inferior saddle horses, or ponies; the last descriptions were scarce, those that were prime, fit either for saddle or harness, obtained high prices, and were soon caught up, but the sale on good cart horses was dull, though a number of the common sort were sold at extremely low prices. Torrington Fair on the 3rd inst., was thinly supplied with cattle, and as the farmers stood out for higher prices than was obtained at Barnstaple, most of the beasts remained unsold.—13th Oct.

#### PERTSHIRE.

It is our painful duty at this late period of the season to state that a very considerable part of the crop throughout this large county, as well as throughout the higher districts of Scotland generally, is still exposed either in the stook, or standing in an unripe condition. Throughout the month of September the weather was cold and showery, with frequent gusts of boisterous winds, often accompanied with rain. On low swampy lands hoar frost had blackened the potatoe foliage by the middle of the month of September, and thereby put a final stop to future swelling. In the lower districts autumn sown wheats were got in before the last week in September, but much was cut in rather a green state, and carried to the barn yard before it was thoroughly dried, consequently, although the return in proportion to the area occupied may reach near an average, the sample in many instances will be coarse. On higher grounds, and near the limits of cultivating this grain, which, in this quarter is from 400 to 450 feet above the level of the sea, wheat is still standing, or in the stook, little having been carted on such altitudes. Barley has ripened for the most part unequally, and will produce rather a light and inferior sample even in favourable situations; it has for the most part been cut, but much still remains in the field on high and late lands. Oats for the most part are still standing, and many fields appear green, and this part of the crop will be sadly deficient in quality and quantity. Beans and peas will form a poor substitute for horse corn, as they are still exposed, and from the threatening aspect of the weather not likely to be secured in good condition. Oatmeal in many districts of Scotland forms a considerable part of the food of the lower classes, and is already rising in price. Potatoes were blanky, and having received an early check, will consequently be deficient in acreable produce. Turnips have been prevented from acquiring their usual size by the cold and drenching rains. Good samples of wheat for seed are in demand, and some famed English varieties have reached us, amongst which the Hickling, the Whittington, and the Uxbridge varieties are the most popular. Of the Hickling we have had a trial, and it appears to be early, as well as fine and prolific. The Uxbridge is well known, and yields a beautiful white sample. Of the reds, we esteem the blood red, as the most prolific, tolerably early, not liable to lodge, and a fine round sample. Of spring wheats,

we, after repeated trials, esteem the white bearded Tuscany, an early and prolific wheat; and this late season will teach us in Scotland to appreciate early varieties. Prices of grain are generally looking up with us; of live stock we have to report quite the reverse. The great cattle show at Perth was well attended on the 7th, an account of which will likely have reached London by this time. There were many eminent English agriculturists present, and, at the dinner, we heard them speak in most flattering terms of the stock brought forward; indeed we thought our Scotch agriculturists sufficiently proud of the eminence they had attained, and sufficiently sparing of their acknowledgements to their brethren in the south, from whose stocks the best specimens of Teeswater or short-horn cattle, and south-down sheep originally emanated. In one thing, we believe, we do need our English neighbours at such shows; and that is, in the vast display of grains, roots, and grasses, from public and private agricultural museums, which exhibit rare and useful varieties for culture, and which afford opportunities for improving pastures and corn fields by judicious selection. In England, and in many societies of Scotland, an overbearing anxiety is manifested for building the greatest quantity of beef, on the fittest forms, and at the least trouble, without paying any attention to improving the material that goes to make the beef.—Oct. 12.

#### DURHAM REPORT FOR SEPTEMBER AND OCTOBER.

For the last month or five weeks we have rarely had a fair day, and the last three weeks have been almost incessantly wet, and the corn which is standing out has a most miserable appearance, and must be unsound. A great portion of the wheat on the poor land districts is still out, and a great portion of which is to be cut. Nearly the whole of the oats on those lands are out, and many hundreds of acres will never be ripe. The land is in such a state that it is impossible for a horse or draught to come upon it, and the prospect of getting the wheat sown is gloomy beyond precedent. The wheat which has been got is scarcely fit to grind except without mixing with old, and it is well there is a good quantity of old stock left. The turnip is almost a total failure. The bean and pea crop will be entirely lost.

#### BRISTOL,

10TH MONTH, 20TH.—ANNUAL REPORT.

In consequence of the harvest having been protracted by so much wet weather, I have delayed my annual circular, not having been able to obtain, at an earlier date, such correct information, from the various parts of the kingdom, as would enable me to come to a conclusion relative to the crops. Wheat.—While cutting complaints were almost universal, and, owing to the small quantity of straw, most farmers spoke of a very serious deficiency; but, since thrashing has become general, the crop has not proved so defective as was anticipated, as the straw yields well. I do not consider that the produce will be equal to the last three seasons; but I am of opinion there is a full average, as compared with the general run of years. It has been considered all through the season, that there was a less breadth of land sown to wheat: I have no doubt of the fact, but not near to the extent calculated on; and, to counteract the effect of this, it must be borne in mind, that farmers are every year adopting a higher cultivation of their land; and from their now superior mode of management, it is made to produce a much greater quantity per acre than formerly: the produce,

from this circumstance, is, in some of the corn counties, prodigious. The quality in some districts, is very superior; but generally, it will be found of a rough, coarse grain, although weighing much better than could have been expected, and a great deal damp and smutty. The above remarks, as to the yield, may be generally applied to the South of Ireland: the quality is somewhat better than last season, but much of it brought to market in a very damp state, which creates a great loss in kiln-drying. In the North of Ireland, a great breadth of wheat land was last year sown to flax, which will cause a considerable deficiency in the shipments from that part of the kingdom. Barley is not a good crop; but from a portion of land having been sown with this grain, instead of wheat, I consider the gross produce to be a full average. The quality will be generally inferior; and a greater proportion than usual must be appropriated to grinding; but there will be some very superior. From a smaller quantity being fit for malting, the exhausted state of the last year's stock, and the great consumption, prices will no doubt range high through the season. Oats I consider to be fair in quantity, and the quality of a small proportion is superior to last season; but generally they are very much affected by the wet weather, which has so much retarded the harvest. Prices may be expected to range proportionably higher than wheat, owing to the increased consumption that must arise from the scarcity and high price of hay. Beans are defective. A part is of fine, bright, dry quality, but they are mostly in a soft damp state, and not fit for storing until they have been seasoned by frosty weather. Peas are about an average, and some kinds are of excellent quality. Potatoes are, of late, much more favourably spoken of than earlier in the season, and the produce is expected to be good, in many districts.

Taking a general view of the state of the Markets and of future prices, I do not expect the value of wheat or the trade, to be so depressed as for some years past; and we may calculate on prices not varying so materially as they have at the different periods of some seasons, unless there should be an unfavourable appearance of the growing crops in the Spring of the year. Much of the wheat, being put together in a damp state, will require some drying winds before it can be brought to market freely; and barley being in good demand at high prices will cause farmers to be less eager to thrash wheat, unless they can obtain fair prices for it. On the other hand, although in consequence of the backward harvest, we have been several weeks longer on the consumption of old wheat, and a portion having also been used last year for feeding cattle, still there is a large stock of old with the farmers. Before harvest, when prices were ranging about the highest, the holders of many years' growth were willing to sell, and kept the markets regularly supplied, until prices began to fall;—this disposition must have a great tendency to check any material advance.

#### GREAT YARMOUTH.

##### OCTOBER 5.—ANNUAL REPORT.

I solicit your attention to my report of the harvest, which has been later by three weeks than the two previous years. The latter part has been very tedious from great quantities of wet. Wheat is an average growth, but not near the quantity of 1834 and 1835, to include all the variety of soils in this county and Suffolk. The finest land, though not great in bulk of straw, was a standing crop till shorn, and will not only yield a great produce, but finer quality in many instances than last year. Some will suffer from want of patience in the grower, though the Wheat was entirely secured before any of our rains. Smut not to the extent expected; weight equal to last year's. Barley as fine a standing crop as ever remembered, with the exception of some lands given to scald, and others where the cultivation has been let very low; however, the produce as a whole is likely to far exceed last year's and prove more than an average growth. The quality very variable; full as much got bright and dry as the growth of last season, and a great part fine and fit for any malting; weight a little under last year's; not perhaps an eighth

abroad in the two counties when the heavy rains set in; and a great proportion of this was in a small circuit twenty miles to the north of Yarmouth; with this, the farmer has been obliged to contend with near a month of much fickle and unseasonable weather, it may now be considered as nearly all got, but too recently to speak to its condition, but it cannot be good; its colour is from dingy to black, but not so much grown as expected. Maple and Dunn Peas are most abundant crops, and all secured before any rain, in the finest possible order; very handsome and of great weight. Of White Peas the yield is proportionably small, secured well, but much injured by vermin. Oats deficient, secured well, and about the same weight as last year. Beans about two-thirds a crop, the quality promised small and handsome, but the weather must have been very destructive, if not to their soundness, to their condition—many yet unharvested. The harvest of 1835 has proved larger for Wheat and Barley than expected, but not so of other grain; all stocks exhausted in the extreme, except Wheat, of which there is some quantity, but not more than half that was held at the same time last season.

#### LYNN.

##### OCTOBER 11.—ANNUAL REPORT.

The unfavourable weather for the latter harvest has occasioned some delay in the publishing my report of the crops in this neighbourhood, and there is yet a considerable quantity of oats and beans to secure. A few years ago I had to report a large increase in the breadth of wheat, (particularly by the improved drainage in the Fens,) which having been the case in many other parts of the country with the subsequent abundant produce tended to the very low prices of this grain.—A reaction has been the consequence, and much less wheat was sown last Autumn, particularly upon the light soils. Owing to the backward Spring and very cold Summer, vegetation was so much checked, that all descriptions of grain were short in the straw and consequently are of apparently small bulk. Upon the high lands about three-fourths, and in the Fens and Marshland about half the crop of wheat was secured in good order, the remainder being mostly hurried up comes to hand in a damp state. The quality generally is good, although in some districts smut prevails to a considerable degree. The yield per acre proves much better than was expected, probably upon the whole a seventh over an average. Rye is of fine quality and yields well. Barley I consider barely an average crop; the early sown is decidedly the best, both as to quantity and quality, but from the ungenial season it varies materially according to the quality of the land; from half to two-thirds was secured before the rain, and although of rather a coarse yellow skin it is of good malting quality, especially the Chevalier; the remainder would have sustained much more injury but for the cool atmosphere during the rains. A considerable quantity must come in a very damp state although but little stained or sprouted, and this proportion is better than might have been expected. Oats are altogether much worse than for many years, very deficient in quantity and of light inferior quality, upon the high lands they were mostly harvested previously, but in the Fens very few were secured before the rain. Beans are below an average yield, but the breadth sown was large, scarcely any were stacked in good order, and those now in the fields will be much injured. Peas (grey or maple) were secured in fine order, they yield well and are of very handsome quality; very few white are now grown hereabouts. Wheat excepted, (and now not much of that), the stocks of all old corn are quite exhausted.

From all our information, we are led to the following estimate of the crops.

We consider WHEAT south of the Humber, above an average in quantity, and the bulk secured in good order, with a great deal of old left over from the former season: the quality and condition of the new crop as an average, may be pronounced fine, though not equal to the growth of the two preceding years, which were very superior: in the new Wheat this season there

are many unripe Corns, perhaps from the Wheat having been cut rather prematurely, or hurried in harvesting, or from the prevalence of an *under growth* of ears, by which means, all did not ripen together; but the yield per acre, notwithstanding the short straw and the generally reported thinness of the crop on the ground, has in numerous instances been found great, beyond all former experience. In Yorkshire we consider Wheat a full average in quantity, but the great bulk of the crop secured in poor condition, north of Yorkshire, and throughout Scotland, and all the late districts, we cannot but believe that the crop will prove very unproductive, owing to the wet ungenial weather, they have experienced for their harvest,—the last two months with hardly a sunny day,—and that there will, in consequence, be a large drain for the North on the southern crop. In Ireland the great bulk of their Wheat was secured in good, fair condition, and is superior in quality and yield to the two former seasons, but as applied to Ireland, we believe there is something in the general remark, of a very diminished breadth sown with Wheat this year, (though, as applied to England, we would not build upon such an assertion as a fact, to any extent) add to which, the exhaustion and absence of all stocks of old Wheat in Ireland, and we think that country will be troubled to keep its extensive mills moving this season, by its own produce. Under all the circumstances, we now relinquish the expectation of any considerably lower scale of prices for Wheat this season.

BARLEY is estimated as an average in quantity, but one third of the crop of the Empire has suffered more or less from the wet, bad weather. Our great Barley Counties, south of the Humber, were so fortunate as to secure the bulk of the crop in good condition, just prior to the wet weather setting in; but even in these counties, we must allow a considerable deduction for waste, from the wet weather overtaking their latter harvest. There seems hardly a bushel of old Barley left all over the country to meet the new crop, and taking into account the immense consumption of the article, and the great deduction of malting qualities from the crop, in consequence of the unfavorable weather the last two months, we shall be surprised if our top prices for fine malting Barleys do not rule nearer 50s than 40s per qr in this market, the greater part of the season. There has been an effort made to get some quantity of Barley abroad, for shipment this Autumn, but we believe it will fail to any extent, owing to the absence of stocks of old Barley of good quality, and to the probability of the Winter closing the Continental Ports till the Spring, before any quantity of the new crop can be collected. In the Spring, we doubt not, large quantities might be procured, if the closing of the malting season did not give reason to apprehend a fall in the averages, and consequent rise in the duties. From the late Continental quotations, Barley would stand 24s to 30s per qr in the Thames, in bond.

The crops of Oats or Barley were much later ready for the sickle this year than Wheat, and consequently, came in for the wet season, which the Wheat, in a great measure, escaped. OATS are a rather deficient crop in quantity, in England, and a great portion harvested in poor condition, and much weathered. In the South of Ireland, and along the East Coast of that Country, Oats have been harvested in good order, and are a great crop, both in yield and in breadth of land sown; but on the north-west side of Ireland and on their mountain lands, where the cultivation of them is extensive, also in Scotland and in the late districts of England, a great part of the crop was stated, only a few days back, to be still in the fields, and a great deal green and uncut: many calculate that under these circumstances a considerable portion of the crop in these parts can never mature and ripen, and that much will be lost. No doubt Oats will bear much bad weather, and we do not feel ourselves competent to decide whether, with fine weather, the growth in these parts may not be yet secured, though of inferior quality. We were led to believe there was a prospect of a good crop of Oats in Scotland, had the

weather proved propitious. Oats have set in very high in price: it would be prudent in the trade, before going into stock at such rates, to consider whether this is not to be attributed rather to a temporary scarcity, arising from short stocks of old, than to any decided deficiency in the new crop: our opinion is that present prices for new Oats cannot be sustained through the Winter and Spring, whatever want of the article may exhibit itself next Summer and Autumn. Neither consumers nor traders will hold stock up to prices which would admit of foreign importations in the Spring and Summer. Good foreign feed in Bond may be laid in at 15s to 16s per qr, and Brew at about 20s per qr in the Thames.

PEAS are a great crop and got dry and handsome, but owing to the scarcity of grinding Barley, old Oats and fodder of all descriptions, they are likely to maintain a high price all the season. NEW BEANS have of course, as our latest crop, been harvested in soft bad condition, and though they vary in places, are considered upon the whole a very deficient crop. Old Beans are getting scarce and dear. HAY and TURNIPS are stated to be very deficient throughout the country, and in the event of a severe Winter, it is calculated, this will materially influence the consumption and prices of Spring corn. Linseed cakes are already at 13l per 1000.

The quantity of corn under lock, by the last return, was—

Wheat.....	594,160 qrs.
Barley.....	34,953 —
Oats.....	244,044 —
Rye.....	4,861 —
Peas.....	2,108 —
Beans.....	61,218 —
Flour.....	103,996 cwts.

of which were in London—

Wheat.....	239,181 qrs.
Barley.....	8,405 —
Oats.....	74,372 —
Rye.....	— —
Peas.....	53 —
Beans.....	7,908 —
Flour.....	36,729 cwts

There have been frequent inquiries for Wheat under lock, for export, for some months past, but at very poor prices, say 22s to 26s for soft Russian; hard and good German red, 28s to 34s; fine Danzig is higher, and the demand has never been very brisk or decided, and we conceive the bulk exported has been on the proprietors' own account. The only vent that could have afforded holders any satisfactory results would have been the home market at a moderate duty. The present Corn Bill has answered the purpose for which it was intended—the protection of the landed and agricultural interest of this country; but it has proved a delusive Bill to the trade, and has been a perfect quicksand to the capital embarked under it: such has been its character hitherto, and such we expect it will continue.

The growth of other articles, as oats, barley, beans, and peas, seems more uncertain than wheat, or the produce less than our consumption of these articles, as we have frequently of late years required importations of them. To judge by experience, the average and duty on oats is set too high to afford the importer a fair chance, even when the country requires a supply of this article.

With regard to the money market, and its bearing on corn trade, we do not expect the present alarm and caution of our great monied interests will occasion any depression or inconvenience to the trade, as their engagements generally were never lighter. We expect the great advance in most articles this time twelve months was rather a reaction on very low prices than the effect of any unseasonable change in our currency.

GILES, SON, & CO.

GENERAL AGRICULTURAL REPORT FOR OCTOBER.

We feel great pleasure in observing that every description of agricultural turbulence—whether practicable, impracticable, political, or theoretical—has dissolved, this month, into a halcyon calm, by the assemblage of associations of landlords and tenants, and other laudable gratifications and enjoyments, after the good old English fashion; uniting for the purpose of awarding premiums and commendations, to all branches, from the most humble to the most noble and exalted members of the agricultural community. This is far more instructive, and greatly preferable, as the last session clearly proved, to an appeal to the legislature.

As relates to practical farming, notwithstanding the frequent turbulence and humidity of the atmosphere, it has proceeded with comparatively little interruption, and is, in every respect, well in its place. We rejoice, too, at having been, in the course of the month, informed, from several highly respectable sources, that, a considerable number of landlords, who are, at this time, letting large farms, have, at several of their present year's Michaelmas audits—in addition to making a voluntary abatement on their last half year's rent—agreed to receive their rent, according to the present pretty general system, viz., their first half year's rent, not till a year is due; and signified it to be their intention, to reduce their farms to the average standard of 1787, except those which have been, in great part, reclaimed from bog or common wastes.

As relates to the present month's complexion of the whole range of low vegetation, it surpasses our own recollection, or that of the oldest farmers with whom we have been acquainted, to have ever witnessed. "Now enters October," says the following extract from an agricultural calendar of the year 1765, "which many times gives us earnest of what we are to expect in the winter succeeding," adding the following brief poetic distich:—

"The sun declines, and now no comfort yields  
Unto the fading offspring of the fields.  
The tree is scarce adorned with one wan leaf,  
And Ceres dwells no longer at the sheaf."

"If it prove windy as it usually doth, it finishes the fall of the leaf;" but we do not recollect an October so near the end of which—though it has been, throughout the greater part of it, visited by a dense, and not unfrequently humid and turbulent, atmosphere, followed by some white frosty nights, whilst gossamer has been hanging on the fruit trees and hedges, and thistle-down flying about during nearly, or quite, the whole of it—with vegetation in so fresh a state. The pastures and crop grass lands, sheep downs, &c., are tinged with a deeper and, we think, richer verdure, than at any period of the past summer, whilst the foliage of both fruit and forest trees, though in most situations, beginning to assume its autumnal complexion, has yet fallen but to a comparatively limited extent. The fattening sheep and beasts, too, continue to do well in their pastures; the ewe flocks, on the sheep downs, and other live farm stock is described as being, generally, in a healthy state. Yet we are somewhat surprised to witness so great a proportion of the beasts which have appeared in Smithfield, both in this month and last, of very indifferent quality: whilst the sheep have been unusually good.

The hop and latter hay harvests have nearly, or

quite, reached their conclusion, under auspicious circumstances: and there will be a good crop of potatoes, the greater part of which have been already secured, for winter consumption, though some of the market gardeners find fault with their part of it.

There appears to be considerable breadths of barley, oats, and beans still unharvested in the north of Scotland, as also, to some extent, in the most northern parts of England, and the north-westerly parts of Ireland. We have ourselves frequently seen in the neighbourhood of Aberdeen patches both of barley, oats, and beans lying about the fields in the middle of November.

As relates to the prices of farm produce generally those of corn and pulse have been somewhat vibrating, but not far from stationary; of malt, seeds, hops, and flour, with both fat and lean graziers' stock and horses a little drooping; of wool, dairy produce, and poultry a little on the advance; of game somewhat on the decline.

The following is a retrospect of the supplies and prices of fat stock sold in Smithfield and Islington cattle markets on the days of the respective dates:—

SUPPLIES.

		SMITHFIELD.			
		Beasts.	Sheep.	Calves.	Pigs.
Sep. 26.	..	3865	28460	400	350
— 30.	..	430	4430	200	350
Oct. 3.	..	3100	20500	200	330
— 7.	..	395	6340	210	335
— 10.	..	3350	19790	190	395
— 14.	..	520	5920	192	495
— 17.	..	3390	24500	240	310
— 21.	..	474	4820	220	335
— 24.	..	3150	23500	230	380
Total ..		18674	138280	2082	3280
Supply of preceding month.		14574	136100	2292	2085

ISLINGTON.

		Beasts.	Sheep.	Calves.	Pigs.
Sep. 26.	..	138	2519	1	—
— 30.	..	48	613	2	—
Oct. 3.	..	159	2116	5	—
— 7.	..	76	692	4	—
— 10.	..	132	2089	—	—
— 14.	..	47	466	—	—
— 17.	..	93	2067	—	—
— 21.	..	60	597	—	—
— 24.	..	138	1971	—	—
Total .....		891	13130	12	—
Supply of preceding month.		1381	12841	29	—

It appears, by the foregoing statements, that the bullock supplies of Smithfield have increased in the course of the month, to the number of 4,100, the sheep 2,180, and the pigs 1,195, whilst calves have decreased in do., 210.

At Islington, there has been, in the course of the same period, a decrease of its bullock supplies to the number of 490, of calves 17, and an increase of sheep, 289, whilst there have been no pigs throughout the month.

About 14,430 of the above beasts is not far from equal numbers of short-horns, Herefords, and Welsh runts, with about 600 Scots and Norfolk home-breds, and about 400 Irish beasts have come from Lincolnshire, Leicestershire, Northampton-

shire, and others of our northern and north-western grazing districts; the numbers having been up the St. Alban's road, about 9,900; the other northern roads, about 4,530; about 2,220, chiefly runts, Devons, and Herefords, with a few Irish beasts, from our western and midland districts; about 920, mostly Herefords, Devons, Welsh runts, and Irish beasts, with some, but not many, Staffordshire cows, steers, heifers, &c., from Norfolk, Suffolk, Essex, and Cambridgeshire; about 150 horned and polled Scots, but chiefly the latter, by sea, from Scotland; about 220, for the most part, Devons, with a few Sussex steers, cows, and heifers from Kent, Surrey, and Sussex, but few of them from the latter county; and most of the remainder, embracing a few of all the before mentioned breeds, and about 250 lusty and lean town-end cows, and about 300 poor Irish store beasts, and as many store Devons, and a few store Staffords, from the marshmen, cattle lodgers, cow keepers, &c., near to, and within a few miles of, London.

	PRICES.		Sept. 26.		Oct. 24.	
	s.	d.	s.	d.	s.	d.
Inferior Beef	2	0 to 2	4	..	2	0 to 2
Middling, do.	2	6 to 3	0	..	2	8 to 3
Prime, do.	3	2 to 4	0	..	3	4 to 4
Inferior Mutton	2	4 to 2	6	..	2	4 to 2
Middling, do.	2	8 to 3	0	..	2	8 to 3
Prime, ditto	3	6 to 4	4	..	3	6 to 4
Veal	3	8 to 4	8	..	3	10 to 4
Pork	3	6 to 4	6	..	3	2 to 4

It will be seen, by the preceding abstract, that, this month, beef, veal, and pork have produced somewhat advanced prices; whilst those of mutton have been stationary.

Here follows our yearly comparison of the supplies and prices of fat stock exhibited and sold in Smithfield Cattle Market, on Monday, October, 26, 1835, and Monday, October 24, 1836:—

At per 8lbs, sinking the offals.

	Oct. 26, 1835.		Oct. 24, 1836.	
	s. d.	s. d.	s. d.	s. d.
Coarse and inferior beasts	2	0 to 2	2	.. 2 0 to 2 4
Second quality do.	2	6 to 2	8	.. 2 8 to 3 2
Prime large oxen	3	4 to 3	6	.. 3 4 to 3 8
Prime Scots, &c.	3	8 to 4	0	.. 3 10 to 4 2
Coarse and inferior sheep	2	4 to 2	6	.. 2 4 to 2 6
Second quality do.	2	8 to 3	0	.. 2 8 to 3 0
Prime coarse-wooled sheep	3	4 to 3	6	.. 3 4 to 3 10
Prime South Downs do.	3	8 to 4	0	.. 3 4 to 4 4
Large coarse calves	3	0 to 4	0	.. 3 10 to 4 4
Prime small do.	4	4 to 4	8	.. 4 4 to 4 10
Large hogs	3	0 to 3	10	.. 3 2 to 3 8
Neat small porkers	4	0 to 4	4	.. 4 4 to 4 8

SUPPLIES.

Oct. 26, 1835. Oct. 24, 1836.

Beasts	3,480	3,150
Sheep	31,850	23,500
Calves	380	230
Pigs	450	380

It appears, by the above comparison, that all kinds of meat were somewhat dearer, on Monday, October 24, 1836, than on Monday October 26, 1835; whilst the supply of the former market day embraced 330 beasts, 8,350 sheep, 150 calves, and 170 pigs less, than that of the latter.

This month's Smithfield supplies of sheep, as last month, comprised about equal numbers of old and new Leicesters, Kents, Kentish half-breeds, old Lincolns, and South Downs, with a somewhat, but not very considerably, decreased number of Norfolk sheep, horned Dorsets and Somersets, white-faced polled Gloucester sheep, horned and polled English-fed Scotch and Welch Sheep, &c.

The number of sheep, by sea, from Scotland, has not exceeded 100.

Fully three-fourths of the beasts, exhibited at Islington market, have been short-horns; the remainder, in about equal numbers of Devons and Irish beasts, with a few Scots and Herefords; the sheep supplies, at the above market have principally consisted of old Lincolns and old and new Leicesters; with a few South Downs, Kents, Kentish half-breeds, white faced Gloucesters, and horned Somersets.

Grass lambs have been, nearly, or quite, the whole of the month, considered to have become mutton, consequently out of season.

There has been but little slaughtered meat, in the course of the month from Scotland; but, from different parts of England, supplies of it have been rather large.

The opinion of the Bishop of Exeter, relative to the new Tithes Act, expressed at the recent Exeter visitation—the particulars of which were fully stated, in the Mark Lane Express of the 17th—is said to be severely animadverted upon, by the landed interests, especially by the payers of impropriated tithes.

EXPERIMENTS, &c., IN THE USE OF CRUSHED BONES AS MANURE.—In the experiments hitherto made, light dry soils are most benefited by bone manure, such as dry sands, lime-stone, chalk, light loams, and peat. It is true that some experiments have shewn an excellent result from their application to even wet heavy soils, but this happened chiefly in the dry seasons of 1826 and 7:—those who theoretically recommend crushed bones for such soils, because they will render them more friable, forget the small quantity in which they are employed. A farmer, however, near Nantwich, relates that on a clay loam, scarcely twelve inches deep, on a sub-soil of grey sand, mixed with clay, he finds that bone manure causes a good herbage of white clover and trefoil to grow where only some grass grew before. From the result of the enquiries of the Doncaster Agricultural Association, it appeared to be the opinion of those who had employed crushed bones—that they are superior to the best stable manure.

In respect to the quality of the Corn, as to 5  
 ..... quantity ..... 5 to 4  
 ..... durability of effect ..... 3 to 2

They have been long used for turnips, to a very great extent, on the light sands of the wolds in Lincolnshire, the farmers of that great agricultural county have no doubt of their value. General directions, and some remarks on the mode and effect of applying bone manure, in our next.

FERTILITY OF THE LAND IN THE MOUNTAINS OF GLAMORGANSHIRE.—A few years ago, a large piece of ground on the side of a bleak mountain, whose unpromising declivity exactly faces the north, was reclaimed and cultivated by J. B. Bruce, Esq. It may be observed that the sun does not shine at all upon it for three months in the year; nevertheless, it produced last year a beautiful crop of wheat, and this year, such an extraordinary quantity of fine oats, that the most experienced among the reapers declared they never saw such abundance before. It will scarcely be credited, but it is no less true, that upon one straw which grew upon it 280 oat grains were produced! How pleasant it is to observe industrious perseverance so amply rewarded. It may be added, that on this piece of land, a labourer, whilst engaged in removing an old wall, once found about 300 pieces of silver coin, supposed to have been hid in the time of Cromwell's usurpation, from whence the field had not been unaptly denominated "Maes-yr-Arian," or the Silver Field.—*Glamorgan Guardian.*

## AGRICULTURAL INTELLIGENCE, FAIRS, &c.

**SHERBORNE PACK FAIR** was very fully attended, and produced the greatest number of sheep known for many years, there being little short of 14,000 penned, which, in consequence of the extreme shortness of keep, experienced a very dull sale, and nearly one half returned unsold. Prices were as follow:—Down lambs, from 14s to 24s per head; horned lambs, from 12s to 16s per head; store wethers, from 22s to 32s; ewes, from 24s to 34s; mutton, 5d to 6d per lb. Fleshy wethers were the only sheep inquired after; very poor ones being a complete drug. The bullock fair was rather short, and very little good beef was produced; prices ranged from 6s to 9s per score. Poor oxen were not numerous, but the supply was greater than the demand, and none but those in very high condition could find customers, but such were in request. Very few of any other description could be converted into money. The horse fair produced a great number of inferior horses, which it was impossible to sell. There was a considerable number of colts of the cart kind, from one to two-years-old, and although offered at greatly reduced prices very few changed hands; in fact, from the extreme scarcity of winter keep, everybody seems disposed to reduce their establishments, and the fair may be considered as among the dullest known for many years. Wool was also a very dull sale, and to effect a demand, lower prices must be submitted to.

**COLCHESTER FAIR.**—There was a large and excellent supply of beasts, and from the fineness of the day they appeared to the best advantage, which was not lost sight of by the sellers, who asked very high prices, which in some instances for the first qualities were complied with; but towards the latter part of the day the buyers became a little more particular, the sellers gave way, and considerable sales were effected at prices quite equal to those of last year. The supply of sheep was ample, and the trade was full as brisk as was expected, and a very considerable number changed hands at rather higher prices. The business in the horse fair was tolerably brisk considering the quality; there were no really good horses exhibited. There were a few cart colts tolerably good, but generally the quality was inferior.

**AT ST. IVES (CAMBRIDGE) FAIR** the stock market was more largely supplied than for years; it were upwards of 2,020 fat and lean, long and short-horned, beasts, and about 3,000 store sheep, with a good supply of pigs. The cheese fair was full, and all sorts went off at high prices—two-meal, 5s to 6s; new milk, 7s to 8s; and double Cottenham, at 10s per stone. Onions, at 1s 9d to 3s per bushel. A large supply of two-year-old colts and other horses, nearly all of which sold at good prices.

**AT DEVIZES GREEN FAIR** the number of sheep penned far exceeded that at any former fair. Sales very dull, at a reduction in price, on some descriptions, of from 1s to 3s per head.

**MANFIELD FAIR** was well attended, particularly in the afternoon, the weather being fine. The quantity of cheese pitched for sale was much less than recollected in former years, and before night was all sold off—blend milk fetched from 51s to 60s; new milk, 65s to 68s; a few good dairies, 69s to 72s. Good onions averaged 1s 3d per peck. The show of cattle was good, and dealers inclined to sell on lower terms, in consequence of the scarcity of grass, and the expected high price of fodder the ensuing winter. Useful hack horses for immediate work, sold well. Half grown pigs for feeding, sold on better terms than at some of the late neighbouring fairs.

**BLYTHER FAIR.**—There was a very indifferent show of horses, and few were sold. The supply of fat beasts was only small, and fetched fair prices. Of lean cattle there was also an indifferent show, and few purchases were effected. The supply of sheep was very extensive, and obtained a fair market price.

**HULL FAIR.**—The show of foals at this fair was

large; good ones very scarce, and fetched high prices. A hunting foal, the property of Mr. Windas, of Beverley, was sold at 28l; a coaching foal, the property of Mr. F. Monkman, of the neighbourhood of Hull, was sold for 26l; the next that were any way superior, were sold from 20l to 25l each. Inferior bad to dispose of.

**WARWICK CATTLE FAIR** was abundantly supplied with sheep and cows, the beef, which was not of the first-rate quality, did not realize more than from 5½d to 6d, and mutton fetched from 5d to 6d according to quality, lamb sold from ½d to 1d per lb more.

**BEDFORD MICHAELMAS FAIR** was plentifully supplied with all sorts of cattle and sheep, which fetched good prices.

**WEYHILL FAIR.**—Monday last Weyhill Fair commenced. About nine purchasing generally began, and the sales went on briskly. "Good things" obtained good prices, and, as is usually the case, inferior things met with prices accordingly. The number of Sheep penned was nearly, if not quite equal to those on the hill last year—say from 115 to 120,000. This large flock generally looked healthy and in good condition, but the wetness of the morning rendered their appearance anything but comely; this alone is in favour of the purchaser. The prices may be quoted as under:—Down Ewes, from 20s to 30s; some choice lots, 32s. Down Lambs, from 18s to 24s; some choice lots, 30s. Two-tooth Wethers, from 20s to 28s; Four tooth, from 28s to 40s. Dorset Ewes, from 30s to 35s. Somerset Ewes, from 35s to 40s. Nearly the whole were sold by the evening.—In the Horse Fair, owing to the disease which has of late so much prevailed amongst coach horses, the demand for harness-horses is very great. Cart-horses, and particularly two-year-old cart colts, are purchased freely for the London brewer and coal-merchant, Welsh colts, forest ponies, and indeed all kinds of useful hacks. from 10l to 25l in price, are in great numbers.

**IDLE CATTLE FAIR.**—The show of Horned Cattle was pretty good. Fresh Milch Cows were in demand and fetched high prices. The show of Horses was only moderate, and consisted principally of draft and backs of a second quality; good hacks were inquired after, and prices in general run high.

**EARLSTOUN FAIR.**—There was a full market of cattle for turnips and the straw-yard, but few fat cattle. Good beasts of every description met with a ready sale, at prices nearly similar to the midsummer market, and rather lower than Jedburgh fair. A great many cattle of inferior description remained unsold. Fat from 5s to 5s 9d per stone. In the horse market a considerable number of horses were shown, though of an inferior description, which were selling at various prices.

**BAKEWELL FAIR.**—The supply of cattle was small. Beef varied from 5s 9d to 6s per stone, and Mutton fetched 5s per stone. A few carts of good cheese sold at 63s, but the average was from 57s to 60s.

**GROSMONT FAIR** was plentifully supplied with stock of every description; among which were some particularly fine Herefordshire steers, and fat sheep, which met with purchasers at prices satisfactory to the sellers. Pigs also were in request, and sold at good prices; but stores, both of cattle and sheep, were driven home unsold from the same cause which has created a dullness at other fairs, namely, the general scarcity of keep.

**SHEEPWASH FAIR** was well supplied with cattle; the bullocks were of the fine North Devon breed, in high order, and a great part of them met ready sale; cows and calves were much in request. There were many hundred sheep penned, and the greatest part sold and fetched good prices; ewes and those fit for the butcher, met the quickest sale. Horses were but few and very little business done. The day was very fine, and the pleasure fair was well attended.

**GLOUCESTER MONTHLY MARKET.**—There

was a large supply both of Beef and Mutton; the prime Beef scarcely realized 6d per lb, and old inferior animals, 4½d to 5d; prime wether Sheep sold at 6d, inferior and Ewes, at 5d to 5½ per lb. The trade was altogether flat, and great numbers were driven home unsold.

The Fair at Mitchell was the largest ever remembered at that place. The show of farm stock of every description was exceedingly abundant, purchasers were in plenty, and much business was done. Between 3 and 4,000 sheep were offered, and averaged 5½d per lb. Beef averaged 45s per cwt.

**SALE OF THE SHOW STOCK.**—The sale of portions of the stock exhibited on Friday took place next day at the Depot. Prime cattle, whose chief recommendation was their readiness for the butcher, brought good prices, but the lean and breeding stock did not obtain generally the prices anticipated, and much left the ground unsold. Two very heavy four-year-old oxen of the Fife breed, raised by Lord Loughborough, brought 90l; Mr. Maule's pair of the original Scotch breed, also four-year-olds, brought 48l 10s: two six year-olds, West Highlanders, bred by Mr. Donald Stewart, Glenlyon, sold one for 38l, and the other 29l; a three-year-old heifer, a cross of the Ayrshire, reared by Messrs. Ritchie of the Rhyn, brought 30l. There was none of the Horses sold; and of the Bulls offered, we could learn of only one, a three-year-old, which fetched 25l. For the Swine there was much brisker demand; one two-year-old, fattened at Lynedoch, brought 8l 5s; three from Scone sold respectively at 4l 11s, 4l 6s, and 4l 5s, the first was the prize sow, nine months old, and weighed when slaughtered, sinking offal, 26 stone imperial.—*Perth Courier.*

**EXTENSIVE SALE OF STOCK.**—Pursuant to advertisement, published in the two last numbers of this paper, an extensive sale of cattle and sheep took place on Wednesday last, at Cassington, in the parish of Kirk-michael. The stock belonged to those spirited farmers and dealers, Messrs. Duncan and Cowan, and its condition was highly creditable to them, comprising as it did, a proportion of the thorough-bred Teeswater stock of the late Earl of Cassilis, which was well-known, not only to our local farmers and dealers, but to others resident in distant parts of the kingdom. In the hands of Duncan and Cowan, the stock had suffered no deterioration, but, on the contrary, appeared to have been improved by their skilful management, and the consequence was, that the biddings went on with a degree of spirit rarely witnessed, and seldom if ever exceeded in Scotland. The attendance of farmers and dealers was numerous and respectable, embracing many of the best judges of bestial in our county. The fleshers purchased freely and largely of the fat stock, which was reckoned very fine, and which, it is probable, will adorn their respective stands before Yull. The farmers picked up the approved breeding stock with avidity, and high prices were given for many of the lots; we subjoin a note or two of them. Mr. McClymont, Balsaggart, gave 3l 7s for a Leicester tup hog; Mr. Wright, Woodlands, Girvan, paid 4l 4s, and Mr. Girdwood, Greenfield, gave about 3l for animals of the same breed, and the Leicester ewe hogs averaged 2l 2s each; a two-year-old pure Teeswater quey was bought by Mr. Wright, Woodlands, at 9l 16s; Mr. Arbuckle, Ayr, paid 4l 4s for an Ayrshire calf; and a small Highland cow was bought by Mr. J. Rodger, Ayr, at 9l 14s; but the most extraordinary price was that paid for a black Galloway calf then on the cow—this fine animal fetched the long price of 5l 6s, was bought by Mr. Guthrie, flesher, Irvine, and the mother of the calf brought 5l 10s, being only 4s more than her offspring. We know not whether the breeding-purchasers were stimulated to give these prices in consequence of the emulation created by the Ayrshire Agricultural Association, but certainly they may be taken as indications of an earnest desire to improve the stock of the county. The total sales amounted to within a perfect trille of one thousand pounds sterling, and so extensive was the stock on hand, that night approached before a large portion of it could be put up; and the sale of the re-

mainder, consisting of breeding mares and foals, cart and coaching horses, colts and fillies, &c. was adjourned.—*Ayr Observer.*

A very important sale of stock took place at Mr. Denton's, of Haraby, adjoining Carlisle, on Thursday, Oct. 13. The excellence of the stock has long been so noted, that strangers came from a considerable distance to make purchases. Mr. Wetherell, the auctioneer, acquitted himself in a manner which gained for him the approbation of every one present. The principal purchaser was a gentleman from Ireland, deputed by the Earl of Courtoun. We select a few of the principal purchases:—

**BULLS.**

Priam—five years old, by Shorthorns, dam by Hellem, by Norman Willy; 125 guineas.

Tom—red, four months old, by Priam; 15 gs.

Jerry—red, two months old, by Priam, 10 gs.

Logic—fleck'd, eight months old, by Pretender; 9 gs.

Hero—red, one year old, by a son of Carleton; 6 gs.

**COWS.**

Dione—red, four years old, by Monarch; 69 gs.

Netherby—roan, four years old, by Monarch; 55 gs.

Io—roan, four years old, by Sir Thomas; 43 gs.

Bianca—roan, four years old, by Bloxham; 43 gs.

Clio—roan, four years old, by Sir Thomas; 36 gs.

Duchess—roan, three years old, by Mr. Crofton's Catterick; 31 gs.

Sarah—roan, six years old, by Forect; 28 gs.

Laura—roan, four years old, by Young Rockingham; 25 gs.

\* \* \* Duchess was bulled by Maximus; and all the others were bulled by Priam.

**TWO-YEAR-OLD HEIFERS.**

Cora—roan, by Carlton, bulled by Priam; 70 gs.

Emma—roan, bulled by Priam; 35 gs.

**ONE-YEAR-OLD HEIFER.**

Daisy—red and white, by Gainford; 35 gs

**HEIFER CALVES.**

Ceres—red, by Priam; 19 gs.

Sabina—roan, by Pretender; 13 gs.

**THE URY SALE.**—For ten years past, there has been at Ury an annual sale of pure short-horn bull calves. Until last year, prices ranged for each from 16l to 20l; that year, some were sold at 45l, and all at a high price, leaving many competitors unprovided and disappointed. Notwithstanding of the lamentable state of the crops, and the continued rains, the Captain's sale at Ury, on the 14th instant, went off in a manner which must have been most satisfactory to himself, as it was the subject of astonishment to the lookers-on. The bull calves for sale were limited to ten. One was knocked out at 43l, another at 67l, a third at 70l, and the remainder at prices varying from 20l to 40l. The average price of the whole was 37l 10s per head; and, such was the demand, that, in addition to those advertised, the owner was induced to part with four, only a few weeks old, and not intended for sale.

**SHEEP SALE AT PENGILLYEY'S ALPHINGTON.**—On Wednesday last a considerable assemblage of gentlemen connected with Agriculture, and desirous of improving their breeds of sheep, took place at the residence of Mr. Samuel Drew, Pengillye's, Alphington, Mr. Thomas Hussey offering for sale 100 store ewes from Mr. Drew's prime flock. These consisted of 60 two-teeth, and 40 full-mouthed ewes. They were put up in lots of five each, and the competition was lively; indeed it was an excellent and quick sale, the whole being disposed of at an average of 6d per lb.—*Exeter Flying Post.*

A correspondent of the *Hercford Journal* says he has successfully employed the following mixture for the last sixteen years to provide against smutty wheat:—"Two ounces of blue vitriol to a gallon of water, or a pound to eight gallons, and so on according to the quantity of wheat to be sown, and the size of the tub or vessel it is steeped in. The vitriol should be dissolved in a few gallons of hot water, and what more is wanted to make up the quantity may be added cold. The wheat to be steeped in a kipe, and limed in the usual way the night before sowing."

**FALKIRK OCTOBER TRYST.**—The last of the three trysts for the year, commenced with sheep, on Monday the 10th inst. The number on the ground was estimated, by competent judges, to be not less than 70,000, a much greater number than has been brought forward for many years. The day was most unfavourable, and rained incessantly.—The market was evidently over-stocked. Mr. Paterson, from Sutherlandshire, sold his three-year-old white-faced wethers and ewes, 1,000 in each lot; the wethers brought 27s, the ewes 19s. These were considered to be the best sheep in the market, and were purchased by a dealer from Dumfries. The best lot of black-faced wethers brought 24s. Current prices for Cheviot wethers, 21s to 25s; current prices for black-faced wethers, 14s to 21s. Cheviot ewes, top price, 19s; current, 15s to 18s. Black-faced ewes, top price, 14s 6d; current, 7s to 12s. In the evening a very considerable number remained unsold, and on the Tuesday the greater part of these were disposed of, but at prices a shade lower.—The result of the sheep market, compared to the last September tryst, was a fall of 2s to 3s a-head, but compared to the corresponding October tryst of last year, 1s a-head higher on the average. Yesterday the 11th inst., the cattle market commenced. The number on the ground was at least 35,000, and considered to be a very full market. The weather fortunately cleared up, and the day continued fine. The market presented a much more animated appearance betwixt buyers and sellers, than in the sheep market on Monday. Fat cattle were scarce, consequently in demand, and sold readily. Good half-fat heavy cattle, four years' old, brought 14s as the top price; a lot of forty good beasts, 12/ 15s. Three-year-olds, in good in condition, 8/ to 11.—Two-year-old Highland stots, as usual, in good demand, and selling from 7/ to 10/; inferior sorts, 4/ to 6/. The result of the cattle market was, upon the whole, favorable. All the best cattle were sold, and realized much about the same prices as at last September tryst, and fully equal to the October tryst of last year. Of inferior beasts on lean stock of all descriptions, the holders had to submit to extreme low prices, and next to unsaleable, from the apparent scarcity and dearth of winter keep. A great show of horses, sales dull, and prices low.

**WEST SUFFOLK AGRICULTURAL ASSOCIATION.**—The fourth annual Autumnal show of the above association was held on Friday se'night. The show was not so large as last year. The company was of the first respectability, but not quite so numerous as we have seen at preceding exhibitions. The show of sheep and cart mares was very superior. Some Devons belonging to the Duke of Norfolk, which obtained the prize, attracted much notice. The Southdown tups of Mr. Lugar, of Hengrave, which gained the prizes, were particularly admired for their symmetry and quality of wool. Two extraordinary merino sheep, belonging to Lord Western, were exhibited as extra stock. They were not shorn till they were three years old, when 27lbs of wool was clipped from each sheep. The locks of wool were 14 inches long. Three Merino ram lambs belonging to the same noble lord, were also exhibited. A remarkably handsome Durham bull, the property of the Rev. Daniel Gwilt, of Icklingham, excited the admiration of all present. There was an excellent variety of other stock, which we have not space to particularize. A fact respecting a cart mare belonging to Col. Rushbrooke, M.P., which was shown for the prize, is deserving of particular notice. The mare had a lock-jaw, of which she was completely cured by pouring cold water from a water-pot along her back, as recommended by an eminent veterinary surgeon. The general impression, we believe, is, that horses with locked jaws are mostly incurable. This simple remedy is deserving of trial.

**ROXWELL PLOUGHING MATCH.**—This match took place on Wednesday se'night, in a clover ley, near Screens, belonging to T. W. Bramston, Esq., M.P., in the occupation of Mr. Thomas Everard, called Rainbow Field. The weather proving auspicious induced the attendance of Mr. and Mrs. Bramston and their friends, including Mr. and Mrs. Selwin, John F. For-

tescue, Esq. — Tower, jun. Esq., the Hon. and Rev. Bond Grosvenor, Rev. J. F. G. Fortescue, and many other of the neighbouring clergy, gentry, and practical farmers, who expressed their approval of the arrangements of the day. The scene presenting 16 ploughmen with their horses and ploughs in one field, all actively contending for the prizes, was truly gratifying to all who consider that upon the success of agriculture all other interests in a great measure depend. The land was in excellent condition, and the ploughing, which was good, exceeded many matches which have recently taken place. That of Lines, the winner of the first prize, was considered to be very superior; as was also that of James Little, the winner of the second prize. Mr. James Lucking and Mr. George Darby were chosen Judges, and the esteemed member for South Essex (who was actively engaged throughout the day), with his usual kind expression of feeling delivered each of the prizes as awarded, accompanied with an appropriate address and comment upon the result of these trials of skill. The active exertions of Messrs. J. Joslin and Flowerday tended greatly to promote the regularity and gratification of the day. We trust that this match may prove an example to the neighbouring parishes.

### HOP INTELLIGENCE.

**BORO', Oct. 24.**—During last week we experienced less inquiry for Hops; prices have given way a trifle; ordinary sorts may be considered from 4s to 6s per cwt lower; fine in demand at full prices. The estimated duty still remains at 175m.

#### PRESENT PRICES.

	Per Cwt.		£ s.	£ s.
Farnhams, fine .....	9	9	11	0
East Kent, Pockets, fine ..	6	6	8	15
Bags .....	6	0	7	7
Mid Kent Pockets .....	5	5	8	8
Bags .....	5	0	7	7
Superfine higher.				
Weald of Kent Pockets .....	5	0	6	2
Sussex, Pockets .....	4	15	5	18
Yealings .....	4	10	5	12
Old .....	3	3	4	10
Old oils .....	1	1	3	3

**WEYHILL HOP FAIR.**—(From our own Correspondent.)—On Monday and Tuesday Weyhill presented a most interesting appearance from the number of very fine teams collected in the Farnham and country roads, as well as from the liberal freight of hops in process of removal to the respective booths of the planters. The quantity of hops pitched in the country row may be stated at about 5,250 pockets, in the Farnham row at about 3,100. The quality is universally allowed never to have been equalled. The opening price of Farnham's ranged from 10/ to 11/, of country's from 8/ to 9/. A few fine growths were purchased the first day at nearly those rates, and one lot of fine country's realized 9/, which may be quoted as the highest price obtained. The second day ruled very dull, and growers gave way in price from 10s. to 11. per cwt., and even at such reductions very little business was transacted. The following day opened better, and a large quantity of hops changed hands at from 7/ 7s. to 8/ 8s. From 2,000 to 3,000 pockets were taken by London houses, which gave a firm tone to the market, and made the west country dealers commence in real earnest to supply themselves with an article so excellent in quality, and so moderate in price, as compared with the value which should obtain from an estimated duty of 170,000/. We were certainly surprised at the difference of judgment between some of the planters, and we must give great credit to Mr. James Messenger for his very superior tact as a salesman in having realized 9/ for Sir Thomas Millar's growth, while Mr. Cobden, of Binsted, tamely submitted to so low a price as 7/ for a hop fully equal in quality. The hops which had been manured by Lance's Animalized Carbon were observed to be superior in quality to those which had been cultivated in the usual way.



## REVIEW OF THE CORN TRADE

DURING THE MONTH OF OCTOBER.

The weather during the past month has been marked by those vicissitudes which characterise the climate of the British Isles. In the early part of October rain and cold prevailed, preventing the farmers from making any progress in securing the remainder of the crops in the more Southern divisions of the kingdom, and in the Northern not only seriously impeding agricultural operations, but preventing the unripe grain from arriving at maturity; in the middle of the month the rain partially abated, and the temperature became more genial, the farmers exerted the utmost endeavours, during the intervals of fine weather, to cart their grain, and consequently the condition is much affected, and requires kiln-drying or drying cold winds, to render it marketable; and where oats have been standing uncut, the dampness of the atmosphere has checked any rapid progress towards maturity. As regards the crop of wheat in those counties from whence the metropolis more particularly draws its supply, it may be stated, that though there has been a diminution in the amount of land sown with wheat, yet the decrease is not to the extent generally calculated upon, and less than in other counties. The straw is decidedly short in bulk, but the sheaves in thrashing have yielded a larger return than was anticipated, which is attributed to the fact, that at that critical period of the season, the blossoming of the plant, the weather which prevailed being warm and genial, with the intensity of the sun's rays partially clouded, caused the juices supplied to each grain, to set full and healthy, and hence few seasons have been experienced in which there was less deficiency of corn in the ears. The produce, though much below the yield of the years 1834 and 1835, may, in these districts, be ranked at a moderate common average crop, the weight being nearly equal to that of last season, and in some instances the quality superior, though much more infected with smut. The condition varies according to locality and mode of harvesting, many parcels having been prematurely hurried from the field, are unfit for millers' purposes, and will be scarcely marketable until the Spring; and though a considerable breadth was secured before the wet, yet the condition on the aggregate is much inferior to the crop of 1835. The markets up to the present time have been scantily supplied with the finer qualities of new wheat, as farmers, owing to the precarious state of the weather in the later portions of the kingdom, particularly in Scotland and Ireland, and having obtained remunerating prices for all other kinds of agricultural produce, have little necessity, and therefore no inclination to bring forward their better samples at the present uncertain range of prices; more especially as the currencies in Mark-Lane have been latterly depressed, and a pressure generally existing on the trade, which has been in great measure produced by the proceedings of the Bank Directors raising the amount of interest on discount, and paralyzing for the moment all money operations. Parties interested in grain have, in consequence, become extremely cautious in their purchases and speculations, preferring rather to await

the result of the money market. The supplies, therefore, have been dependent on a consumption confined to its narrowest limits, millers only buying to the extent of their immediate wants, and the market unrelieved by purchases from any other channel, has been languid. The bonded trade has been also similarly influenced; but, as money becomes more readily attainable, and which is now beginning to be the case, and investments are made in the finer descriptions of corn, old qualities, as well as selected dry new samples, are likely to feel the impulse, and the range of the currencies, between the two extreme points, will be wider extended than at present; but at the same time, as far as the foreign importer is concerned, these circumstances do not hold out much encouragement to his speculations for the home consumption, as the average value of wheat is not likely to be much affected by the improvement in price of the superior qualities; the advance being checked by the low rates of the smutty and inferior descriptions.

Barley is estimated at an average in quantity, but one-third of the crop of the kingdom has suffered more or less from the wet, bad weather. Our principal barley counties were so fortunate as to secure the greater part of the crop in good condition prior to the wet weather setting in, but even in those counties we must allow a considerable deduction for waste, from the wet weather overtaking their later harvest. Of old barley there is evidently but a small quantity on hand to meet the new crop, and taking into account the immense consumption of the article, and the great deductions of malting qualities from the crop, in consequence of the unfavourable weather the last two months, it is to be expected that our extreme prices for fine malting barley are likely to be at present maintained.

Oats are a rather deficient crop in quantity in England, and a great portion harvested in poor condition, but much weathered. In the South of Ireland, and along the East Coast of that country, oats have been harvested in good order, and are a great crop, both in yield and in breadth of land sown; but on the North West side of Ireland, and on the mountain lands, where the cultivation of the grain is extensive, also in Scotland, and in the late districts of England, a great part of the crop was stated, only a few days back, to be still in the fields, and a great deal green and uncut. Indeed the reports from Scotland and Ireland continue very unfavourable from the more northern portions of each kingdom. Oats in many parts of the Highlands are still green, and as frost and even snow has been already experienced, all hope of the crop arriving at full maturity seems past; and when it is recollected that a failure in this article affects the inhabitants of these mountainous districts in the same way as a failure in the wheat crops would England,—the privations of the poorer classes in their "Bannocks and Brose" must be lamentably extensive.

During the past month many causes have operated to enhance the value of wheat throughout the kingdom, and though the currencies have advanced less

rapidly than they would have done, had it not been for the pressure on the money market, which has effectually checked any extensive speculations on investment in corn. Prices have however risen about 4s to 5s at all the leading markets in England, Scotland, and Ireland; in Mark Lane white wheat must be noted 7s per qr. higher, and red 5s; but the improvement has been experienced to this amount only on the fine fresh descriptions of old wheat and prime dry new qualities; ordinary sorts not having advanced more than 2s, and in the quotations of inferior and smutty parcels, little alteration has taken place. The farmers have been firm in requiring higher rates, and having kept the markets shortly supplied, they have been enabled to realize their demands; as the remunerating rates they have obtained for Summer grain, have not rendered them anxious to dispose of their wheats unless at enhanced currencies. The London and home country markets are likely also to be affected by the fact of the receipt of orders from Scotland, thus early in the season, principally for fine dry new qualities, corroborating beyond doubt, the inferior character of the Scotch crop. In Ireland, the condition of the new wheats has rendered holders unwilling to quit their stocks unless at advanced rates.

Owing to the advanced prices of wheat and flour in the United States, bonded wheat has remained firm, and the finer qualities of red have improved in value; but as the shipments during October have been principally on owners' account, there has not been much actual business transacting on the market. The exports have comprised about 7,000 qrs to Baltimore, 3,300 qrs to New York, 500 qrs to Boston, and a few hundred to Philadelphia; 1,300 qrs to Sydney, and a few hundred to Launceston, Halifax, and Madeira.

The progressive improvement in wheat has enabled the town millers to realize the top quotations for their flour, and had it not been for the large supply of flour received coastways towards the close of the month, they would in all probability, have succeeded in advancing the prices to 50s. Ship flour, owing to short supplies, and the bakers having only a limited stock has advanced 2s to 3s per sack since the end of September. Flour in Bond, has met a brisk demand for export, principally to the West Indies, where the increased value of the article is exhibiting the influence, which the diminutions in the receipts from the United States, is already effecting; prices are 2s to 3s per barrel higher, Hamburg and Danzig qualities being worth 25s to 27s, and supplies on arrival meet ready purchasers; at Jamaica it will be seen by the advices, the quotations are ranging very high; about 17,000 to 18,000 cwt. have been shipped to Mauritius and West Indies, exclusive of 2,300 cwt. to Pernambuco, and a few hundred cwt. to New South Wales, Halifax, &c.

The alteration in the duties consist of an advance of 1s per qr on wheat, making the duty 39s 8d, but a deduction of 3s on barley, 1s 6d on rye, 1s 6d on beans, and 2s 9d on peas, the duty on oats remaining unaltered.

The supplies of barley at the beginning of the past month having come sparingly to hand, and great disparity existing in the quality, some samples being much discoloured, others indicating symptoms of being mow-burnt and some out of condition, rendered the demand active on the part of maltsters for the finer descriptions of Chevalier and Norfolk and Suffolk samples, which obtained in many instances an advance of 1s to 2s per qr, being noted at 44s to 45s for extra parcels; the arrival of vessels having however been detained by boisterous and adverse

winds, which coming to hand towards the close of the month, the accumulated supply checked any farther advance, and reduced the general currencies to 43s, though selected fine Chevalier from the ale-brewers would still have brought rather more money. The distillers being out of stock have been obliged to submit to an advance of 1s per qr, paying 37s for good stout parcels, and in some cases even 38s; grinding has participated in the improvement, and good qualities are worth 35s, and even 36s, but purchasers at these rates are confining their operations, and the aspect of the trade is much less animated. Few of the numerous orders transmitted abroad are being executed from want of quality and condition in the new crops in Mecklenburg and Denmark; the Saale and Magdeburg samples which arrive at Hamburg are likely to obtain therefore high rates, as they are mostly of kindly quality, and much has been secured before the wet weather set in; the quantity which can reach England before the winter sets in, will be very limited, and spring shipments will barely arrive before the termination of the malting season; Saale and Bohemian barley is being shipped at Hamburg at 25s to 25s 6d per qr free on board, and Silesian at Stettin at 23s to 24s.

The unfavourable accounts of the oat crop from Scotland and Ireland, and north of England, and complaints being also made from Lincolnshire as to quality and condition, the supplies at the same time proving limited with a high range of currency in Scotland and Ireland, have caused the prices in the London market to continue to advance, and are noted 1s 6d to 2s per qr. higher than on the close of last month, and dealers and consumers having been bare of stock, they have been compelled to accede to the enhanced terms of the factors. As however, there are large supplies on their passage from the Sister Isle, which have been detained by contrary winds, the quotations are not likely further to advance: feed oats generally are noted at 25s to 27s; fine, 29s to 29s 6d; extra, 30s to 33s. There are few oats offering free on board from Ireland by the shippers, as the rates are too high to induce purchasers to come forward, the latest quotations were Limerick for shipment in October, November, and December 12s 9d to 13s per barrel; do. in January, February, and March 15s to 13s 6d; Derry and Ballina 13s. Black Youghal, Cork or Waterford 13s to 13s 6d; Galway, 12s to 12s 6d. Oats in Bond have been in demand at 15s to 16s, fine, 17s per qr, and Brew at 20s to 22s for shipment to the West Indies, to which destination a few thousand quarters have been shipped.

The demand has been brisk for old beans, and dry new samples, and the article being extremely scarce must be noted 2s to 4s per qr. dearer, and firm at the improvement; new beans came to hand extremely soft, and out of condition, and are dull at former rates.

White boiling peas have continued in short supply, and meeting a steady demand, must be quoted 2s to 3s dearer; grey and maple are also worth 2s per qr. more money.

During the month of October the following quantities of Grain and Flour have arrived in the Port of London.

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats. qrs.
English .....	30,447	26,591	22,337	11,142
Scotch .....	38	583	—	4,037
Irish .....	5	764	...	31,136
Total in Oct.	30,490	27,938	22,337	46,315
Total in Sept.	42,217	4,691	26,770	71,066
Total in Aug.	35,168	9,157	17,498	59,104
Foreign in Oct.	3,920	280	...	2,084

	Beans. qrs.	Peas. qrs.	Linseed. qrs.	Flour. sacks.
English .....	7,648	6,267	..	33,133
Scotch .....	..	..	..	600
Irish .....	..	..	..	20
<b>Total in Oct.</b>	<b>7,648</b>	<b>6,267</b>	<b>....</b>	<b>33,755</b>
<b>Total in Sept.</b>	<b>3,724</b>	<b>4,332</b>	<b>17</b>	<b>32,170</b>
<b>Total in Aug. .</b>	<b>2,612</b>	<b>2,294</b>	<b>...</b>	<b>27,473</b>
Foreign in Oct.	335	36	5,876	brls. 5,438

In Canada prices of wheat and flour are on the advance, owing to the high range both articles are maintaining in the United States, and the large purchases made in Upper Canada by the American millers. Flour has advanced to 42s 6d per barrel, the last quotations received having been only 32s 6d for fine qualities. Wheat has been selling at from 6s 3d for Hamburg red, up to 7s per 60lbs. for Upper Canada qualities, and several contracts had been made on delivery at 6s 6d, 7s per 60lbs being now the current rates. The reports from the agricultural districts have continued favourable both in Upper and Lower Canada; and in the latter division of the colony the injury sustained by the wheat from fly and maggot is much less than had been anticipated. From Halifax and New Brunswick the weather is represented as favourable for agricultural operations, and the crops promise an average return.

At Sydney, New South Wales, the markets were being better supplied, and wheat was dull at 10s to 11s 6d per bushel. Flour was declining, and firsts were noted at 28s per 100lbs. At Launceston, Van Diemen's Land, owing to the reported decline at Sydney, Wheat had fallen to 7s 6d and 8s per bushel, but had again rallied, and was worth 9s 6d to 10s 6d per bushel.

The prices of flour in the West Indies are ranging at high rates from the falling off in the receipts from America. At Jamaica on the 23rd August good German flour had obtained 83s 4d currency per barrel, and some fine American qualities in small parcels realized as much as 133s 4d. Indian corn meal 54s 2d per barrel. No biscuits in importers' hands, and Indian corn very scarce. The supplies of flour during the present year, ending the 22d August, were 16,526 barrels and 702 half-ditto less than the corresponding period of 1835.

The continuance of wet unfavourable weather in France has given rise to apprehensions for the sowing of wheat, especially on the stiff clayey lands, and holders of old wheat and fine new qualities evince little disposition to sell unless at higher prices, more particularly as the crops have proved so deficient in the central and southern departments. Flour meets ready sale for all descriptions at fully the improved currencies. At Paris the arrivals of wheat are very limited, and the southern and northern districts from whence supplies have usually reached the metropolis are having their surplus corn taken off in a different direction, leaving little more than enough for the actual consumption. Rye is also scarce, and held at 19s to 20s; the plant is reported unfavourably, and the demand which is experienced from Holland, Belgium, and the Baltic, for America, is adding its influence on the prices in France. Oats at Paris are steady, but not dearer, and the demand at different points is attributed more to the inferior quality of the article in Normandy this season, than failure in quantity. At Nantes a demand was being again experienced for shipment to Bordeaux and the southern ports. At Bordeaux a fair extent of business had been transacted in wheat, for immediate as well as future delivery, at from 45s to 49s, and the trade

firmer than the previous week for all the finer qualities. At Marseille, however, the market was dull both for Home and foreign growth of wheat; Loire quality was worth 48s to 50s; Barletta free 56s to 57s. At Rouen flour was advancing in price, and shipments continuing to the southern ports. At Dunkirk a gradual improvement was being experienced in wheat; white was worth 41s 6d to 45s 9d, and red 42s 6d to 43s 8d per qr.

At Odessa the new wheats had appeared at market, fine qualities were eagerly sought after, and being rather scarce obtained from 18s to 22s 9d, according to sample.

At St. Petersburg some sales of rye had been effected for America at 18s 6d, and there were several purchases for spring delivery of the article at 15s 11d. Kubanka wheat was noted at 32s 6d to 33s 5d.

At Riga rye had been contracted for at 18s 2d, deliverable in May. A small parcel of new linseed had appeared at market, and the quality proved very satisfactory, but the quantity was too small to fix any price, and generally the offers for delivery from the interior were limited too high to admit of present purchases.

At Konigsberg some sensation was created on 'Change by the accounts received from the Prussian minister in the United States, and published by government, intimating, that owing to the total failure of the crops in America, our trans-atlantic brethren would require a million and a quarter qrs. of grain, which had caused an extra degree of firmness in the trade; high mixed wheat of 1834 was noted at 34s to 36s; 1835, 27s 3d to 28s 5d. New linseed was noted at 45s 3d, 48s to 50s 10d per qr.

At Danzig the demand from the last accounts had lessened and prices given way, and purchases were made at 1s to 1s 6d per qr under the currencies of the previous week. Flour, on the contrary, was much inquired after, and there was much difficulty in making contracts for Spring delivery. Wheat was quoted 32s to 37s; high mixed, 29s to 31s; mixed 27s to 29s; red, and ordinary, 25s to 26s. But a small proportion of the stocks in granary are reported as belonging to corn merchants, the main portion being held by British speculators. The freight to America 16s per qr, and 5 per cent.

At Stettin the weather has been rainy, cold, and ungenial, and in fact throughout the lower districts of the Baltic, the same reports are made. Barley was scarce and held at improved rates at the above port, owing to the damage the new grain has sustained, and shipments could not be made under 20s 6d to 21s. Holders of oats for the same reasons were not inclined to sell. Wheat could be shipped at 25s to 28s.

At Rostock there is no old barley in store, and the demand must therefore be entirely met by the new crop, which will be of various qualities, in consequence of exposure to the wet. Wheat in demand at 28s, and freight to America 9s, and 5 per cent. In Holstein the rain was much impeding the harvest, and as there was a good deal of barley outstanding, the quality was likely to be deteriorated. Fine old and new wheat mixed, of 62 lbs to 63 l, was offering for shipment to America at 30s to 31s.

At Hamburg old red Marks wheat was worth 32s 6d to 33s; new 29s to 29s 6d; new Anhalt and Magdeburg 31s to 32s. Flour was in animated request for America and English account, as well as wheat, so that prices were not expected to recede until the supplies of new increased. New Saxe and Bohemian barley bright in colour had obtained 25s 6d for England, and Holstein and Mecklenburg

17s 6d to 18s; and in the Danish Islands old have obtained 17s 9d. Peas in request at 22s. Beans are outstanding and suffering from the wet. Clover seed very firm.

At New York considerable fluctuations had taken place in the prices both of wheat and flour, during the previous twelve days; Western canal flour, which had reached as high as 9 dollars 75 cents, or 43s 10d fancy brands, and 42s 9d common marks, had receded as low as 39s 4d, but again rallied and remained at 40s 6d to 42s 9d. Wheat had experienced a decline of as much as 11s per qr owing to rather an influx of arrivals, but had, at the date of the last letters, nearly regained its value; Genesee had brought 73s 4d; inferior North Carolina, 56s 6d, still prices were nearly 7s lower than the previous fortnight, which may in part be attributed to inferiority of quality, as at Philadelphia it appears millers had determined not to accede to the demands of holders for the common runs of wheat, as they had been paying much too disproportionate rates, considering the quality offering, and though prime samples have sustained little alteration, yet the ordinary descriptions have been brought nearer their relative value. Flour remained at 42s 9d, with limited demand. At Baltimore the trade was heavy; flour had not given way in price, being noted at 42s 9d, but wheat had materially declined, good new red wheat having been sold at 66s, which was considered the general currency for that description; very inferior, 47s 8d; best white fine wheat for family flour had brought 76s 8d. Reports appear in some of the morning papers, that America will require 1,200,000 qrs of wheat to make up her deficiencies; this is a vague calculation and unsubstantiated by facts; the United States have enough for their own consumption, and a little for export, but millers and merchants having been accustomed to export to the annual amount of nearly 2,000,000 barrels of flour, have been wont from year to year to enter into large contracts for future delivery, not however, to the full amount of the total exports of all the States, and they therefore now require the raw material to fulfil their speculative sales, which, however, may be set down at a considerable less gross amount than a million quarters.

**CURRENCY PER IMPERIAL MEASURE.**

	BRITISH.		Oct. 1.		Nov. 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk.....	42	50	42	50	44	57
White.....	46	57	48	62		
Norfolk, Lincolnshire and Yorkshire... 40	50	40	52			
White, do. do.....	40	54	46	56		
West Country Red.....	28	48	40	52		
White, ditto.....	40	54	47	56		
Barley, Malting, new.....	36	40	38	40		
Chevalier, new.....	38	43	38	43		
Distilling.....	32	36	34	37		
Grinding.....	28	34	32	35		
Irish.....	26	30	28	32		
Malt, Brown.....	48	58	47	55		
Ditto, Chevalier.....	64	70	64	67		
Ditto, Norfolk and Suffolk Pale.....	56	68	54	65		
Ditto Ware.....	64	70	61	64		
Peas, Hog and Grey.....	34	38	37	40		
Maple.....	34	36	38	41		
White Boilers.....	36	42	38	45		
Beans, small.....	40	44	41	48		
Harrow.....	38	42	41	46		
Ticks.....	34	40	38	42		
Mazagan.....	34	38	36	40		
Oats, English feed.....	25	6d 25	26	6d 29	6d	
Short small.....	28	50	29	31		
Poland.....	25	29	30	32		
Scotch, Common.....	26	6d 28	29	30		
Berwick, &c.....	26	30	28	31		
Potatoe, &c.....	28	31	32	33		
Irish, Feed.....	22s 0d to 24s 0d		24s 0d to 27s 6d			
Ditto Potatoe.....	24s 0d to 27s 0d		27s 0d to 29s 6d			
Ditto Black.....	22s 0d to 24s 0d		26s 0d to 27s 6d			

**PRICES OF FLOUR,**

Per Sack of 280 lbs.	Oct. 1.		Nov. 1.	
	s.	s.	s.	s.
Town-made.....	40	48	42	48
Norfolk, Suffolk, Kent, and Essex.....	34	36	36	39
Sussex and Hampshire.....	33	34	35	36
Superfine.....	35	—	37	—
Lincolnshire, Yorkshire, and Stockton.....	32	34	34	37
Northumberland, Berwick, and Scotch.....	32	33	33	36
Irish.....	33	36	35	39
Extra.....	37	—	46	—

**WOOL MARKETS.**

**BRITISH.**

OCTOBER 24.

There has been scarcely any business doing for some time; but, as money is becoming more plentiful, and the stocks of the manufacturers getting low, it is generally expected that a better demand for Wool is not far distant.

Per lb.	OCTOBER 1.		NOVEMBER 1.	
	s. d.	s. d.	s. d.	s. d.
Down Tegs.....	1 9	1 10	1 9	1 10
Half-bred do.....	1 9	1 10	1 9	1 10
Ewes and Wethers.....	1 6	1 6	1 5	1 6
Leicester Hogs.....	1 5	1 6	1 5	1 6
Do. Wethers.....	1 2	1 3	1 2	1 3
Blanket Wool.....	0 9	1 3	0 7	1 3
Flannel.....	1 3	1 8	1 3	1 8
Skin Combing.....	1 5	1 7	1 5	1 7

**LIVERPOOL.**

WEEK ENDING OCTOBER 24.

SCOTCH WOOL.—We cannot yet quote any improvement in the inquiry for Scotch wools. The state of the money market has the present effect of completely suspending all operations. As far as we can ascertain holders are not anxious to press their stocks on the market at present.

	per stone of 24 lbs.	
	12s	13s
Laid Highland Wool, from 12s 6d to 21s 6d		
White do.....	16s 0d	17s 0d
Laid Crossed do.....	16s 0d	17s 0d
Washed do.....	17s 0d	18s 0d
Laid Cheviot do.....	19s 0d	21s 0d
Washed do.....	26s 0d	28s 0d
White do.....	32s 0d	36s 0d
Import for the week.....	268 bags.	
Previously this year.....	17551 do.	

The transactions in our wool market this week have been on a very contracted scale, and the market remains in the same inactive state as reported in our last. There have been no transactions in Cheviot or cross wool, and very little demand for English or Irish. The prices may be quoted generally as a shade lower, but in several sorts it would be difficult to effect sales even at a reduction of 1d. In foreign wools, East India only has improved in demand, but in these also the prices have suffered a slight decline.

ENGLISH WOOL.—Down ewes and wethers, 19d to 20d; Down tegs, 20d to 23d; combing fleeces, 19d to 20d; combing skin, 18d to 20d; super. skin, 19d to 20d; head skin, 17d to 19d.

IRISH WOOL.—Irish fleeces, mixed lots, 17d to 18d; Irish wethers, 16½d to 17d; Irish hogs, 18½d to 19½d; Irish combing skin, 16d to 17d; Irish short skin 14½d to 16½d per lb. Imports this week, 58 bags; ditto this year, 5,117 bags.

FOREIGN WOOL.—Russian wool, 8½d to 9½d; Odessa, fine, 2s to 3s 6d; Buenos Ayres, 4d to 5½d; Mogadore and Barbary, 4½d to 6d; washed Peruvian, 14d to 16d; unwashed ditto, 11d to 12d; Portugal R., 1s 5d to 1s 7d; ditto, low marks, 1s 0½d to 1s 2½d; German fleeces, 2s 2d to 2s 6d; ditto assorted, 2s 6d to 2s 9d; ditto lambs, 2s 6d to 3s 6d; Spanish R., 2s 6d to 2s 9d; ditto F S, 2s 2d to 2s 4d; New South Wales, 2s 4d to 3s. Imports this week, 2,275 bags; ditto this year, 28,994 bags.

**SCOTCH.**

Per Stone of 24 lbs.	OCTOBER 1.		NOVEMBER 1.	
	s. d.	s. d.	s. d.	s. d.
Laid Highland Wool, from 12 6 to 13 6			12 6	13 6
White Do. Do.....	16 0	16 0	16 0	17 0
Laid Crossed Do.....	17 0	18 0	16 0	17 0
Washed Do. Do.....	18 0	19 0	17 0	18 0
Laid Cheviots.....	20 0	22 0	19 0	21 0
Washed Do.....	26 0	28 0	26 0	28 0
White Do.....	32 0	36 0	32 0	36 0

FOREIGN.

Oct. 24.

About 3,540 bales of Spanish, Russian, East Indian, Turkish, and German wools reached London, in the course of last week. A public sale of 224 bales of Tigai wool, is appointed, for the 4th of Nov. Private contract trade is in a sluggish state, at stationary prices.

Electoral Saxony wool, from 4s 6d to 5s 6d; first Austrian, Bohemian, and other German wools, 2s 10d to 3s 9d; second do., 1s 10d to 2s 9d; inferior do. in locks and pieces, 1s 6d to 1s 10d; do. lamb's do., 2s 6d to 3s; Hungarian sheep's do., 2s 2d to 2s 8d; Leonesa sheep's do., 2s to 3s 6d; Segovia do., 2s 6d to 3s; Soria do., 2s to 3s; Cacares do., 2s 4d to 3s; Spanish lamb's wool, 1s 6d to 2s 8d; German and Spanish cross do., 1s 10d to 3s 2d; Portugal sheep's do., 1s 6d to 2s 6d; do. lamb's do., 1s 4d to 2s 4d; Australian, fine crossed do., 2s 4d to 3s 4d; do. native sheep's do., 1s 8d to 2s 8d; Van Diemen's Land native sheep's do., 1s 6d to 2s 8d; Cape of Good Hope do., 1s 6d to 3s.

WOOL,

On which the Home Consumption Duties have been paid at London, Liverpool, Bristol, and Hull during the last week. —

WOOL.	This Year, previous to last week.	Same time in the last Year.
Sheep, Spanish, .....	lb. 1751549	1260482
Bristol .....	lb. 115012	113329
Australian .....	lb. 6527064	576816
Other Sorts .....	lb. 17698444	9798167
<i>Total</i> .....	lb. 18932885	10763030

THE BONE MARKET.

LONDON, Oct. 22.

The demand from the Crushers for Rough Bones continues still brisk, the supply on hand very scarce; 5s per chaldron, free on board, was paid for the last cargo. In Hull, Bones have risen still further, and parcels are eagerly bought up from 98s to 100s per ton.

In the principal ports on the continent, Bones continue to be very scarce, with a brisk demand from this country and Scotland. The prices last paid was equal to 90s per ton, free on board.

The additional export duty levied by the Austrian Government is quite prohibitory, and it is expected that in Prussia the exportation will be prohibited altogether very soon.

BONES.

Since our last there have passed the SOUND or ELSINORE, the GREAT BELT, and the HOLSTEIN CANAL, ships loaded with Bones, bound for Hull, 2; Fisherow, 1; other parts of England, 1.

TURF INTELLIGENCE.

Since we had last an opportunity of addressing our readers on this subject, the Second October Newmarket Meeting has taken place, as well as many provincial races; two of the latter are entitled to particular notice; namely, York and Holywell; the former on account of its dissatisfactory proceedings, a characteristic which, we are sorry to observe, too often distinguishes the meetings at this once celebrated Racing Establishment; the latter in regard to its high respectability, its growing importance, and the consideration in which it is held as forming the conclusion of the provincial racing season.

Last year it became our painful, but imperious, duty, to notice, in terms of unqualified reprehension, the *Budget affair* at York; at the last August Meeting at this place, The Cauld Lad unquestionably lost his race, owing to the foul jockeyship of the person who rode The Bard: on the present occasion (the York October Meeting) the race for the "Ladies' Plate," is not calculated to elevate the racing character of old Ebor in general estimation, or prevent it from sinking into that state of insignificance and contempt to which it appears hastening as fast as possible.

Having remarked that the Holywell Hunt Meeting is considered the close of the provincial racing season, it becomes necessary further to state, that some few racing events are appointed for decision at a later period, but they are of minor importance; and therefore

as Chester Meeting is regarded as the commencement of the racing campaign, Holywell Hunt Races are generally understood to form its conclusion or finish.

In one of our previous numbers we observed, that Mr. Mostyn's stud, though not remarkably extensive, was inferior to none in the kingdom in regard to the quality of the individuals of which it is composed; and the Holywell Races show that it still maintains its superior character or pre-eminent distinction. Birdlime, who defeated there doubtless General Chasse at the Liverpool Summer Meeting, and won the Trade Cup, has particularly distinguished himself on the present occasion; and a similar observation will apply to Trapball. It will be in the recollection of our readers that Queen of Trumps did not make her appearance, according to expectation for the Doncaster Cup in September last: she had been tried a short time previously, and found to be amiss: to such perfection has racing arrived in this country, that its event may be said to be weighed like gold in a balance, and therefore the most trifling deficiency incapacitates a racer from successful competition or rivalry; Mr. Mostyn consequently acted wisely in not subjecting the Cambrian Queen to the risk of tarnishing her well earned laurels by bringing her to the starting post, when she was not exactly all right. Indeed, when we found our favourite did not come out for the Doncaster Cup, we

were fearful her splendidly triumphant racing career had been cut short, aware that her fore legs were scarcely to be depended on. However, we were much pleased to find that she appeared at the meeting under consideration, and carried off the Post Sweepstakes in her usual style.

The Holywell Hunt Meeting comprises a considerable number of events, a more than usual number of which, on the present occasion, have been uncontestedly decided. But, when we take into consideration the late period of the season, and that therefore a considerable number of racers must have been put *hors du combat*, by previous exertions, such a circumstance can excite no surprise, though, at the moment, it may produce regret.

The Newmarket Second October Meeting requires no elucidation in this place. At the same time it may be remarked that, though the list of the odds for the ensuing Derby presents a formidable appearance, no great extent of business has yet been transacted on that important stake.

The running at Nottingham was of a superior description; but, unfortunately, the decision of the judge for the King's Hundred was called in question. Mundig won the first heat by half a length; the second was also given in his favour, though an eye-witness thus describes the heat systematically:—"In the second heat, Mundig led at starting, being closely followed by Goldbeater and Sylvan. Sylvan soon passed Goldbeater, and the race was between the former and Mundig; soon after they had passed the distance post, Sylvan crept past Mundig, and maintained her place by an entire head: (for we stood in a direct line with the two sight posts of the judges, and at a very short distance;) but the judge decided in favour of Mundig, to the no small astonishment of those who considered themselves competent to give an opinion of the result. We know several debts to have been actually paid on the heat, ere the parties were aware of the judge's decision, which were afterwards repaid!" As every convenience is afforded the judge for the part he has to perform, if he pronounce an incorrect decision, he does so knowingly and wilfully. The judge should take his seat with clear hands, which is impossible if he be in the habit of betting: such a circumstance gives to his orbs of vision a sinister sort of Strabism, or a degree of obliquity which is sure to lean or incline towards the interested side of his betting book. Is the Nottingham judge a betting man? Our columns will be found as open to his defence as they have been to his accusation. His conduct, as a public functionary, is a legitimate subject of animadversion through the medium of the press.

STATE OF THE ODDS.

THE DERBY.

- 9 to 1 agst Jereed
- 9 — 1 — Brother to Bay Middleton
- 12 — 1 — Defender
- 14 — 1 — Colt by Sultan, out of Dervis's dam
- 15 — 1 — Colt by Peter Lely, out of Phantasima
- 20 — 1 — Flare-up
- 25 — 1 — Mango
- 25 — 1 — The Pocket Hercules
- 30 — 1 — Clifton
- 30 — 1 — Colt by Velocipede, out of Silver-tail
- 40 — 1 — Lord Stafford
- 40 — 1 — Wintonian
- 50 — 1 — Norgrove.

THE OAKS.

- 12 to 1 agst Armezia
- 5 to 4 on her agst Egeria
- 2 to 1 on her agst Chapeau d'Espagne.

LORD CHESTERFIELD'S STUD.

A draft from this extensive stud was sold last month at Tattersall's, as follows:—

Bay yearling colt, by Sir Benjamin, out of Miss Lydia	cs. 61
Bay yearling filly, by Sir Benjamin, out of Eliza Lud	37
B c by Voltaire, out of Schedule, 3 yrs	130
Ginnums, 3 yrs	52
B c, 2 yrs, by Young Phantom, out of Babel	25
B c, 2 yrs, by Shakspeare, out of Pheasant	16½
B yearling colt, by Humphrey Clinker, dam by Walton	33
Ch c by Priam, out of Alexis' dam, 2 yrs	40
Ch f by Dunsinane, 2 yrs	8½
Maid of Melton, a well-bred hunter, covered by Zingane	26
Ambiguity, by Election, out of Selim's dam	33
Malibran, by Rubens' dam, by Trumpeter, covered by Priam	33
Dahlia, by Phantom, covered by Priam	66
Theresa Panza (Weeper's dam), covered by Priam	90
B m by Woful, out of Alegretta, covered by Priam	34
Lady Sarah, by Tramp, out of Miss Wentworth, covered by Mulatto	200
Miss Craven's dam, by Soothsayer, covered by Velocipede	56
Miss Giles, by Lottery, out of Scroggins' dam, 5 yrs, covered by Mulatto	170
Eliza Leeds (the dam of Eva, Erynus, &c.), covered by Priam	135
Energy, Sister to Velocipede, covered by Mulatto	81
B m by Lamplighter, out of Zillah, covered by Priam	50
Gallopede's dam, by Sorcerer, covered by Zingane	71
Ch m by Zingane, out of Octaviana, 3 yrs, covered by Vanish	27
Drab, by Reveller, out of Ambiguity, covered by Zingane	36
Ch g by Emilius, out of Ambiguity, 3 yrs	32
Mare by Partisan, out of Flounce, 3 yrs, covered by Priam	64
Gr f by Phantom, out of Mayflower, 3 yrs	58
B c by Priam, out of Miss Crachani	28
B f by Priam, out of Dahlia, 2 yrs	46
Lustre, by Swiss, dam by Comus	50
Whimsical, by Blacklock, 5 yrs	61
Mrs. Candour (a hack)	35
Conrad (a grey hack)	50
Tom Cringle, 96gs; Justice, a br g, 76gs; Royal George, 34gs (hunters)	206

## VOLUNTARY COMMUTATION OF TITHES.

The first step to be taken with a view to effect a voluntary commutation of Tithes is by giving notice of a parochial meeting for that purpose, which notice must be signed *either* by landowners whose interest is not less than one-fourth part of the whole value of the land subject to tithes" or by "tithe-owners whose interest is not less than one-fourth of the whole value of the tithes."

It should be premised that land-owners or tithe-owners may appoint an agent, with full powers to act and vote for them. The form of the power of attorney for that purpose will be found in the 16th section of the Act. It is "under hand," not under seal. It should be attested by one witness, not the wife of the party. The original should be kept, and "a copy, authenticated by two credible witnesses, appended to every agreement executed by such agent, and sent with it to the office of the commissioners." An owner of land, being also owner of tithes and patron, may be treated and may act and vote in each separate capacity. When a land-owner, tithe-owner, patron, or any person interested, is a minor or labours under any legal disability, he may act by his legal representative; and in default of such the commissioners may name a person to represent him.

The 12th section defines who shall be comprehended under the terms "land-owner" and "tithe-owners," see also note (k) to 12th sect. of the Act, *Farmer's Magazine* for September. The principal difficulty in determining ownership will be in respect to "joint-owners." These suggestions being intended for the use of unprofessional readers, any statement of the law upon the subject of "joint-ownership" would be misplaced. Wherever such cases may arise it will be desirable to obtain professional assistance.

The value of lands or tithes possessed by persons signing the notice, as well as by those who proceed to make a parochial assessment must be ascertained by the "sum at which such lands are rated to the relief of the poor." When all the lands or Tithes are rated, no difficulty will arise but where lands are extra parochial or where there is no rate, then the value "must be estimated according to the rules by which property of the same kind is by law rateable to the relief of the poor," and here there may be some difficulty. At present property is rated in different parishes in different ways; in some cases at the full value—in some at *two-thirds* of the value—in many at *one-half* the value. These different modes of rating occasion much inconvenience, and will speedily be remedied, the Poor Law Commissioners being directed by the 6 and 7 W. 4, c. 96, s. 1, to order one uniform rating throughout the country upon the *net amount of value*, free of all charges &c. Whenever any property is not rated, and it becomes necessary for the purposes of the Tithe Act to settle the amount of rate, it must be borne in mind that such property must be assessed in the same proportion as the property already rated in the same parish or district where the tithes are to be commuted.

That is having ascertained the full amount of rate at rack rent, the value must be estimated upon *two-thirds* or *one-half*, like the land already rated as the

case may be. Land should be assessed upon the rack rent after deducting all rates, charges, and outgoings. Where land is subject to an extraordinary charge for drainage a proportionate deduction should be made on that account. And it has been said that where the land tax is redeemed it should also be deducted.

In respect to the rating of Tithes a sum of money given under an Inclosure Act in lieu of Tithes is rateable, unless specially exempted. An annual rent awarded to the rector in lieu of Tithes is rateable. Vicarial Tithes are liable to poor rate. A person who farms tithes of the parson and agrees with the tenant to receive a sum of money for the whole Tithe is rateable and not the tenant.

Where by a private Act of Parliament "lands, houses, and tenements," were liable to be assessed, the word "*tenements*" was held to include *Tithes*. The interest of the parties having been ascertained in the manner above described, notice according to the form supplied by the Tithe Commissioners (see *Farmer's Magazine* for October, pages 268—9,) properly signed, must be "affixed at least twenty-one days before such meeting on the principal outer door of the church or in some public and conspicuous place within the limits of the parish, and twice at least during such twenty-one days inserted in some newspaper generally circulated within the county in which such parish is situated." This notice is free of advertisement duty.

It will be seen, by the directions of the Tithe Commissioners sent with the forms of notices, and which will be found in pages 268 and 269 of the "*Farmer's Magazine*," that a copy of the notice must be forwarded by post to them on the day upon which it is affixed. Reference should be made to these directions, as they contain other particulars which must be attended to.

The first business of the meeting called as above directed will be to elect a chairman who must be chosen by the majority of the land-owners and tithe-owners there present.

It may properly be noticed here that a Commissioner or Assistant-Commissioner may attend at any meeting, take part in the discussion, and aid by his advice, but not interfere further. A proper book for entering minutes of the proceedings should be procured before the meeting takes place, and correct minutes should be kept.

The first duty of the chairman is to "ascertain the interest of the land-owners and tithe-owners then present in person or by their agents," which must be done in the manner above directed. Upon the amount of interest of the parties present will depend the question, whether the meeting is empowered to make a "parochial agreement" at once, or only to make a "provisional agreement."

If upon examination it shall be found that "there are present owners whose interest is not less than

Two-thirds of the land subject to tithes,  
Two-thirds of the great tithes,  
And two-thirds of the small tithes,"

they may proceed to make and execute a parochial

agreement for the payment of a sum by way of rent-charge in lieu of tithes.

The following form of agreement, with directions, has been issued by the commissioners:—

ARTICLES OF AGREEMENT for the *Commutation of the Tithes of the parish of* \_\_\_\_\_ *in the county of* \_\_\_\_\_ *in pursuance of the Act for the Commutation of Tithes (a) in England and Wales, made and executed at a meeting duly called and holden at* \_\_\_\_\_ *in the said parish on the* \_\_\_\_\_ *day of* \_\_\_\_\_ *in the year of* \_\_\_\_\_ *Lord one thousand eight hundred and thirty* \_\_\_\_\_ *according to the provisions of the said act, by and between the several bodies politic and persons, owners of land, within the said parish, by whom (b) [or by whose agents duly authorized in that behalf] these presents are executed, and the interest of which land-owners in the lands of the said parish is not less than two-thirds of the lands therein subject to tithes, of the one part; and the reverend J. K., clerk, (c) rector of the said parish, and*

(a) The instrument must bear date on the day on which the first signature is attached thereto, (see sect. 21 of the act), and if a parochial meeting has been duly called, although the persons attending it may not have a sufficient interest to execute an agreement binding on all parties interested, the parties actually present may make a provisional agreement, which if duly executed within six months by parties having the required quantum of interest, will be binding, (see the 15th sect. of the act). When the agreement is provisional in the first instance, say, "Provisional Articles of Agreement, &c." and after the date add the words, "and since perfected." When the first signature is attached at an adjourned meeting, after the word "holden," add the words, "and adjourned from time to time, and holden by adjournment."

It is advisable that the instrument should be written on parchment.

(b) The words within brackets [ ] are only to be used when an agent or agents is or are appointed, and executes or execute the agreement: when such is the case, the power or powers of attorney by which such agent or agents is or are appointed, must be appended to the agreement and sent with it to the commissioners, (see sect. 16 of the act). If any land-owner or tithe-owner is labouring under any of the legal disabilities mentioned in the 15th sect. of the act, and any person authorised duly acts for him in this matter, that fact must appear; say in that case after the words, "Owners of land," "Substitutes for owners of lands, according to the provisions of the said act."

(c) Where the case is not of this simple kind, but the interest in the tithes is divided amongst several bodies politic or persons, or is vested in the same person in different characters, or by different titles, bodies politic and persons who have an interest in at least two-thirds of the great tithes, and bodies politic and persons who have an interest in at least two-thirds of the small tithes, must be parties to the agreement of the second part.

For instance, if the great tithes of the parish are impropriated or appropriated, the impropriator or appropriator must be a party, and described according to the nature of his interest. Again, if any person is entitled to a *portion* of tithes within the parish, he must be described as such portionist, if he be made a party of the second part to the agreement; the necessity of his

owner of all the tithes, as well great as small, thereof, of the other part.

IT IS BY THESE PRESENTS WITNESSED, That at the said meeting it hath been and is mutually agreed upon by and between all the said parties to these presents, in manner following: that is to say, That the annual sum of (a) \_\_\_\_\_ pounds \_\_\_\_\_ shillings and \_\_\_\_\_ pence by way of rent-charge (subject to variation, as in the said act provided, and subject to the other provisions therein contained) shall be payable and paid to the said J. K., as rector of the said parish and owner of the tithes thereof, and to his successors, instead of all the tithes, as well great as small, of the lands of the said parish, subject to tithes and all (b) *modus* and compositions real and prescriptive, and customary payments payable in respect of such lands or the produce thereof; in testimony whereof, the said parties to these presents, or their respective agents thereunto duly authorized in their names and on their behalf, have to these presents subscribed and set their respective hands and seals.

being so or not will depend upon the fact, whether the agreement is or not executed by other parties having the quantum of interest in the tithes required by the act.

The same observation applies to all cases in which other bodies politic or persons than the incumbent of the living has any interest in the tithes. Of course, if the incumbent is vicar or perpetual curate, he must be so described, if he signs the agreement as a party of the second part. The interest of each tithe-owner in the tithes of the parish must distinctly appear upon the agreement.

(a) It must be observed, that by the 21st sect. of the act it is enacted, that every agreement must state in words at length the sum agreed to be paid instead of tithes and instead of all *modus* and compositions real, prescriptive and customary payments, if any, and must distinguish if there is more than one tithe-owner, the sum payable to every tithe-owner, and where the tithes of different lands in the same parish are payable to different tithe-owners, or to the same tithe-owner in different rights, the sum payable in respect of such different lands must be distinguished. *The variation of recital necessary in each varying case will, generally speaking, be quite obvious and of course; but in case of any doubt or difficulty, application should be made to the commissioners, who will send the requisite instructions.*

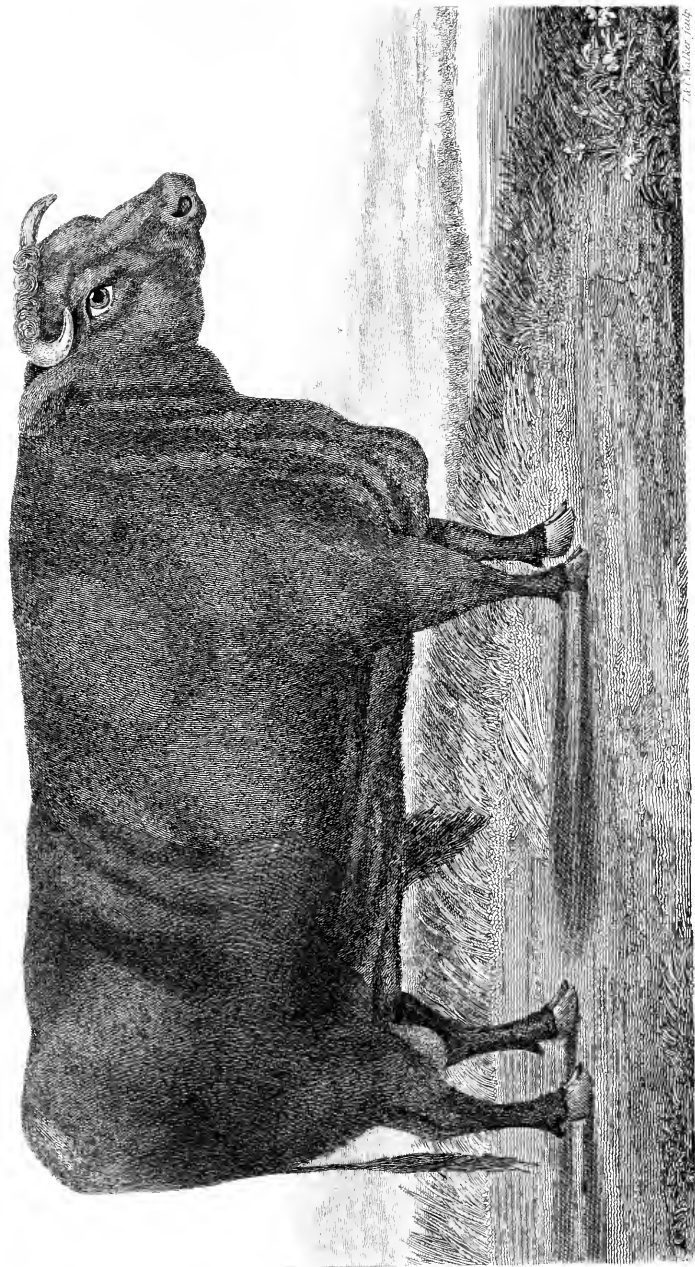
(b) Observe that no parochial agreement will extend to the extinguishment or discharge of any Easter offerings, mortuaries, or surplice fees, or to the tithes of fish or fishing, or to any personal tithes other than the tithes of mills, or any mineral tithes, unless by special provision, (see the 90th sect. of the act.)

If any suit be pending touching the right to any tithes, or there be any question as to the existence of any *modus*, or composition real or prescriptive, or customary payment or any claim or exemption from, or non-liability to tithes, or touching the boundary of any lands, or if any difference shall arise whereby the execution of any agreement shall be hindered, the same may be submitted to reference in the manner prescribed by the 24th section of the act. Land to the extent of 20 acres may be given to the incumbent of any benefice as part of the commutation for tithe (see the 29th and 62d sect. of the act,) and in such cases the special matter must be fully shown, as directed by the act.

(To be continued.)







A FIFE SHIRE BULL,

The property of Colonel Lindsay of Dundee, exhibited at the late meeting of the Highland Society held at Perth Oct 17, 1836

London, Published by, J. Rogers, Dec 7, 1836

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Engr. J. H.

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DECEMBER, 1836.

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[VOL. V.

## THE PLATE.

The subject of the Plate is a Bull of the Fifeshire breed, six years and ten months old, the property of Colonel LINDSAY, of Balcarras, in Scotland; and which obtained a premium of fifteen sovereigns at the late Meeting of the Highland Society at Perth, as the "best bull," there being five others shown in competition. An Honorary Premium was also awarded to Mr. THOMSON, of Orkie, as the breeder of this bull. Much discussion has arisen regarding a resolution of the Society not to give Premiums for the direct propagation of the Fife breed, and an article upon this subject will be found in this Magazine. We also beg to refer our readers to some valuable observations upon this breed of cattle, by Mr. DICKSON, of Edinburgh, which will be found in the Fourth Volume of the Farmer's Magazine, Page 277.

### FIFESHIRE BREED OF CATTLE.

It is generally known that on 30th January, 1835, a Committee of the Highland Society reported as to the Fifeshire breed of black cattle (Highland Society's Transactions, Vol. X. p. 401), "That though very fine animals under this name are often reared by the care and skill of particular breeders, yet that in its general character the breed of Fifeshire is inferior to what the district is capable of producing." Adopting the spirit of this report, the Directors advertised no premiums for breeding stock of the Fifeshire cattle, in the very competition most nearly affecting the county, viz.—that for 1836, lately held at Perth.

In consequence of a representation made to the Directors on behalf of the Fifeshire agricultural interest, supported by a body of important evidence in favour of the breed, this mistaken and unwise exclusion was not enforced. That after the result of the recent exhibition at Perth, the original deliverance of the Society's Committee should have been reiterated, and praise exclusively bestowed upon the gentlemen producing the stock, in terms evidently meant to disparage the breed generally, has astonished a great proportion of those who inspected the stock upon that occasion. However much this eminent national institution have found it wise and expedient specially to encourage the adoption of the short-horned breed in no other case have they ceased to encourage any of the well known native breeds of the several districts in Scotland. The position now resumed by the Society, or rather by the Committee of Directors who attended at Perth, must be held to rest upon the assumption that the Fife breed is decidedly inferior, not to the short-horned breed only, but to all and each of the several breeds still receiving direct encouragement from this National Society.

The assertion that fine specimens of the Fife breed are the rare results of uncommon pains, expense, and a more than careful selection by the producers, is unfortunately in direct variance with the facts of the case. To the breeders of the short-horns this praise is supremely due, no pains, expense, nor

care in selection and improvement of the stock having been spared, and no advantage in grazing and stall-feeding having been withheld. Whatever pains may have been taken by the Fife farmers in rearing and feeding their native breed, they are as yet laggards in this matter, compared with the breeders of the short-horns, insomuch that the true merits of the Fife breed will not be sufficiently tested, until still greater care in the selection of the parents, and a more generous system in grazing and rearing the young stock, be, under the fostering care of the Highland Society, and increasing enterprise of the local agriculturists, more generally bestowed. But further, the statement in the report is opposed to the facts of the case, as seen in the numbers and merit of the stock exhibited at Perth. In 1833, at Stirling, the first prize for the best ox of any breed was awarded to a Fife ox, while, at the recent exhibition at Perth, the Fife breed, so far from affording only one or two solitary specimens, conveying honour to the breeder, rather than to the breed, was, in fact, exhibited in greater numbers and excellence, in proportion to the extent of the district, than either the short-horned or polled breed.

Instead of sixteen, as erroneously reported by the Society, twenty-four animals of the Fife breed were exhibited, viz., six bulls, six cows, one five-year-old, seven four-year old, two three-year-old, and two two-year-old oxen. Of these the cows were so fine, that, in the opinion of many judges of noted skill, no six of the eleven short-horned, nor of the several polled cows shown, could have been selected to match, far less surpass them.

The Fifeshire fat stock, twelve in number, were much admired by many first-rate English breeders, and were declared to be among the finest exhibited. The prize ox of the four-year-old class (had the rules of the society permitted it to be entered for both) would, almost to a certainty, have received the prize awarded to the best ox of any breed. The five-year-old Fife ox was an animal of exquisite symmetry and beauty, and the whole stock of a description calculated to raise in public opinion this valuable breed.

The mutual congratulations of the Fife breeders

upon the high place which the Fife stock maintained at this splendid exhibition, and the assurance that this superior and hardy breed, would henceforth be estimated by the Society according to its merits, were speedily checked by the terms of the authorized report of the exhibition. That, under the circumstances above detailed, the highly honourable and enlightened members of the Committee should have so rigidly adhered to their former dicta, can be attributed solely to the natural leaning, which the most conscientious persons have, to adhere to their preconceived opinions, and to the difficulty of inducing even the judicious to retract a serious and honest, but perhaps prematurely formed opinion. It is probable, however, that after a full examination of the evidence connected with this matter of public interest, the great body of members of this national institution will disavow the opinion there given, and recall this marked and solitary proscription of one of the most valuable of the pure Scotch breeds. Without at present entering further into detail, it may suffice to say, that the following statements can be completely established by ample and concurrent testimony of eminent agriculturists and dealers, both within the county and also beyond its limits.

1. That the Fife breed of black cattle has not yet received the same degree of solicitous attention and liberal outlay in selection, improvement, and management, so laudably bestowed in perfecting the short-horned and polled breeds, so that, under the fostering care of the Highland Society, and the increasing enterprise of the Fife agriculturists, this superior breed may be brought to still greater excellence.

2. That Fife oxen, when placed under equal treatment with the short-horns, reach nearly to an equal weight, while the former yield a higher price per stone (sufficient to compensate the difference, if any, in weight) in consequence of their superior quality, and of their greater fitness for travelling.

3. That the short-horned breed is suitable only to that small proportion of the county, which is eminently a grain and not a breeding district, and in the great proportion of the climate and soil of Fife is not found to thrive; while the first cross between that and the Fife breed alone is found to be of advantage to the feeder.

4. That the Fife black cattle as a dairy breed are found to be superior to the short-horned, or even the polled breed.

5. That even in the opinion of those who may think the above rather an over estimate of the Fife breed, and who may recommend a more general adoption of the short-horned breed within the county, the proscription of this large and native hardy breed, by withdrawing premiums for its breeding stock, is an unprecedented and unwise restriction, and that the view expressed in the report of 1835, and reiterated in the recent report of the exhibition, condemning the breed generally, is not borne out by the facts of the case.—*Correspondent of Fife Herald.*

A *Correspondent* recommends that in the present scarcity of turnips (from 8l to 10l per acre), masters of hounds and sportsmen should, as much as possible, refrain from riding over turnip fields, and use every endeavour to prevent farmers' sons and gentlemen's servants from doing so. The destruction which frost occasions to a bruised turnip is sufficiently known, and it is somewhat singular that farmers joining the hunt appear usually the last persons to pay any attention thereto.

## COUNTY RATES.

EXTRACT from the Report of the Commissioners for inquiry into County Rates and other matters connected therewith, presented to both Houses of Parliament in June, 1836.

TABLE showing the amount of Expenditure of County Rate in the several Counties of England and Wales in the year 1834; also the rate in the pound in that year, supposing the County Rate to have been levied on the annual value of Real Property as assessed to the Property Tax in April, 1815.

Counties.	Total County Rate Expenditure, 1834.		Annual Value of Real Property, April 1815.	Rate in the Pound thereupon.
	£	s. d.	£	d.
Bedford.....	5,090	19 11	343,682	3½
Berks.....	8,435	10 1	652,062	3
Bucks.....	14,020	2 9	644,129	5
Cambridge....	6,841	9 9	655,220	2½
Chester.....	41,082	9 9	1,083,083	9
Cornwall.....	8,024	9 7	916,060	2
Cumberland..	11,161	15 8½	705,445	3½
Derby.....	12,311	5 4	887,659	3½
Devon.....	14,733	14 11½	1,897,515	1½
Dorset.....	8,938	2 5	698,395	3
Durham.....	9,911	1 0	791,359	3
Essex.....	18,847	10 6	1,556,836	2½
Gloucester...	16,103	7 7½	1,463,259	2½
Hants.....	19,618	3 5	1,130,951	4
Hereford.....	5,365	12 0	604,614	2
Hertford.....	5,500	11 6	571,107	2½
Huntingdon..	4,150	9 5	320,187	3
Kent.....	16,692	15 6	1,644,179	2½
Lancaster...	39,169	3 4	3,087,774	3
Leicester.....	15,181	9 11	902,217	4
Lincoln.....	25,941	0 6½	2,061,830	3
Middlesex....	69,373	18 3½	5,595,536	2½
Monmouth....	4,940	17 8	295,097	4
Norfolk.....	15,875	13 2½	1,540,952	2½
Northampton.	6,801	6 3½	942,161	1½
Northumberland.	9,066	12 1	1,240,594	1½
Notts.....	15,232	10 8½	737,229	4½
Oxford.....	8,775	9 9	713,147	2½
Rutland.....	1,288	5 10	133,487	2½
Salop.....	9,880	10 11	1,037,988	2½
Somerset.....	19,129	19 7½	1,900,651	2½
Stafford.....	15,938	17 5½	1,150,284	2½
Suffolk.....	15,878	17 0½	1,127,404	3½
Surrey.....	25,872	3 9	1,579,172	3½
Sussex.....	17,859	9 11	915,348	4½
Westmoreland.	15,336	4 1	1,236,726	2½
Worcester....	3,647	0 10½	298,198	2½
Wilts.....	14,480	6 10	1,115,458	3
Worcester....	9,295	1 6	799,605	2½
York (East R.)	8,210	3 1	1,190,325	1½
— (North R.)	16,297	4 7	1,145,252	3½
— (West R.)	41,670	13 8	2,392,405	4
Total England	651,972	3 1½	49,744,622	3
Anglesea....	1,986	10 9½	92,589	5
Brecon.....	3,880	2 9	146,539	6½
Cardigan....	1,722	17 7½	141,889	2½
Carmarthen..	4,962	9 5	277,455	4½
Carnarvon...	3,891	16 10	125,198	7½
Denbigh.....	5,253	17 11	243,976	5
Flint.....	3,120	14 9	153,930	4½
Glamorgan..	5,621	8 5	334,192	4
Merioneth...	1,659	13 0½	111,436	3½
Montgomery.	5,306	15 10	207,266	6
Pembroke....	2,567	18 7	219,589	2½
Radnor.....	1,801	0 6	99,717	6½
Total Wales	41,775	6 5½	2,153,801	4½
Total of England and Wales	693,747	9 7½	51,898,423	3

## TO THE FARMERS OF ENGLAND.

*A sure Remedy to ensure a Crop of Turnip or Cole Seed against the destructive ravages of the Fly.*

GENTLEMEN,—Having the two last years witnessed the devastation that the turnip fly has caused to the crops thereof, and more especially this year having been an eye-witness of their ravages through an extent of country southward, in a journey of four hundred miles, I think that the following observations I have to make on this subject may tend to draw the attention of agriculturists thereto, which may in future years have a very beneficial effect towards promoting the growth of so useful a plant.

I have now been a farmer upwards of twenty-four years, and have had under a course of cultivation three sorts of turnip land, viz., a sandy soil, a gravelly soil, and a peat or loamy soil, and, to the best of my knowledge, I have never yet failed in my turnips on either of these different soils, though my neighbours around me have frequently so done. I think I may therefore venture to pass my opinion on the grand cause of the failure of so many turnip crops in this country; and I shall not scruple to pass my animadversion on farmers in general, from their deficiency of attention towards the promotion of the growth of so useful a winter plant; for no crop in its nature is more beneficial or necessary for the support of our sheep, on which man so much depends, both for his food and clothing.

Ever since I was a boy (and that is many years back) I have constantly heard of the ravages of the turnip fly, and of the remedies resorted to by farmers for their destruction or for the prevention of their devastation.

Rolling the field by moon-light has been one remedy recommended; sprinkling the young turnips with lime has been another; steeping the seed in a mixture of arsenic has been a third, in order to destroy the egg, absurdly enough supposed to be deposited therein; and another remedy recommended has been this, the use of short and rotten manure in preference to long; and I could mention numerous other foolish experiments that have been resorted to for the destruction of the fly, or for the prevention of their ravages, but all have been hitherto tried to no purpose. The fly are still found to be as destructive as ever to the turnip crops of this country, and never more so than the two last years, the winters of which have been extremely mild, and consequently not so destructive of the egg or worm from which, in all probability, they assume their being.

I shall not enter upon a dissertation of the origin of these insects (whether they are viviparous and so are generated as a worm, or weevil in the first instance, and thus live in that state throughout the winter on the roots of herbs or plants, or in the bean; or whether they are the progeny of a fly, a caterpillar, or a species of chrysonela; or whether they are oviparous, and so produce their own eggs, either in the bean flower at the latter end of summer, or in the roots of plants or weeds, at which they may easily get through the crevices of the earth at that time of the year, or whether they derive their origin from the eggs of any other fly, caterpillar, or chrysonela). I shall not venture to give an opinion as it little concerns farmers to know how or from whence they derive their existence; but I shall content myself with the knowledge that they commence committing their ravages on the young

clovers and charlock weed in the early part of the year, before the turnip crops are thought of, or the seed thereof committed to the ground.

Moreover, of this I am well aware, that they either (like the ant) are a most sapient, or (like the gnat) are a most spiteful insect; for where the young plants are thin upon the ground, there their devastation is first directed, so that they invariably destroy the thinnest parts of a crop first, possibly for this reason, that they may have a succession of plants, or plants of another sowing.

Any farmer may observe, in his late-sown turnip field, that where by accident the seed from the hand has been deposited thick upon the ground, the turnip fly is seldom known to attack destructively those plants which spring from such deposits, until they have cleared the field of the plants that have sprung from seed more judiciously sown.

Also the fly is always found to be more destructive to the young plants, when the surface of the ground is incrustated over from the effect of the rain, and consequently cracked, in the crevices of which they are sheltered from wind and storm; and possibly it is for this reason that they are found to be more destructive among long manure than they are among short; for no insect seems to be more shy of wind and stormy weather than they are, for in such weather scarcely a fly can be discerned in a turnip field, where the day before, in a milder state of the atmosphere, probably the same field might have been covered with them.

When the ground is in this incrustated state, there is little prospect of a crop of turnips, unless the farmer has his senses about him. He either should immediately harrow over his land again, if the seed should not have vegetated, or otherwise (if it should have vegetated) he should directly use his roller, night or day; and before rolling, he should sow more seed in such places where the fly has already destroyed the young plants. The roller in no case should be used after the seed is sown, except in this instance, on an incrustated surface, as the harrow (if then used) would destroy too many of the plants: and where the seed has been drilled, the horse-hoe should be immediately used, whether the plant has vegetated or not, as it acts between the drills.

The turnip plant is tender, and requires the soil to be light and friable, so that it may vegetate freely; for if the land be incrustated and set by rain, the plant will take more than twice the time before it assumes its broad leaf, which is somewhat erroneously supposed to be beyond the ravages of the fly. But the grand cause of the failure of the turnip crops so generally throughout this country is this, viz., "the quantity as well as quality of the seed sown."

Place before a hungry man 2½ lb. of beef steaks, and he probably would make much havoc among them; but give him five pounds to devour in the same time, and he would in all probability leave a fair portion for the good of the house.—It is so with the fly. Treat him only with the produce of 2½ lb. of seed, and when the weather will permit him to feed thereon, he will make strange havoc among them; but treat him to the plants of five pounds of seed, and he will show himself to be equally generous with his landlord, by leaving a fair portion for the good of the farm. I shall mention a few instances of this sort I have lately seen in my neighbouring parishes. A gentleman took me to his turnip field in the first week in September,—excellent land for the purpose. He

had he told me sown the field five times over, but only with  $2\frac{1}{2}$  lb. of seed each time per acre; the consequence was, that after the fifth sowing I did not see literally one plant in the field, which possibly might consist of twenty acres. His neighbour, who had a field opposite of about the same dimensions, had also sown most part of his five times over; sowing he told me about 3 lb. of seed per acre, which was the usual quantity he used, unless it was new seed, and in that case he sowed only  $2\frac{1}{2}$  lb. per acre: this farmer beat the gentleman before spoken of, for there was to be seen here and there a few patches of turnips,—perhaps in the whole there might be about four acres; this was also first-rate land for turnips. Another farmer nearer home had also sown most part of a field five times over, but using, he told me, only 2 lb. of seed per acre: this gentleman had, I think, been a farmer for fifty years, and I will venture to say would not have sown more if you had given him fifty pounds: it was in all probability the quantity used by his forefathers, perhaps up to the time of the flood: the consequence has been, that last year he got about two acres of turnips out of twenty; and this year he has been more lucky—that after five sowings, he has a few patches which perhaps may amount to five acres.

I could mention innumerable other instances of the same sort round my parish; and I have seen this year thousands, and tens of thousands of acres, of the best turnip lands of this kingdom in the same state of nudity, and from precisely the same reasons, with scarcely a turnip thereon.

Those crops that had withstood the ravages of the fly I generally found (after enquiry) were the produce of from four to five pounds of seed per acre.

Are not these instances, therefore, evident proof of the cause of such a lamentable failure of the turnip crops of this country?

In some seasons, when the fly is not numerous, (and that generally happens after a severe winter,) there is no doubt that  $2\frac{1}{2}$  lb. of seed, or 3 lb. may be sufficient to ensure a crop of turnips; but when the weather is hot and gleamy, and the fly abounding, no farmer should sow less than four pounds of seed per acre; and if that quantity should fail, (which is not often the case if he attend to the harrowing and rolling I have recommended on an incrustated surface,) he then should sow not less than five pounds per acre,—for he is then aware that the enemy is at hand, and will certainly remain so throughout the summer months.

A succession of ploughing does not extirpate the insect, but possibly makes him more voracious, and with a keener appetite he glories in each successive crop.

I always sow four pounds of seed the first time per acre, and I seldom have had occasion to sow again, (always attending to the rule before-mentioned with regard to harrowing and rolling,) but the fly has sometimes so judiciously set the plants out, about nine inches apart, that I have had no occasion for a man to hoe them. This year on three different sorts of land my turnips are excellent, to the surprise of every one: and I had no deficiency of plants last year, except in the middle of a field, where about two acres had been sown by a man unaccustomed to it with only about  $2\frac{1}{2}$  lb. of seed per acre, and those two acres were patchy and bad.

I have three sorts of turnips this year on three different sorts of land, viz., white stone, red globe, and green top, as well as three acres of coleseed,

and each sort are very good. In the seasons when the fly does not commit its ravages, of course in that case the plants are much too numerous, but a harrow will always remedy that evil; besides the harrowing of young turnips (when they get to a proper size) is as beneficial to them as a hoeing.

It is lamentable to think of the great premature destruction that must take place this year among the sheep of the country, as well as other cattle from the general failure of the turnip crops. Good breeding ewes in thousands have been traversing the roads to London, and other great towns, from the deficiency of winter food, as well as lamb-hogs in countless numbers.

Since therefore through the deficiency of the turnip crops, the welfare of the sheep of the country is at stake, as well as the food and clothing of man, and since the population of this kingdom is trebled in comparison with the population some centuries back, when our forefathers were so penurious with regard to their turnip seed, surely it now behoves farmers to pay more attention to the promotion of the growth of so useful and beneficial a plant, and it would well become all of them hereafter to remember, “that one good sowing, and in season,” is better than twenty bad ones; and that they may better bear in mind the rules I have laid down for always obtaining a crop of turnips, I have given them the following stanza, which if they would get by heart and teach their children after them, they will never fail of success:—

“Having well manur'd, convert the land to dust,  
Four pounds or five per acre sow you must;  
If seed they yet be, harrow the incrust'd soil,  
But be they plants, roll: 'twill pay well your toil.”

Remaining Gentlemen, your obedient servant,  
JOHN THOS. TRYON.

*Bulwick Rectory, Nov. 18th.*

#### TO THE EDITOR OF THE DONCASTER GAZETTE.

Sir,—I observed in your paper of the 29th of October that you had published a paragraph from the Lincoln newspaper respecting a maggot found in bones, and which was said to produce the fly which has this year done so much injury to the turnip crop. I beg to state that the fly which is said to have done so much mischief was not produced from a maggot; neither did the fly (although the first cause) do the actual injury. It was the larva or young of a species of fly called *Aphides* that destroyed some hundreds of acres in this neighbourhood (of the latest sown turnips). These deposit their eggs on the underside of the leaf and are soon hatched and produce the larva that destroy the turnips. About the beginning of October some of these got wings, and by the middle of October, on a fine day, the whole country was so full that they resembled a swarm of bees in miniature; and I heard from a gentleman returning from Newcastle by the coach, that he was much annoyed by their flying into his eyes. These insects do not appear to have attacked the turnips that were sown early, but those sown late in July or beginning of August are all destroyed. The turnips that were sown in June have not been injured, although manured with bones. Therefore I write you this in order that the inquiry may be attributed to its true cause, and not to bone manure, which has proved to be so valuable to the nation.—I am sir, yours truly,

JOHN HORNCastle.

*Manton, Nov. 1.*

## THE USE OF CRUSHED BONES AS MANURE.

Mr. C. W. Johnson, in a pamphlet recently published, has shown that this subject is highly deserving the serious attention of farmers in this great agricultural county. The author says—

“In the experiments hitherto made, light dry soils are most benefited by bone manure; such as dry sands, limestone, chalk, light loams, and peat. It is true that some experiments have shown an excellent result from their application to even wet, heavy soils, but this happened chiefly in the dry seasons of 1826 and 1827. Those who theoretically recommend crushed bones for such soils, because they will render them more friable, forget the small quantity in which they are employed.

“A farmer, however, near Nantwich, relates, that on a clay loam scarcely twelve inches deep, on a sub soil of grey sand mixed with clay, he finds that bone manure causes a good herbage of white clover and trefoil to grow where only sour grass grew before.

“From the result of the inquiries of the Doncaster Agricultural Association, it appeared to be the opinion of those who had employed crushed bones, that they are superior to the best stable manure—in respect to the quality of the corn, as 7 to 5; quantity, 5 to 4; and durability of effect, 3 to 2.”

The turnip crop appears to be the most benefited by the application of bones, and numerous experiments are given, demonstrating their great value for this purpose.

“In the year 1831, on a thin chalky soil, in the neighbourhood of Amesbury, in Wiltshire, Mr. Devenish employed bone manure of the quality called ‘fine,’ drilled at the rate of 24 bushels per acre, with the turnip seed, on a portion of a field of about ten acres. Part of the same field was manured with spit dung, at the rate of about 20 tons per acre, and another portion of the same field remained without any manure. The Swedish turnips produced on the boned soil, were of four times the value of those grown upon the land manured with spit manure. Those grown on the soil without any manure, were deemed scarcely worth hoeing.”

The large and increasing consumption of bones by farmers of the North of England and Scotland, has rendered it necessary to import them from all parts of Europe, and even from Buenos Ayres and North America. This novel trade has been steadily increasing for the last fifteen years. In 1821 the declared value of the foreign bones imported for agricultural purposes amounted to 15,898/12s 11d; in 1828 it had increased to 59,782/9s 11d; and in 1835, to 127,131/14s 10d.

The author gives in conclusion the following practical general directions:—

“The crushed bones have been invariably found more immediately beneficial as a fertilizer, when suffered to remain previously for some weeks, mixed with earth in heaps, exposed to the action of the atmosphere. By being thus fermented and dissolved, they are necessarily more speedily serviceable as food to the plants to which they are applied; and this observation more especially re-

lates to the oat, barley, and other spring corn, since these do not remain on the ground for so long a period as other agricultural crops. The proportion is 50 bushels of bones, with five loads of earth or clay; or 40 bushels to five loads of common dung. For wheat and pasture lands the previous fermentation of the bones is, for this reason, not so essential to the production of immediate relief. It is impossible to give any general directions for the quantity of bones to be applied per acre, since soil, situation, and climate, must all be taken into the farmer's consideration. The following facts, however, have been ascertained by numerous experiments, at some of which I have personally attended:—

“That crushed bones remain in the soil for a length of time proportionate to the size of the pieces; the dust producing the most immediate effect, the larger pieces continuing to show the longest advantage. On arable land their good effects continue for four years; on pasture land for eight.

“On turnips, oats, barley, and wheat, the quantity applied has been from 25 to 30 bushels per acre; on pasture land, from 25 to 40 bushels of bone dust, early in the spring.

“The best mode of application is by the drill, with the seed corn.

“The bones should, when first used, be always applied, for the sake of correct information, in varying quantities per acre; and on no account should the farmer omit to leave, by way of comparison, a fair portion of the field without any manure.”

## TO THE EDITOR OF THE SUSSEX ADVERTISER.

Sir,—As the severe weather we have had last week may be the harbinger of a hard winter, I wish to communicate, through your paper, to the Farmers in general, and to those on the Downs in particular, an expedient, I have tried with perfect success in removing the snow into furrows on pasture land so as to enable the stock to remain out, and more particularly sheep; it is merely by joining two oak slabs *edgeway* at a triangle so as to scrape about ten feet of snow each turn, which places the snow into ridges; one of these scrapers drawn by a pair of horses, will go over 15 acres in a day, and might be very useful in cleaning Turnpike Roads, at a small expense.—I remain, your obedient servant,

A. H.

Wadhurst, Nov. 2nd, 1836.

SHIPS' BISCUITS.—The Society of Arts has conferred its large gold medal on Mr. T. Grant, of Weovil, near Portsmouth, for the construction of a steam apparatus for preparing ships' biscuits, with superior economy, cleanliness and expedition. Formerly the feet of men were employed to tread and knead the dough, and its admixture by this means was oftentimes so imperfect that the moister portions of the mixture retained cells of water which became boiling hot, and in this state reacted upon the starch of the flour, so as to impart to the biscuit a glassy, stony hardness, which rendered it very unfit for mastication. In Mr. Grant's apparatus the labour is performed by steam power, and the mixture is thus rendered perfectly uniform. The first apparatus was erected at Weovil, under the superintendence of Sir John Romiee. Messrs. Fraser and Hullah, of Wapping, have also adopted the plan with slight modifications.

## UPON THE SMUT BALL OR BLADDERS IN WHEAT.

TO THE EDITOR OF THE ESSEX HERALD.

SIR,—In a former article I intimated my intention of giving you some further information respecting the infection of the wheat plant by smut ball, or, as is usually termed in Essex, the bladders or bags.

Some experiments by Mr. Smyth Lungley, of Church Hall, Kelvedon, have since been published in the *Essex Herald*, which alone are sufficient to prove the infectious quality of the smut ball, and that the evil may be remedied either in whole or in part, by preparation of the seed wheat previous to sowing, and showing more especially that arsenic may be used as a certain preventive. From the notice he has taken of the application of salt, as recommended by me, it would appear that it is not equally so; but Mr. Lungley, in making the experiment, did not wash the grain previously to applying the salt, which I have always advocated as the primary means, whereby the infection may be prevented.

“The knowledge of a disease is half its cure” is an old adage, which will equally apply in this case; it may be therefore necessary to investigate the origin of the disease, and the causes by which it has extended for several years past.

The infection is produced by the seeds of a *parasitic Fungus* of the genus *uredo*, which are exceedingly minute—and are produced from the smut ball or bladder of the preceding year. These smut balls, from the process of thrashing, become broken, and the seeds (which consist of the dark powdery substance they contain) are dispersed amongst the grain, where they become attached in the crevices, and at the bearded ends, from which it is very difficult to expel them; and being afterwards absorbed by the root tips, or spongelets of the wheat plant, during the process of germination, are propelled by the sap, and the infection appears the following year in the young germen or ovum of the wheat, where it vegetates and prevents the development of the parts necessary to produce the complete fructification of the plant, consequently no embryo is formed in the germen affected, but it notwithstanding continues to grow as long as the sound grains, from which they are easily distinguishable by their dark green colour which are afterwards ripened in due order with the sound grains; these appearances are as well known that it will be useless to describe them; it may however be necessary to remark that the stigma, or as it is termed the blossom of the wheat, may be found partially formed and attached at the end; but which (as is the case from disease produced by the maggot) never protrudes from the chaff similar to those in a healthy state; upon breaking the skin a dark paste (which upon ripening has the appearance of a dark brown powder) is found which produces a foetid putrid offensive odour, and, from this distinguishing characteristic, is termed the *uredo foetida*. That the smut ball contains all these properties and more, I have been able, after long investigation, to determine; if one of the smut balls is broken, immersed in water, and submitted to the microscope, an animalcule of an eel-like shape will be discovered; this has been noticed by Roget, in the early part of the late Bridgewater treatise, and at one time led persons to suppose that it was the *cause*, but it is now fully ascertained that it is only an effect and is produced as other animalcule, and has no-

thing to do in the further production of the disease.

I have from direct experiments a long time proved that the disease arises entirely from infection, for if any number of sound grains are rubbed with the smut ball and planted, and others planted without being thus infected, this result will be generally proved; but not always, as the full carrying out of the process will sometimes fail in peculiar seasons. I will, however, mention a few instances that must, to minds not prejudiced, be convincing.

In the year 1832, experiments were made and have been since continued—by rubbing a portion with the smut balls, and by planting a part thus infected and a part not—it has proved almost invariably that the former has produced smutty ears whilst the latter has not.

In the process of dressing wheat much infected with smut by a dressing-machine, (the barn doors opening upon a field sown with wheat) the crop was afterwards infected, within the circuit that the dust was blown and in quantity corresponding with the distance from the machine; in another instance a quantity of the dust was strewed upon the land already sown with wheat and produced the same result.

Wheat sown dry will produce smut ball, but if properly wetted will not; this has been proved in many instances but more especially in the last season, when the corners of the field that were last dug and sown with dry wheat produced smutty ears in abundance, whilst the other parts of the field was not infected.

A quantity of seed wheat procured from a distant county was divided amongst four individuals in different parishes—three produced smut and the other did not—the latter was sated.

My conclusion from these investigations and experiments are, that the infection may be prevented by immersing wheat in *any solution strong enough* to destroy the vegetation of the smut ball without injuring the wheat, which from its delicate nature it is not easy to effect.

For this purpose leys, brine, salt, arsenic, sulphate of copper, &c. may all be recommended as effectual—but the disinfecting may be impossible from steeping in these solutions alone, unless great care is taken by carefully washing, and skimming the surface, as, from the exceeding minuteness of the seeds of fungi, they are not easily eradicated.

My process is to select a pure stock—and, indeed, this is the main object that the farmer should have in view, and is the cause why some produce their crops without infection, and without taking any unusual precaution—I then immerse the wheat in strong lime water, and have it well skimmed; the wheat is washed in two separate tubs, and to facilitate this, a basket is used, which should be nearly as large as the tub in which it is immersed; the wheat is then put down upon a floor, and from 1 to 2lb. of salt per bushel added; in half an hour the salt will be dissolved, and after well stirring over the wheat, fresh slaked lime should be then added, and a further quantity added twelve hours afterwards, if required for drilling. The lime water is made in the proportion of one bushel of unslaked lime to 45 gallons of water.

The above process, if carefully conducted, will seldom fail. The business is usually left to servants to complete, after the usual day's employment is finished, and to men thus entrusted the getting through the operation *quickly* is the only object; this is effected by placing the wheat upon



a floor, and merely sprinkling with a watering-pot, by which more than one half the grains escape wetting, and none are thoroughly washed.

Many other processes, I have no doubt, are equally good—but this is simple and effectual. Arsenic I never used, but of its efficacy I have no doubt. I however think it too dangerous an article to introduce into practice, from the great hazard attending its use. I have witnessed its fatal effects upon poultry and game, when used for this purpose, and the disastrous consequences that might be produced by its general introduction are incalculable.

Some seasons, more especially dry ones, are more favourable to the infection than others. I am convinced that a barn floor, once infected by smutty wheat, will communicate it to other wheat, not infected, that may be afterwards thrashed upon it. The manure arising from infected straw may also have a tendency to carry on the disease to future crops.

It is a point so important as to require the serious consideration of farmers, and if each would make his own experiments and deduce therefrom his observations and make them known, a time may arrive when the disease may be unknown.

For further information I beg to refer your readers to some very able papers on the subject, by Mr. Francis Bauer, to whom I acknowledge myself much indebted.

I am Sir, yours, &c.  
ROBT. BAKER.

Writtle, Oct. 24th. 1836.

## AGRICULTURE.

### DOES LIME ACT AS A MANURE?

This question is often asked by practical men, and as often answered by others, that it does not. One will say, "that it is injurious to some crops, that where a lump of lime had laid, there the fly or other insects had taken or destroyed all the young vegetation." Others say, "that they can see no difference between where it was laid, and where it was not, no difference in any of the crops;" others, "that it does not act as a manure to give vigour and luxuriance to a crop, although it may help to corn the straw;" "it may act in making other manure more active, that if you lime your land, you ought to dung also;" "that the lime might have something to act upon." To these practical remarks, an answer may be found in the language of the camelion, (fable.)

"You all are right, you all are wrong,  
When next you talk of what you view,  
Think others see as well as you;  
Nor wonder, if you find that none  
Prefer your eyesight to his own."

Lime when in a caustic state, is injurious to vegetation, when slacked to a powder, it becomes hydrate of lime; this after being exposed to the atmosphere for a time, imbibes carbon, and thus becomes again carbonate of lime, as it was originally in the quarry.

Lime acts in two ways: 1st, in giving energy and weight to a corn crop, it holds carbonic acid, and gives it out to growing vegetation; soils having a due proportion of lime never dries up, always has moisture for vegetation. 2d, Lime enters into the composition of grain, particularly wheat, hence its use in forming the bones of man and other animals. The shells of birds and fish are formed of the calcareous matter they take in with their food; the shells of birds become thinner as the chick is formed within it, the substance going to form the bones, thus, the carbonate of lime, of which shells are formed, are converted into phosphate of lime, (bones). Shell-fish flourish only on calcareous coasts.

Manures are good or bad, in proportion to the quantity of lime, of potash, and carbon which they contain; this subject is particularly set forth in "Lance's Golden Farmer," which has become an authority amongst scientific agriculturists; his cottage farmer contains the analysis of various manures; by which we learn that gypsum is a sulphate of lime; bones, a phosphate of lime; sugar scum and soap ashes, consist principally of carbonate of lime; stable dung contains lime in proportion to the quantity of grain consumed in the food. But of all manures, the best in general, must be that which has lately been introduced to the notice of the agricultural public; known as "*Lance's Animalized Carbon*," which has lime in a chemical and mechanical union with human *feces*, in a permeable state, fit food for immediate nourishment of plants. Man feels much on wheat food, together with other vegetables and animal fibre; hence his *excrementum* contains lime in the various states in which it is required by vegetation, together with potash and carbon dissolvable with water.

Lime can be held in solution by water, and yet be perfectly transparent; nature can do the same with silex (sand), which enters into the composition of all straws and grasses. That lime will not shew its efficacy on calcareous soils, is most evident, it is like putting sand on silex. That lime will decompose vegetable fibre, and make it dissolvable with water, so to be taken up by the mouths of vegetables is also evident; and that it will also make the young vegetation, the cotyledons of plants, very grateful to the taste of insects, is also easily to be conceived; but how lime can form one of the constituent parts of grain, and not enter the mouths of plants, we are at a loss to conjecture, therefore we can conclude in no other way, than in saying, that lime held solvent in water *must be a manure* to all grain crops; and if we wish to be convinced to the contrary we must see the facts through our own eyes, and not through those of our informant. L.

### THE WINTER.

We are not certain that all the grain crops in the later districts of Dumfries-shire and Galloway are yet secured; and, without doubt, many of the potatoes are still in the field; yet our winter has already commenced, and that, too, with the greatest severity. During the last fortnight we have had repeated frosts, more resembling the setting in of a storm towards the close of December, than the thin cold weather usually experienced at this season of the year. Accordingly, we much fear, that when full accounts shall have been received from the various districts around us, it will be found that the potatoes have been injured to a very considerable extent. When potatoes are not productive, as has been too generally the case this season, they do not indeed swell so near the surface, as when the crop is good, and consequently the injury cannot have been so great this year in proportion as it would have been, had the crop been abundant. Still, from the keenness of the frost we have experienced, they must have received very considerable damage; and, altogether we suspect the supply of this article this year will be a very scanty one. When the grain crops are abundant, a deficiency in that of potatoes does not lead to any very grievous results. But this year we fear the late harvest, and unequal ripening, will render the produce of grain, in this quarter, the reverse of plentiful. If so, the winter must be a severe one to many. It may, however, be questioned on whom it will fall with the greatest severity. The labouring classes will unquestionably be among the sufferers; but it is very doubtful if a considerable class of our farmers will suffer less severely. When all producers of grain are equally affected by an unfavourable season, the suffering is consequently equal, and that suffering is often not so great as at first sight some are apt to imagine: for, under a limited produce, a better price is generally obtained. But when the better parts of our own country, as well as the nations around, have a fair crop, it is plain that the farmers, in our later and

worse districts, must suffer severely in being obliged to take for their produce, not what they would in fair remuneration require, but what they can obtain, in competition with those to whom nature has been more bountiful. Painful, however, as it is to think that hardships should fall upon any one class of society, we could wish that the abundance of the richer and earlier parts of the earth would prevent the rise of markets amongst ourselves to any great extent. Our farmers in late districts, though by no means a small body, are few, in comparison with the labouring classes of the community, and, besides, have often means of relief, which the labouring classes have not. Their later tillage is often connected with the pastures of the hills, and still more generally with the extensive grazing of cattle, the profits of which, though not quite so great of late years as those derived from sheep, have not, this year, been amiss. They have likewise the power of appealing to their landlords, who, it is but justice to say, are generally considerate when real difficulty is presented to their view. On the other hand, however, high prices of the ordinary means of support extend over a vast breadth of population—a breadth which beneficence itself could scarcely cover—and lead not only to much suffering, but to much disquiet in the State. The poorer classes in the country may bear with patience; but the labouring classes in our larger cities and towns, in the midst of the unequal price of labour and victuals, become dissatisfied and refractory; and none need be told that in these days of political agitation, such a state of things would but too surely enable the demagogues of the land to feed their passion by exciting dissatisfaction against the State; for when men are hungry, it is not difficult to convince them that their suffering is the result of misrule.

Under the most favourable view we can take of the whole matter, we look forward to rather a severe winter for our labouring classes of society. Granting that the excess of food in other districts may prevent deficiency in our own, we will at least undergo a change from the rates of an exporting to an importing district, which will be no slight change to those whose wages cannot be expected to undergo any favourable alteration on that account. But this will not be all. For in proportion as the farmers of this quarter receive lower prices in consequence of competition with other districts, while they have comparatively little to sell, the amount of labour they will be enabled to give will consequently be comparatively limited; and this decrease of employment happening to men whose usual supply of potatoes is deficient—so deficient that they will not even have the benefit of a fatted pig in defraying the expenses of their family—must bear very heavy upon them. Under these circumstances, we would call upon all on whom the sun of prosperity has shone, to mark the state of society, and consider the case of the poor. To relieve all to the extent of comfort is perhaps impossible; but it is not out of the power of beneficence to preserve all from the miseries of want.—*Dumfries Herald*. X. Y. Z.

## BRITISH WOOL.

(FROM THE FIRST NUMBER OF DENISON'S LITERARY CHRONICLE, PUBLISHED ON SATURDAY, NOV. 5.)

Winchester was the first place that possessed a manufactory, and hence we may reasonably conclude that through the first 900 years of the Christian era wool in England was not entirely neglected. About the year 925 a fleece was valued at two-fifths of the whole sheep, the value of sheep continuing the same through several centuries; but in 1135 it declined 50 per cent., whilst wool at the same time greatly increased in price. The number of sheep in the kingdom was very inconsiderable before the time of Edgar, on account of the numerous herds of wolves which retarded their increase; but the measures adopted by that prince to destroy these animals, which are the natural enemies of sheep, manifested a degree of solicitude for the preservation of the flocks which could

scarcely be expected at a period so early, and were admirably adapted to promote that attention to them which contributed to their improvement. It appears that the bettering of the fleece did not keep pace with the inclination of the people for fine clothes. In the reign of Henry II. Spanish wool, on account of its superior excellence, was imported and manufactured in this kingdom, but the policy of the age did not long permit it. The Mayor of London was ordered to burn every piece of cloth made of it. Yet again this tended to destroy the commercial spirit which began to manifest itself, and to throw the best materials into the hands of foreigners. About 1240 the importation of fine clothes in England began to be encouraged, although the effects upon the fleeces of the country, and upon the interest of the farmers must have been more pernicious than the manufactory of Spanish wool could possibly have been, had not the restless spirit of commerce counteracted the evil tendency, and carried out the surplus of wool which it was calculated to create. The surplus of wool continued constantly to increase from the time of Henry II. down to that of Edward III., and exportation as regularly took it off the hands of the growers—accordingly we find in the southern parts of the Island, where the manufacture was most attended to, and from which the largest quantity was exported, that the flocks were in the best condition, and the quality of the staple most desirable. Soon after this the importation of foreign cloth was prohibited, and in 1647 Parliament interdicted the exportation of wool,—a law which was finally established soon after the Restoration of 1660.

PEAT TILES FOR DRAINING LAND.—We have seen a specimen of draining tiles in the shop of Messrs. Sampson and Co., seedsmen, Kilmarnock, made of peat; they were sent there for the inspection of those interested in such matters, by Mr. Hugh Calderwood, Blackbyers, Fenwick, who has invented a spade which cuts them, one out of the other, in an expeditious manner. They are shaped something like a tile made of clay, and on moorlands will answer the purpose equally well. In such districts clay is not to be had, and the expence of carting clay tiles would be heavy. With Mr. Calderwood's spade, a farmer may cast 2000 or 3000 tiles a day, expose them to dry in the sun, and lay them in his drains within a few yards of the place where they were cut. When properly dried, they are very porous, and will not be softened with wetness. Peats are often met with on moors which have been buried by accident, and they are found not to be softened or decomposed, and an instance has lately happened (we believe at Catrine), where a peat remained in the boiler of a steam engine for months, and came out as hard as when put in. We earnestly recommend a trial of this mode of draining to farmers who dwell in the moorland districts of our country. The adoption of such an improvement would soon make their moors assume a very different aspect, and contribute most materially to the healthiness of our climate.—*Kilmarnock Journal*, et-*Scotsman*.

AGRICULTURAL POPULATION.—DECREASE IN ITS AMOUNT SINCE 1811.—In 1811 the centesimal proportions for great Britain were—Agriculture 35.2, Trade and Manufacture 44.4, other occupations 20.4. In 1831, Agricultural 28.2, Trade and Manufacture, 42.3, other occupations 29.8; whence it appears that the quantity of food, whose production twenty years ago required the labour of five families, may now be produced by the labour of four families; a fact of considerable importance in estimating the probability of the country's continuing its present rapid progress in manufactures, without the supply of agricultural produce being exhausted. This evidence of improvement in agriculture is strongly confirmed by another and very different examination of the subject.—*Athenæum*.

TRANSVERSE SECTIONS OF DRAINS, &c.

Fig. 1.  
Flagged Main.

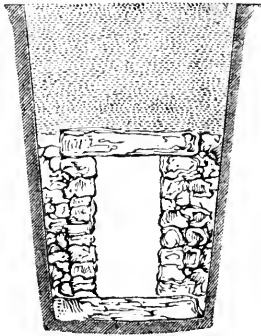


Fig. 2.  
Arched Main.

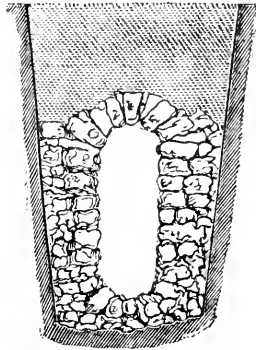


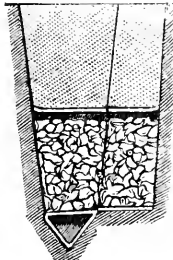
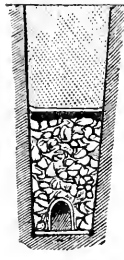
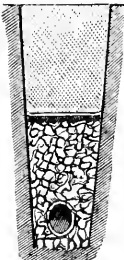
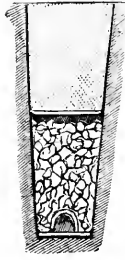
Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Soil  
Turf  
Stones



Drop-Parallel Drains.

Small Tile.

Double Tile.

Large Tile.

Inverted Couple.

Fig. 7.

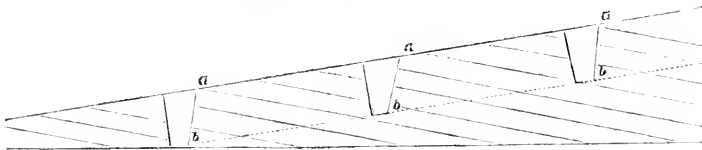


Fig. 8.



Fig. 9.



Fig. 10.



Fig. 11.



Fig. 12.

ON THOROUGH DRAINING AND DEEP PLOUGHING.

BY JAMES SMITH, ESQ., OF DEANSTON WORKS.

In the Messrs. Drummonds' Report of their Agricultural exhibition, published in March 1833, the writer of this article contributed a paper on the subject of Thorough Draining and Deep Ploughing, which has received considerable attention, both from speculative and practical agriculturists, and has

led to the introduction of the system there explained and advocated, in districts where it had not before been known, and in all instances with the most eminent success. This system when applied with any degree of care, soon speaks so prominently for itself, by its wonderful effects, that all assent to its excellence, and proprietors and tenants who have any spirit for improvement follow out the practice as far as their means will allow.

This system, as explained in the paper alluded to,

has generally been pretty clearly understood, but those unaccustomed to reckon by the Scotch acre, and the Scotch grain measure, have complained that it was somewhat difficult for them to understand, and some points in the detail of the plan of operations laid down, appear to want a more lucid exposition, which, having been suggested to the writer, he has deemed it the best plan to go over the whole subject anew in the present paper, that he may introduce what the remarks of friends and his own further experience have brought under his notice.

It is unnecessary here to go over that part of the former paper which treats of the history of the introduction of the thorough draining into Scotland, as the merits of the various introducers will be elsewhere more permanently recorded, and the extensive introduction of the system, within a few years will be their best reward.

Various systems of draining had from time to time been in vogue, and although all of these have proved more or less beneficial, according to the nature of the soil and substrata in which they were applied, still, their success was various and uncertain, and much land was unavoidably left in a very wet and unproductive state.

Cutting off the springs by very deep cross drains was one system, and which is still advocated and practised by many otherwise intelligent men. Elkington introduced a mode which was much gone into at one period. The principle of this mode was to make perforations or bores, or to dig wells into the understrata, so that the water might pass from an impervious to an open stratum.

To those who know any thing of the nature and structure of the superficial stratification of the crust of the earth in this country, this principle must, of course, have appeared of very limited and uncertain application; nevertheless it was all the rage for a time, and much money was thrown away in its application, under circumstances not at all suited to the principle.

The portion of land wetted by water springing from below bears but a very small proportion to that which is in a wet state, from the retention of the water which falls upon the surface in the state of rain, and a vast extent of the arable land of Scotland and England, generally esteemed dry, is yet so far injured by the tardy and imperfect escape of the water, especially in winter, and during long periods of wet weather, in spring and summer, that the workings of the land is often difficult and precarious, and its fertility much below what would uniformly exist under a state of thorough dryness. A system of drainage, therefore, generally applicable, and effecting complete and uniform dryness, is of the utmost importance to the agricultural interests, and, through them, to all the interests of the country. By the system here recommended this is attained, whilst the expense is moderate, and the permanency greater than on any other system yet known.

The drains as applied in the Carse, have been named "Wedge Drains," from their form, and from being filled with wedges or keys to preserve the opening in their bottoms. They are sometimes called *farrow drains*, from their being placed under the water furrows of the ridges; but these terms give no exposition of the principle upon which the effect of this mode of draining depends.

The principle of the system is, the providing of frequent opportunities for the water rising from below or falling on the surface, to pass freely and completely off; and, therefore, the most appropriate appellation for it seems to be, "*The Frequent Drain System.*"

In the natural circumstances of the soil on the sur-

face of the earth, the drainage is extremely various from that of the light dry loam incumbent on deep beds of open sand or gravel, to that of the thin sterile crust of soil incumbent on massive beds of impervious till. In the former, there is no water springing to the soil from below, and whatever falls upon the surface in the shape of rain, is instantly absorbed, and passes through the sand or gravel to some outlet at a lower level. In the latter case, water, whether springing from below, or falling upon the surface in the shape of rain, must either run slowly off over the surface, however great the distance, or in the event of a horizontal surface, must remain stagnant till evaporated by the sun, for adsorbed by the atmosphere. On such a subsoil a sufficient depth of *active soil* can never be long maintained; for, even if trenched and enriched by lime and dung, it will bear but scanty and precarious crops; and, if laid out for pasture, will, in a few years, revert to its former thin crust, producing but the coarsest herbage. Some soils are incumbent on subsoils, partially or slowly pervious to water—such, by judicious management, produce sometimes good crops in favourable seasons; but, when much rain prevails, the crops are neither bulky nor of good quality. Soils so situated are unfit for wheat, as the alternate frosts and thaws of winter acting on the water in the soil, are sure to throw out the plants. When soil is immediately incumbent on open rock, especially on whin or green stone, which is very open from its many fissures, the land is always uniformly fertile.

If, therefore, we observe carefully the operations of nature, we shall never be at a loss for principles to guide us in the cultivation of the soil. In the last stated example the open rock under the soil affords frequent and pretty uniform channels of escape for the water; hence the obvious suggestion of the *frequent drain system*.

In proceeding to apply this system of drainage to a farm, the first object is to attain a sufficient fall or level, as it is commonly termed, for a main drain to receive the water flowing from the ordinary or parallel drains.

This drain should be directed along the bottom of the chief hollow or valley of the grounds, where the whole or greater portion of the drains can be led into it. If any less hollows occur in the field, they must also have their proportional mains or leaders.

The bottom of the main should be at least three feet, and, if possible  $3\frac{1}{2}$  or 4 feet under the surface where it passes along; and it should have throughout as uniform a fall as the nature of the ground will admit.

It should be flagged in the bottom, or, where flagstones are expensive, built as an inverted arch, to prevent the possibility of washing away under the side building. The dimensions necessary will depend on the fall or declivity, and the area of land from which it has to receive water. With a fall in no place less than one foot in 100 yards, a drain 10 inches wide, and 18 inches deep, will void the rain water from 100 acres. It is of great importance to make the open area of such drains narrow and high, as smaller bottoms and covers will suit, and be less liable to give way; and the current of water being more confined, mud and sand will be less apt to settle in the bottom. Let the sides be smoothly and securely built with flat stones either with or without mortar; and let strong flat covers be placed over, (see fig. 1) or, where such are not to be found, rough, simple arches may be built with thin stones and mortar for the bottom and cover (as shewn fig. 2), packing the haunches of the arch well up to the sides of the cut.

Where less hollows occur crossing the fields, it is necessary to cut submains along their bottoms about 3 or 3½ feet deep, and having openings of suitable dimensions formed by inverted stone couples, or with drain tiles, or, where a very large flow of water has to be provided for, with an inverted tile, and a covering tile placed above the bottom one, or with larger tiles made on purpose. (See figures 3, 4, 5, and 6.)

There should be a cross submain at the bottom of every field or stretch of drains, to receive the water from all the parallel drains, and such drain should always be cut six inches deeper than the drains running into it, that the water may have a free drop, which will prevent the lodgment of mud or sand at their junctions or mouths. (See fig. 6.) Open cuts or ditches, either as mains or submains, should never, except from necessity, be adopted, being apt to get filled with mud and grass, by which water is thrown back into the drains, which often chokes them; besides the loss of land, annoyance in ploughing, constant expense of cleaning, and the unsightly appearance of the thing, are serious objections.

Having thus provided a main drain, with submains flowing into it, matters are prepared for setting off and executing the parallel frequent drains in the body of the field. The drains can be executed at any season when the weather will permit, but the spring and summer are most suitable for the work. It is best to execute the drains when the field is in grass, as it can then be done in all weathers in a more cleanly manner.

In laying off the drains, the first object for consideration is, the nature of the subsoil. If it consists of a stiff strong till, or a dead sandy clay, then the distance from drain to drain should not exceed from 10 to 15 feet; if a lighter and more porous subsoil, a distance of from 18 to 24 feet will be close enough, and in very open subsoils 40 feet distance may be sufficient. When the ridges of the field have been formerly much raised, it suits very well to run a drain up every furrow, which saves some depth of cutting. The *feering*\* being thereafter made over the drains, the hollow is filled up, and the general surface ultimately becomes level. When the field is again ridged, the drains may be kept in the crowns or middle of the ridges, but if it is intended to work the field so as to alternate the crowns and furrows, then the ridges should be of a breadth equal to double the distance from drain to drain, and by setting off the furrows in the middle betwixt two drains, the crowns will be in a similar position, so that when the furrows take place of the crowns they will still be in the middle betwixt two drains, which will prevent the risk of surface water getting access to the drain from the water furrows by any direct opening. It is, however, preferable to work thorough drained fields without ridges, preserving a uniform surface, so that the water falling on the surface may percolate from where it falls to the drains, and all currents of water and consequent washing or running of the surface is avoided; besides the crop will be more uniform and less liable to lodge, and will give a higher average, and the handsome appearance of the fields in grain or in grass is very gratifying.

Some farmers object to the want of ridges as causing difficulty in sowing and reaping. A slight rut with a single horse plough serves to regulate the sower, and the small inconvenience in reaping is far overbalanced by the many advantages. Besides, it is probable that the reaping machine will, ere long, become a powerful auxiliary implement of the har-

vest, and be in the hands of every extensive and good farmer. The absence of ridges, and the presence of a uniform and smooth surface, will tend much to facilitate its application, for furrows and gathered ridges have hitherto been its chief obstructions. At whatever distances the drains are placed, they should be run parallel to the ridges, which is commonly in the steepest descent. The drains should be run parallel to each other, and at regular distances, and should be carried throughout the whole field, without reference to the wet or dry appearance of portions of the field, as *uniform and complete dryness* is the object; and portions of the land, which may be considered dry in their natural state, will appear wet when compared with those parts which have been properly drained.

A 3 feet drain should be carried along the ends of these drains at the top of the field, and at a distance of about 9 feet from the fence, especially if it is a hedge fence. Such a drain is necessary for the growth of the hedge, and to render the end ridges, where there is much carting and turning, completely dry; but if made nearer than 9 feet, the roots of the hedge are apt to get into drain, and choke it up by degrees.

It is of importance to be accurate in laying off the drains as described, as it secures uniformity of dryness, and in all future operations, or at any time, it is easy to ascertain the line of any drain. Some people are still prone to the practice of throwing in a cross drain, or to branches going off at right angles, which is of no farther avail in drying the land, whilst it increases the length of drain without any increase of the area drained.

It may prove of great use in after times to have a plan of each field, with the lining of the parallel drains and main drains accurately laid down, and the lengths and distances marked in figures, to remain as a reference.

It has been pretty generally believed and argued, that drains laid off in this manner on a steep, will not be so effectual in catching water, but this notion can be shown to be erroneous. Drains drawn across a steep, cut the strata or layers of subsoil transversely, and as the stratification generally lies in sheets at an angle to the surface, it will be seen, on reference to fig. 7, that the water passing in or between the strata, immediately below the bottom of one drain, nearly comes to the surface before reaching the next lower drain as *a a a*. But as water seeks the lowest level in all directions, if the strata be cut longitudinally by a drain directed down the steeps, the bottom of which cuts each stratum to the same distance from the surface, as represented in fig. 7, by the line *b b b*, the water will flow into the drain at the intersecting point of each sheet or layer, on a level with the bottom of the drain, leaving one uniform depth of dry soil.

This applies alike to water flowing from below or falling on the surface; the truth of this has been practically proved on a large scale, in soils of various natures, where spouty banks have been completely dried without a single cross drain. It does sometimes happen that there exists what is called an "eye spring," arising from some accidental tubular opening in the substratum. In such case it may be necessary to run a small branch drain, from the nearest parallel drain, into the eye of the spring. This, however, is of rare occurrence.

A very important advantage of having the drains down the steep, is the prevention of any lodgment of mud or sand, the current having force from the declivity to carry them along to the main drain; besides, in the event of any accident choking a drain,

\* A Scotch term for the first furrow in breaking.

the water will either, by its altitudinal pressure, force through the obstruction, or, by bursting out at the surface, will show very nearly the spot where the evil exists. Whereas cross drains, having little declivity, are often filled high up with water for years before the insidious cause of mischief is discovered.

It has lately been asserted that drains so placed are apt to burst out, or *blow*, as it is sometimes termed. This can only take place when the drains have been executed in an imperfect manner, whereby an obstruction of the flow of water is caused; for a well executed drain will void more water running down the steep than if across, and so much rain water cannot at any time fall as to fill up the open area of interstice of the broken stones.

It is quite necessary to fill drains directed down the steep with stones of a small size—say  $2\frac{1}{2}$  inches in diameter—or with danders or gravel, to prevent the current of water from cutting or running the bottom of the drains.

The filling of drains with small sized material is in other respects preferable—no pressure will crush it, so as to fill up the interstices where the water flows—the sides of the drain are more closely and uniformly pressed, which prevents falling in or wasting—no moles, rats, or mice, or other such vermin, can make way into the drains, or force such a quantity of earth in from the sides as to stop the flow of water—besides, material for such is more generally and easily found, and the execution is cheaper, unless the masses, from which the stones have to be broken, are very large—by collecting, from the surface of the fields, all stones not larger than a hen's egg, as many can be found in most dry field situations as will serve to drain completely a field of equal extent. These smaller stones requiring no breaking, and being gathered by women and children, cost very much less. It has been plausibly maintained by some theorists, that small materials filling a drain, will be apt to catch earthy matter from the water flowing along, and become in a few years, a dense mass of stony earth, altogether ceasing to form a drain. Without meeting this objection by a train of reasoning, which could be satisfactorily done, it may be quite sufficient to state, as fact, from experience, that such result does not take place.

Indeed, the water passing into the drains, by filtration, being perfectly pure, has no sediment to deposit; for, even during the heaviest rains, the water passing from a properly made drain has merely a slight milky tinge. Tiles for such drains are very expensive, costing more for tiles alone, in most circumstances, than the whole cost of a broken stone drain; besides, they are precarious as to durability, as one tile yielding may stop a great length of drain.

There are situations, however, where, from the want of stony materials, tiles must be resorted to. It is generally in flat carse land where tiles are used; also in districts of extensive fields of clay, with a scanty supply of stones. Fig. 8 represents a transverse section of the tiles commonly used, *a* being the covering tile, 4 inches wide, and 6 inches deep, *b* the sole or bottom tile. In hard bottomed land the sole tile is unnecessary. The tiles are generally from 12 to 14 inches long; they are sold by the maker at from 3s to 3s per thousand, and, where soles are included about 50s per thousand; but I have been assured by an intelligent gentleman, that he can furnish them in his own ground, where coals cost 4s per ton, at 14s per thousand, and with soles at 21s per thousand, not including any charge for implements, &c., necessary in the manufacture, such as a clay mill, drying sheds, and a burning kiln; but

these are not very expensive, and will last for many years with little repair, and one such establishment will furnish tiles for a large district of country. When tiles are used it is not necessary to cut the drains so deep as where stones are to be used, 24 inches is quite enough. Mr. M'Ewan of Blackdub, on the Blairdrummond Estate, near Stirling, has with much ingenuity and perseverance, perfected a plough, which, in the carse land, throws out a furrow of from 16 to 18 inches deep, leaving 6 inches to be taken out with the spade for the seat of the tile. This he gets done and the tile placed for 6d per rood of 36 yards. The plough requires from 8 to 12 horses, and 7 men, who can execute with ease 324 roods of 36 yards per day; taking 12 horses at 4s each, and 7 men at 2s, the amount will be 62s, being about 2d per rood. Taking tiles at an average of 15 inches, and allowing for breakage, about 100 will lay a rood of 36 yards, which will make the cost of tiles furnished on the ground 1s 5d per rood, when flats or bottom tiles are used, they will cost in addition 8d, making in all 2s 1d for tiles and bottoms. But when tiles and bottoms are bought and carried, they will cost at least 6s per rood.

As much sandstone as will fill a rood with broken stones, say two cart loads, can be in most circumstances quarried, carted a mile, and broken to pass through at  $2\frac{1}{2}$  inch ring for 3s 6d. When flat thin stones can be procured, many people still make their drains with what is called a coupled bottom. Fig. 9 represents the common form of coupling. Fig. 10 the inverted couple, which is by far the most preferable when couples are at all used.

Coupled drains are, however, objectionable, being very liable to occasional, if not frequent failures, admitting moles, rats, &c. to travel in them, and being more apt to allow cutting of the bottoms of the drains in steep parts. Box drains are expensive, and liable to all the objections to coupled drains, with the additional fault of having a broad flat bottom, in which mud and sand are apt to accumulate and lodge—sometimes to the complete filling of the open area of the drains. (Fig. 11 shows a box drain.) In some parts of the country, where thin bedded rock prevails, the bottom filling of the drains is frequently done by placing three or more stones on edge, side by side, as shown in fig. 12, having openings betwixt them for the water to pass; this mode may do very well, and under some circumstances may be cheaper, but I do not consider it so secure as broken stones, especially where the drain is on a steep, or where the bottom is soft. The broken stones constantly check any tendency to a rapid flow of the water, and in soft bottoms they press on many points, and fall in to fill any hole that may eventually take place, and so prevent further mischief. Filling of drains with great irregular stones, some of them closing nearly the whole cross sectional area of what should be the open way of the drain, is too slovenly and absurd a practice to require any refutation. When the work is altogether done at the expense of the tenant, prudence or necessity will often lead to less expensive filling, such as using the stones larger and fewer of them, but when permanency is wanted, the greater expense and care should always be incurred, as much of the permanency depends on careful filling with proper material.

The lines of drains having been marked off in the field, the drainer begins by cutting with a spade on a line, then removing a first spading of about 13 or 14 inches wide all along; another follows with a narrower and a tapering spade made for the purpose, taking out another spading, and when picking becomes necessary, a third man follows with a pick,

and a fourth with a large scoop-shovel to cast out the earth—a smaller scoop-shovel is used to clean out the bottom, which should be cut as narrow as will allow the last drainer a footing, generally about 3 or 4 inches. From 2 to 2½ feet from the surface, are the best depths for such drains, the latter always to be preferred. The bottom should be cut as straight and uniform as possible, so that the water may flow freely along at all places, and it is better to cut a little deeper when there is any sudden rise of the surface, than to follow it; and where sudden hollows occur, the cutting may on the same principle be less deep; attention to this also admits of after straightening or levelling of the surface, without any injury to the drains. The workmen, in cutting, should throw the earth to the right and left from each alternate drain, so that allows the plough to go regularly and fully occupied *boutings*,\* in filling in the earth, whilst each alternate ridge or space is left for getting in the stones free from the earth thrown out. The stones may either be laid down at intervals by the sides of the drains, to be there broken, or being broken in masses at some convenient spot, and at such convenient seasons as best suit for the employment of spare labour, can be brought by the carts ready to be filled in. No stones should be filled in, till the whole line of drain has been cut out and inspected, but the sooner drains are completed after having been cut the better, and they should always be filled from the higher level downwards. Sometimes when there is much tendency of the sides to fall in, it becomes necessary to fill in going along. Cutting in the Summer, when there is little water in the soil, or in any dry season, saves much of this. In soft or sandy bottoms, by cutting the drains to half the depth in the first instance, and allowing them to remain so until the water has been voided from the upper stratum of the soil, the lower part may then be cut out with more safety from falling in. The stones should not be filled nearer to the surface than 18 inches, leaving 16 inches free for deep ploughing.

The upper surface of stones having been made straight and uniform, the whole should be neatly and closely covered with a thin thatch or *flauchier divot* or turf, cut from the adjoining surface, or brought from some suitable place. *Strict attention to the correct execution of this operation is of the greatest importance, as many drains are ruined at once from the running in of loose earth.* Thick turfs are objectionable, from the difficulty of getting them to fit close. Straw, rushes, broom, whins, and other like materials, are very objectionable, affording no certain or uniform security, and forming a receptacle for vermin; peat moss, in a thin layer well beat down, may be used to advantage. When the deepest ploughing has been executed, there should always remain a firm crust of earth undisturbed over the stones of the drain; and no surface water should ever have access to the free way of a drain by any direct opening, but should find its way by percolation or filtration through the subsoil, and should always enter by the sides of the drains. It may be of advantage to tramp or beat down closely the first 2 inches of soil put over the turf, in order to form the permanent crust.

The cost of executing such drains varies, of course, according to circumstances—the cutting costing from 1s 6d to 2s 6d per rood of 36 yards, according to the hardness of the subsoil; the stones,

if collected on the adjoining fields, will cost from 1s to 1s 6d per rood, the breaking from 9d to 1s per rood; about 1½ cubic yards of broken stones will fill a rood of a narrow and well cut drain; the putting in of the stones may be calculated to cost about 3d per rood, and the turfing about 1d; the filling in of the earth over the stones with the plough will cost about 1d per rood. The whole cost per rood of common drains may be taken at 4s 8d, or, including a charge to cover proportion of main drains, 5s.

The tables at the end of this article exhibit the cost per Scotch acre, and per statute acre, of draining in this method, at various distances between the drains; and such forming a permanent improvement of the land, it is presumed the proprietor should defray part of the expense.

The tables are therefore constructed to show how much it will cost the landlord in money to do the cutting, furnishing, breaking, and filling in of the stones, and turfing; and how much the horse work, &c. to be performed by the tenant, will cost, charged at the ordinary rates.

In cases where time or capital are wanting to complete the drainage at once, each alternate drain may be executed in the first instance, and the remainder can be done next time the field is to be broken up.

After the drainage has been completed, a crop of oats may be taken from the field; and immediately after that crop shall have been separated from the ground, the field should be gone thoroughly over with the Subsoil Plough, crossing the lines of drains at right angles.

The SUBSOIL PLOUGH, as exhibited at Messrs. Drummonds', (a figure and description of which will be found in this Report), has been constructed on principles appearing the best fitted to break up the subsoil completely, to a depth sufficient for most thorough cultivation, say 14 to 16 inches, allowing the active soil still to remain on the surface—to be of the easiest possible draught in reference to the depth of furrow and firmness of the subsoil—to have strength and massive weight sufficient to penetrate the hardest stratum—to resist the shocks from fast stones, and to throw out all stones under 200lbs in weight. All this has been accomplished and practically proved, over an extent of at least 200 acres of various soils; and reports of the successful application of those ploughs in various parts of England and Scotland, during the last and this season, have been received. The plough requires 4 good horses, an active ploughman, and a lad to drive the horses and manage them at the turnings. Six horses yoked three and three a-breast, may be necessary in some very stiff or stony soils. A common plough, drawn by a pair goes before the subsoil plough, throwing out a large open furrow of the active soil. The subsoil plough following, slits up thoroughly and breaks the bottom, when the next furrow of active soil is thrown over it; the stones brought to the surface by the subsoil plough being thrown aside on the ploughed part of the land by a lad, and so on till the whole field is gone over. The lad should carry a bag of wooden pins that he may mark the site of the large fast stones which the plough cannot throw out, and which must afterwards be dug out with the pick, and perhaps blasted.

The large plough is a sort of *horse pick*, breaking up without raising to the surface the subsoil. Channels are thus regularly formed for the water to flow from all parts towards the drains. The atmospheric air being also by this means freely admitted to the

\* A Scotch term for a rotation or traverse of the plough.

subsoil, the most sterile and obdurate till becomes gradually meliorated, and the common plough may ever after be wrought to a depth of from 10 to 12 inches without obstruction, and with the power of three horses, yoked a-breast, and managed with ease by the ploughman without any person to drive—being thus yoked together, and near the point of resistance, the horses have great power. The furrow turned over being broad in proportion, nearly as much ground will be gone over in a day as with a plough and a half drawn by a pair of horses. The charge of subsoil ploughing an acre may be estimated at 24s, being one-fifth of what a similar depth with the spade would cost, and, upon the whole, as effectually done. A subsoil plough weighing 4 cwt, with apparatus will cost from 7*l* to 8*l*. When land which has been opened up by the subsoil plough shall have undergone the first rotation of cropping, the soil may then be turned up and mixed to the full depth previously penetrated by the subsoil plough say 16 inches. This is executed by a plough either made in the form of Wilkie's plough, having all its dimensions made of double size, or what is found to answer fully as well, by a plough in the fashion of the old Scotch plough, but also of double the dimensions. Such ploughs require six horses, yoked three and three a-breast, with two men to do the work effectually. This operation should be performed in turning over the winter furrow preparatory for green crop, and the sooner the work is performed after harvest the better. In estimating the expense of this operation, the horses may be charged at 4s each, to cover all expenses tear and wear, &c., which will amount to 24s; two men at 2s—1s; and an attendant lad to pick out stones 1s, in all 29s. As the work is heavy, the motion of the horses is necessarily slow, and it will in general take eight hours working to accomplish one Scotch acre or 1½ statute acre. The expense of this operation may appear alarming, but when it is considered that one such ploughing will be more effectual in killing weeds, and in exposing the soil to the air, than two ordinary ploughings, we may deduct the cost of two such—20s, leaving 9s, to be charged against the deep working. All who have ever studied or experienced the most common gardening must be aware of the important advantages of deep working, and when it can be attained in the broad field of farming at so small a cost, they may easily believe that the whole will be more than doubly repaid, in every succeeding crop, and abundantly even in pasture. When land has been thoroughly drained, deeply wrought, and well manured, the most unpromising sterile soil becomes a deep rich loam, rivalling in fertility, the best natural land of the country, and from being fitted for raising only scanty crops of common oats, will bear good crops of from 32 to 43 bushels of wheat, 30 to 40 bushels of beans, 40 to 60 bushels of barley, and from 48 to 70 bushels of early oats per statute acre, besides potatoes, turnips, mangel wurzel, and carrot, as green crops, and which all good agriculturists know are the abundant producers of the best manure. It is hardly possible to estimate all the advantages of dry and deep land. Every operation in husbandry is thereby facilitated and cheapened, less seed and less manure produce a full effect, the chances of a good and early tid\* for sowing are greatly increased—a matter of great importance in our precarious climate,—and there can be no doubt that even the climate itself will be much

improved by the general prevalence of dry land. When this subject was treated of in the former report, published in March, 1833, the system was just beginning to be adopted in a few places in a very few districts of Scotland, England, and Ireland, and in most instances on a very limited scale. Since then the intrinsic merits and evident outspeaking results of the system have raised its character, even with many of its former opponents; and one cannot now travel almost any where in the country, without seeing, either on a large or small scale the operation of thorough draining going on. The deep ploughing is not yet so general, but it will undoubtedly follow: and it is to be regretted that in the mean time, some zealous and good farmers, not aware of its advantages, are filling their drains so near the surface as to mar the future thorough application of the system of deep working.

Thorough draining is the foundation of all good husbandry, and when combined with deep ploughing insure a general and uniform fertility, assisted no doubt by the essentials, thorough working and cleaning, ample manuring, and a proper rotation of crops.

In making a survey of the agricultural aspect of Scotland, and great part of England, it must be evident to every one skilled in agriculture, that by much the greatest proportion of the arable land, indeed we may assume three-fourths of the whole, is under very indifferent culture, arising mainly from the want of complete draining and deep working; and looking even to the best farmed districts with the eye of an experienced farmer in the thorough system, much of the land will be seen suffering under wet or damp. All the heavy lands of the Lothians, Berwickshire, Fife, Strathmore, Clydesdale, &c., would be greatly benefited by the introduction of the system, and if generally adopted we would hear no more of "stiff clays," "cold retentive soils," and the like, in the Agricultural Reports.

There is no want of employment for all the spare labour and spare capital of the country, in the general thorough cultivation of the soil, and if properly gone about, it will afford ample remuneration to the individual possessors and farmers of the land, while the riches of the country will be greatly increased.

The cultivation of the inferior soils will tend to lower the value of the high rented lands, but the general rental of the country will be much increased whilst the prices of all agricultural produce will be lowered, thereby affording cheaper sustenance to the manufacturers, which will enable them to meet more effectually the cheap labour of other countries; and it is not at all improbable that Britain may become an exporting country in grain in the course of the next twenty years, thereby overthrowing the bugbear corn laws without a political struggle. This may appear a very bold anticipation, but to those who know intimately the history of the progress of the wonderful improvements which have taken place in the various leading manufactures of the country, in the course of the last twenty years, and who can appreciate the vast improvement of which agriculture is yet susceptible, it will seem as no very hopeless prospect. Often was it thought that the perfection of these arts had been attained, when, by the application of science, capital, division of labour, and industry, some new and extensive step was gained whereby the cost of production was cheapened, and immediately the field of consumption was extended. In most cases those steps of improvement were urged, more by the necessity arising from low profits, and extensive rivalry, than from the encouragement of high profits and extensive demand. So is it

\* "Tid," a Scotch term for that state of the ploughed soil which is most suitable for receiving the seed—neither too moist nor too dry.



now operating with the agriculturist. During the reign of high prices, any sort of farming was sure to pay; but now, when prices are low, nothing but skill and capital, and well regulated industry will do; and since higher prices are scarcely to be looked for, the only hope of the landowner and the farmer, is to use every means to produce their articles cheaper and in greater quantity. From the progress which the system of thorough drainage has already made, the lists are fairly entered by the hitherto con-

sidered poorer soils against the rich, the rivalry cannot be stopped, and the result will shortly be, a greater agricultural advancement in Great Britain than has ever before taken place. The grand natural prompter, *self-interest*, will in due time sufficiently work out such results. Yet much may be done in assistance by the exertions of proprietors, and agricultural associations; and by the national legislature, in the case of entailed lands.

TABLE BY THE SCOTCH ACRE.

Subsoils to which the distances are applicable.	Distance between the drains in feet.	Roads per Acre.	Cost per	Cost per	Cost per	Cost per	TOTAL
			Road to Landlord.	Acre to Landlord.	Road to Farmer.	Acre to Farmer.	Cost per Acre.
			s. d.	£. s. d.	s. d.	£. s. d.	£. s. d.
For hard till subsoil. . .	10	48	3 4	8 0 0	1 8	4 0 0	12 0 0
..	11	43 $\frac{3}{4}$	..	7 5 10	..	3 12 11	10 19 9
..	12	40	..	6 13 4	..	3 6 8	10 0 0
Stiff Clay . . . . .	13	37	..	6 3 4	..	3 1 8	9 5 0
..	14	34 $\frac{1}{2}$	..	5 14 5	..	2 17 3	8 11 0
Sandy Clay . . . . .	15	32	..	5 6 8	..	2 13 4	8 0 0
..	16	30	..	5 0 0	..	2 10 0	7 10 0
..	17	28 $\frac{1}{4}$	..	4 14 2	..	2 7 1	7 1 3
..	18	26 $\frac{3}{4}$	..	4 9 2	..	2 4 7	6 13 9
..	19	25 $\frac{1}{2}$	..	4 4 5	..	2 2 3	6 6 8
..	20	24	..	4 0 0	..	2 0 0	6 0 0
Free stony bottom . . . .	21	23	..	3 16 8	..	1 18 4	5 15 5
..	22	21 $\frac{3}{4}$	..	3 12 6	..	1 16 3	5 8 9
..	23	20 $\frac{3}{4}$	..	3 9 2	..	1 14 7	5 3 9
..	24	20	..	3 6 8	..	1 13 4	5 0 0
..	25	19 $\frac{1}{4}$	..	3 4 2	..	1 12 1	4 16 3
..	26	18 $\frac{1}{2}$	..	3 1 8	..	1 10 10	4 12 6
..	27	17 $\frac{3}{4}$	..	2 19 2	..	1 9 7	4 8 9
..	28	17	..	2 16 8	..	1 8 4	4 5 0
..	29	16 $\frac{1}{2}$	..	2 15 0	..	1 7 6	4 2 6
More open bottom . . . .	30	16	..	2 13 4	..	1 6 8	4 0 0
..	31	15 $\frac{1}{2}$	..	2 11 8	..	1 5 10	3 17 6
..	32	15	..	2 10 0	..	1 5 0	3 15 0
..	33	14 $\frac{1}{2}$	..	2 8 4	..	1 4 2	3 12 6
..	34	14	..	2 6 8	..	1 3 4	3 10 0
Irregular beds of gravel or sand, and irregularly open rocky stratifications . . . . .	35	13 $\frac{3}{4}$	..	2 5 10	..	1 2 11	3 8 9
..	36	13 $\frac{1}{2}$	..	2 4 5	..	1 2 3	3 6 8
..	37	13	..	2 3 4	..	1 1 8	3 5 0
..	38	12 $\frac{3}{4}$	..	2 2 6	..	1 1 3	3 3 9
..	39	12 $\frac{1}{2}$	..	2 1 1	..	1 0 7	3 1 8
..	40	12	..	2 0 0	..	1 0 0	3 0 0

TABLE BY THE STATUTE ACRE.

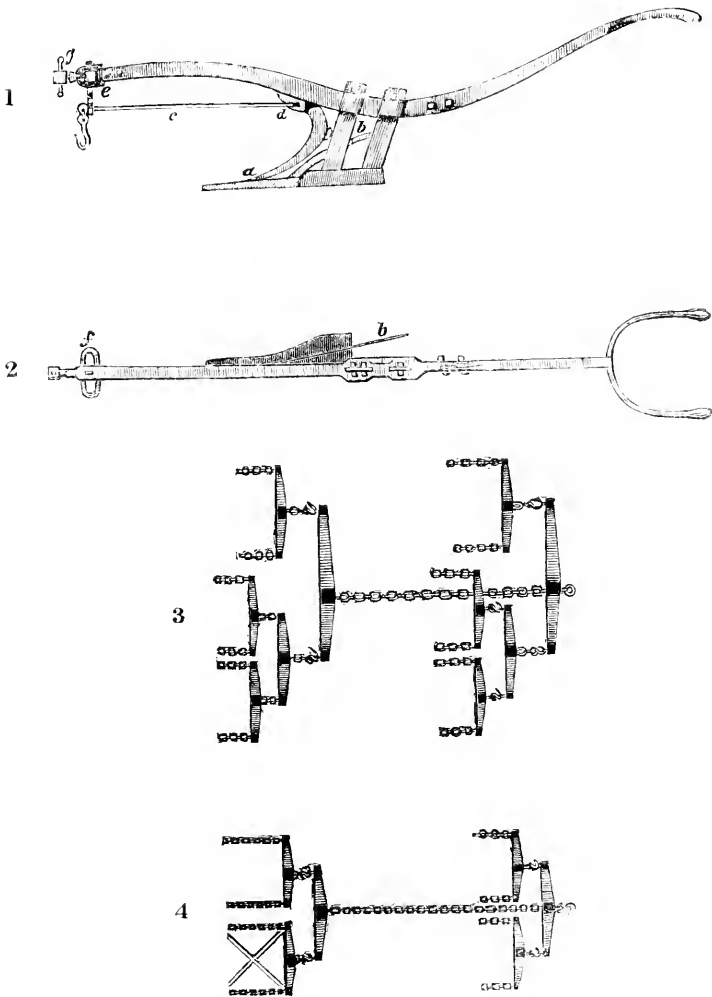
Subsoils to which the distances are applicable.	Distance between the drains in feet.	Roods per Acre.	Cost per Rood to Landlord.	Cost per Acre to Landlord.		Cost per Rood to Farmer.		Cost per Acre to Farmer.		TOTAL Cost per Acre.	
				£.	s. d.	s. d.	£.	s. d.	£.	s. d.	
For hard till subsoil ..	10	38	3 4	£.	6 6 8	s. d.	1 8	£.	3 3 4	£.	9 10 0
..	11	34½	..	5	15 0	..	..	2	17 6	8	12 6
..	12	31¾	..	5	5 10	..	..	2	12 11	7	18 9
Stiff Clay .....	13	29¼	..	4	17 6	..	..	2	8 9	7	6 3
..	14	27¼	..	4	10 10	..	..	2	5 5	6	16 3
Sandy Clay.....	15	25¾	..	4	4 5	..	..	2	2 2	6	6 7
..	16	24	..	4	0 0	..	..	2	0 0	6	0 0
..	17	22½	..	3	15 0	..	..	1	17 6	5	12 6
..	18	21¼	..	3	10 10	..	..	1	15 5	5	6 3
..	19	20	..	3	6 8	..	..	1	13 4	5	0 0
..	20	19	..	3	3 4	..	..	1	11 8	4	15 0
Free stony bottom ....	21	18	..	3	0 0	..	..	1	10 0	4	10 0
..	22	17¼	..	2	17 6	..	..	1	8 9	4	6 3
..	23	16½	..	2	15 0	..	..	1	7 6	4	2 6
..	24	16	..	2	13 4	..	..	1	6 8	4	0 0
..	25	15½	..	2	10 10	..	..	1	5 5	3	16 3
..	26	14½	..	2	8 3	..	..	1	4 1	3	12 4
..	27	14	..	2	6 8	..	..	1	3 4	3	10 0
..	28	13½	..	2	5 0	..	..	1	2 6	3	7 6
..	29	18	..	2	3 0	..	..	1	1 6	3	4 6
More open bottom ....	30	12½	..	2	1 8	..	..	1	0 10	3	2 6
..	31	12¼	..	2	0 10	..	..	1	0 5	3	1 3
..	32	12	..	2	0 0	..	..	1	0 0	3	0 0
..	33	11½	..	1	18 4	..	..	0	19 2	2	17 6
..	34	11¼	..	1	17 6	..	..	0	18 9	2	16 3
Irregular beds of gravel or sand, and irregularly open rocky stratifications .....	35	11	..	1	16 8	..	..	0	18 4	2	15 0
..	36	10¾	..	1	15 10	..	..	0	17 11	2	13 9
..	37	10¼	..	1	14 2	..	..	0	17 1	2	11 3
..	38	10	..	1	13 4	..	..	0	16 8	2	10 0
..	39	9¾	..	1	12 6	..	..	0	16 3	2	8 9
..	40	9½	..	1	11 8	..	..	0	15 10	2	7 6

## WEEDS.

Experience would soon teach a man, when he was necessitated to raise the greatest possible produce from the land to meet the urgent demands upon it, that the existence of weeds in the land was injurious to his crops; that weeds which are the natural production of the soil were more easily fostered with manure, and less liable to be affected by the vicissitudes of the weather, than the cultivated corn crops. He would soon discover that it was not by a repudiation of these corn crops that the weeds would be subdued; but that, on the contrary, every year would only give additional strength to them, so that in a few years the ground would be so matted together by the interlacing of their roots, that no tender plant, like any of the cultivated ones, could possibly penetrate through such a mass of living net-work. Experience would soon teach all this. And yet in spite of this experience, which must be within the reach of every man who cultivates the ground on a large or small scale, the slovenly practice of allowing weeds to grow on cultivated lands is too much countenanced in the agriculture of the Principality. Corn crops must be sown early in the spring, and as the whole summer is required to bring them to maturity, winter can be the only period of leisure under such wretched management, in which the land can be cleaned; but to attempt to kill weeds in a season when the progress of the plough and harrow is generally arrested by rain or frost, is impracticable. The culture of green and white crops alternately, is a successful expedient in checking the growth of weeds, in maintaining the fertility of land, and enjoying the benefit of a crop.

But still experience, that hard and uncompromising master, places an obstacle to the success of even the plausible expedient of man. But how can he help it? Paltry as these weeds are, they effectually prevent the growth of his crops, and he is driven to this expedient, namely, following by shear necessity. He must clean his land, or lose the greater part of his labour in cropping the soil. This alternative will not permit of hesitation. Hence, then, the object of all following is to clean the land, and hence also no following, but that in summer, will effectually do it. A strong crop of turnips, and part of it eaten off by sheep, assist very much in cleaning the land even of root weeds. But will summer fallow keep land clean? Undoubtedly it will, if properly performed. It gives the opportunity of working land in June and July when the sun is so powerful, and the atmosphere so warm and dry, as to kill every plant that has not a hold of the ground. It must be confessed that following is too often worked very negligently. The farmers display great negligence and ignorance in thinking that weeds ploughed down afford nourishment to the soil, when that soil has been exhausting itself in bearing the crops of weeds. The world is always in a state of pupillage; some are learning what others know; and the observations which to the young are interesting, are to the experienced and wise trifling and superfluous. So it must be with essays on agricultural subjects, which can only be directed to the general instruction of the experienced; while the practised and sagacious agriculturist must be requested to pardon the particularity with which things well known to him are so tediously written down.—*Salopian Journal*.

## SUBSOIL PLOUGH.



## SUBSOIL PLOUGH AND DEEP FURROW PLOUGH.

By JAMES SMITH, Esq., of Deanston Works.

The Subsoil Plough, of which an elevation and bird's eye view are given on the above plate, was designed by the writer of this article, about nine years ago, for the purpose of opening up the close subsoil of the farm of Deanston.

In the design, two essential points were kept in view.—1. The construction of an instrument that would effectually open up the subsoil without throwing any of it to the surface, or mixing it with the active or surface soil.—2. To have an implement of the easiest possible draft for the horses, while it was of sufficient strength and weight to penetrate the firmest ground, and resist the shocks on the largest stones.

The extreme length of the plough is about 15 feet. From the socket at the point of the beam to the first

stile or upright, 6 feet; from thence to the back of second stile, 19 inches; from thence to the outer end of holding handles, 7 feet; from the sole to the bottom of beam at stiles, 19 inches; length of head or sole bar, 30 inches; from head of sole to point of sock, 46 inches; broadest part of sock, 8 inches. The coulters are curved, and in order to prevent its point being driven from its place by stones, it is inserted to the depth of an inch in a socket (*a*). The lateral dimensions of the sole piece are 2 inches square. This is covered on the bottom and land side with a cast-iron sole piece to prevent wear. The sock goes on to the head in the usual way, and from its feather rises the spur piece (*b*), for the purpose of breaking the subsoil furrow. When the subsoil consists of very firm clay or other hard and compact earth, the feather and spur piece may be dispensed with, and a plain wedge or spear pointed sock, such as those of the old Scotch plough, may be used. The draft bar (*c*) of 1½ inch round iron, is attached to the beam at the strong eye (*d*), and passing through an eye in the upright needle (*e*), is adjust-

able to any height or lateral direction, being moveable in the socket (*f*), at the point of the beam, and can be made fast at any point by a pinning screw wrought by the lever (*g*). By the proper setting of the draft rod, the direction of the power of the horses is so regulated as to render the guiding of the plough easy at any depth or width of furrow. The beam is about 5 inches deep at the middle, and  $\frac{1}{4}$  inch in thickness—towards the draft end it tapers to 3 inches deep, and 1 inch thick; at the holding end where the handles branch off, it is 2 inches by 1. The whole weighs 440 lbs imperial. This appears an enormous weight, and most people are alarmed at the strength and weight of the implement, but after repeated trials with lighter ploughs, those of the dimensions and weight now described have been found to be at once the most efficient, the most easy of draft, and the easiest for the ploughman to manage.

Four ordinary farm horses are generally sufficient to draw this plough in breaking up subsoil of ordinary firmness; but on very tough clays or in hard till, it may be found necessary to use six horses. When four are used, they are yoked two and two, by draft bars and chains, as shewn in fig. 4. When six are used, they are yoked three and three, by draft bars and chains, as shewn in fig. 3. The main chain for the leading horses to pull by is hung, in both cases, by links from the collars of the rear horses, to keep it up from their legs, and the trace bars of the leaders are kept close up to their hams by cross straps on their quarters.

When horses, which have been accustomed to work in pairs, are first put to work in this plough, they are apt to be a little restive, and do not at first pull well together, and this is especially the case when the subsoil is stony. The ploughman also finds some difficulty in balancing the plough at first, and if he is not a man of quiet and firm temper, the whole affair puts on the appearance of an arduous and hopeless undertaking; a few hours or days at most, however, of temperate perseverance will overcome all difficulties, and horses and men will work together with steadiness and effect. The work is, indeed, in most cases severe, and the horses are frequently warm and fatigued; but to insure good farming, the work *must* be done, and will amply repay all the trouble and expense. When a field or farm has been once efficiently gone over with the subsoil plough, it is not again necessary to repeat the operation, as the original stratum or the subsoil has been completely broken up, and all land stones which offer any serious obstruction to the plough have been removed. In after operations of deep ploughing, the work should be performed by an implement in all respects resembling the common plough, either Small's, Wilkie's, or the old Scotch plough, but of double the dimensions in all parts. In free soils, four horses yoked two and two, are sufficient to plough to a depth of 16 inches; but in heavier soils, six horses, yoked three and three, will be found necessary. This plough, which may be called a trench plough, should be applied once in each rotation of cropping, and the best time is in giving the first furrow for green crop, or in the event of summer fallow being followed, in the first furrow of that operation; this plough makes a mixture of the soil and subsoil, for which the latter has been prepared by the admission of air and water from the effects of the subsoil plough.

The operation, both with the subsoil and trench plough, should run at right angles to the line of drains, as channels are thereby opened for the rain water to flow towards the drains. When drains have been sometime executed, innumerable small fissures will be found in the subsoil, extending from

drain to drain; these are caused by the contraction of the substance of the soil arising from its drier state—the contraction being greatest in the stiffest clays—the operation of the subsoil plough admitting the air to a greater depth, the fissures take place under its operations, and generally reach to the level of the bottom of the drains. These fissures will get more or less silted or glutted up from time to time by the minute diluvial particles carried down and left in filtration by the rain water, but the constant expansion and contraction of the unremoved subsoil, by the alternations of wet and dry, has a perpetual tendency to renew them; so that so long as the drains flow freely there will never be wanting minute channels for the percolation of the water from all parts towards the drains.

A subsoil plough costs from 7*l* to 8*l*, and a full-sized trench plough from 4*l* to 5*l*; and it is hoped that any plough-maker will be able to make them from the preceding description and plate.

Mr. Murray of Polmaise has just had a plough constructed on the principle of the subsoil plough, but of smaller dimensions, and weighing only 168 lbs imperial, which in dryfield soil, with a *moorband* bottom, has been drawn to the depth of 16 inches, and proved effective in breaking up the subsoil, and turning out stones of considerable size.

In the experiment alluded to, the plough was drawn by three horses, so yoked that two go in the furrow, and one on the unploughed land.

Price of this plough about 3*l* 5*s*.

## A CASE OF ACUTE FOUNDER IN BOTH HIND FEET.

By MR. CHARLES CLARK, LONDON.

(From the Veterinarian.)

The subject was a brown mare, seven years old, purchased at the last Lincoln fair by a west-end dealer, who brought her up to town in the string with a number of other horses. She was docked and shod after the fair, and left Lincoln sound; but after the first day's journey appeared to favour the off hind foot, which induced the owner to have the shoe removed, when, however, no cause was found for the lameness; and as it was not severe at first, they continued to travel her towards town. On the morning I saw her she had come nearly thirty miles; she was very lame in the off leg, and partially so in the near one. After standing a short time she became worse; and the blame being still imputed to the farrier, we contrived with great difficulty, to raise the foot far enough from the ground to take off the shoe, when I was surprised to find that the wall was particularly good and strong; and the nails had all been driven with such unequivocal safety, that I at once exonerated poor Vulcan (in this instance) from all share of blame. The near shoe we could not then take off, for the mare would not stand a moment on the other feet. The symptoms now became exceedingly puzzling. The feet themselves did not feel very hot, but the legs were uncommonly so. She kept shifting them quickly, and the muscles of the thighs and loins were constricted and quivering in a manner I never saw before to such a degree. The pulse was accelerated, and eyes staring with pain; but she kept snatching small quantities of food, and drank freely.

She was bled largely, had a mild dose of aloes, and

repeated clysters, with warm fomentations and bandages to all legs.

May 3d.—Much worse; equally in pain with both legs; muscles more contracted and rigid; head and tail staring. Has lain down at full length for some hours, and got up again with difficulty: every appearance, excepting this last circumstance of her lying down, denotes approaching tetanus. Reverting, therefore, to the recent docking, I began to consider the symptoms as dependent on this operation, aggravated by her having travelled so sharply, and almost all the way in hard rain, which might have chilled the spinal column, and produced these effects.

Under this erroneous impression, I took the liberty to amputate an inch and a half more of the caudal extremity, according to the old prescribed custom, being not quite clear in my view of the case, and willing to adopt any suggestion that was not injurious. The depletives were persisted in, and warm fomentations and clysters kept up without much intermission. The bowels are open, but we have not seen her stale; and the wetness of the litter prevents our judging on that point.

May 4th.—Every way much worse. A veterinary friend concurs with me that it is tetanus; the locked jaw and the twitching of the membrana nictitans alone are wanting to make it a perfect case: but resulting, as we imagine, from docking, it may affect the hind extremities principally at first. She stands almost immovable, with the muscles hard and rigid.

May 6th.—From appearances I observed this morning, and the absence of the proper tetanic symptoms, I determined to investigate the feet most thoroughly, for I began to suspect, both being now alike, that it might be acute founder. Accordingly, with the greatest difficulty, and not without throwing her down, we contrived to pare out one foot; the nailing had been so safe, and the sole looked so white and firm, that as we removed slice after slice, I could hardly believe there was any ground for our search; but at length a slight redness was perceivable; it increased, and shortly after it became palpable that the highest degree of inflammation was existing in this apparently sound and perfect organ. To such an extent had it proceeded, that we could procure no blood from the congested vessels: the podophyllous structure was destroyed in the front of the foot, and separated from the keraphylla. The other foot was found to be nearly in as bad a condition, under the same fair outside appearance.

In a few hours after they were pared out and dressed, the fungous portion of the podophylla burst out at the coronets in both feet, like a piece of iron sponge, followed by a red ichorous discharge. I now gave up all thoughts of saving the mare, and ordered her to be destroyed the next morning; however, she died in the night, in great pain. I secured both feet, and some idea may be formed of her sufferings, and the extent of mischief, when I was enabled to extract one of the feet at once from the hoof, so much was the attachment broken up throughout. The other required but little maceration.

It is most likely that from the first time I saw her little assistance could have been rendered; but the various circumstances I have mentioned contributed to obscure the truth. The exciting cause can only be guessed at. She was a fine mare, and they said a remarkably fast trotter; and as to the feet they were in figure and strength all that could appear desirable.

PRICES—BANK PAPER—RATE OF TAXATION.

(From the Appendix to the Third Report of the Commons' Committee on Agriculture.)

Abstract of a return, showing the crops and price of wheat from 1815 to 1835 inclusive; the amount, decrease, and increase, of bank paper for the same period; and depreciation of British produce; the population: official value of manufactures, &c.

Date.	Price of Wheat per Quarter.	Total of Bank of England and Country Bank Paper.	Average Price of Wheat for Periods of Five Years.
	s. d.	£	s. d.
1815	64 4	45,897,000	93 4½
1816	75 10	41,670,000	
1817	94 9	44,172,000	
1818	84 1	47,727,000	
1819	73 0	41,358,948	
1820	65 7	35,129,405	71 7½
1821	54 5	28,699,500	
1822	43 2	26,744,260	
1823	51 9	28,403,412	
1824	62 0	31,434,748	
1825	65 6	34,021,738	55 6½
1826	56 11	31,827,700	
1827	56 9½	31,497,780	
1828	60 5	31,161,336	
1829	66 3	27,781,834	
1830	64 3	28,094,850	60 11
1831	66 4	26,370,324	
1832	58 8	.. ..	
1833	52 11	.. ..	
1834	46 2	.. ..	
1835	39 5½	.. ..	52 8½

Date.	Rate of Depreciation of British Produce and Manufactures, as shown by the difference between the Official Value and the Declared Value.	Amount of Taxes for Great Britain.	Equivalent. Ounces of Gold.	Of Taxes. Quarters of Wheat.
		£		
1815	.. 214 ..	70,888,772	4,621,228	24,572,718
1816	.. 207 ..	61,876,600	17,345,575	17,876,951
1817	.. 185 ..	51,532,317	14,173,267	12,137,697
1818	.. 195 ..	53,075,001	14,423,490	14,049,973
1819	.. 187 ..	52,301,107	.. ..	15,968,662
1820	.. 179 ..	54,488,169	15,201,330	17,981,827
1821	.. 150 ..	55,123,403	15,480,810	22,154,391
1822	.. 148 ..	54,374,638	15,209,441	27,385,787
1823	.. 143 ..	52,948,542	14,701,040	22,122,200
1824	.. 141 ..	53,270,028	14,877,513	18,871,199
1825	.. 146 ..	52,919,260	14,770,230	17,206,716
1826	.. 137 ..	50,526,152	14,154,213	19,366,407
1827	.. 127 ..	50,356,111	14,125,303	19,374,590
1828	.. 125 ..	52,418,055	14,660,951	18,897,467
1829	.. 114 ..	51,029,729	14,267,523	16,758,294
1830	.. 110 ..	50,414,927	14,832,446	17,019,752
1831	.. 109 ..	46,444,515	13,056,191	15,297,754
1832	.. 100 ..	47,092,334	13,227,580	17,558,492
1833	.. .. ..	45,271,326	.. ..	.. ..
1834	.. .. ..	.. ..	.. ..	.. ..
1835	.. .. ..	.. ..	.. ..	.. ..

TABLE, SHOWING THAT WAR IN ITSELF HAS NO TENDENCY TO RAISE PRICES.

Wheat per quarter.			
1688 to 1697	..	10 years' war	.. 42s. 6¾d.
1698 — 1701	..	4 years' peace	.. 46 0
1702 — 1712	..	11 years' war	.. 39 11
1713 — 1739	..	27 years' peace	.. 35 10
1740 — 1748	..	9 years' war	.. 31 9
1749 — 1754	..	6 years' peace	.. 34 6
1755 — 1762	..	8 years' war	.. 37 1½
1763 — 1774	..	12 years' peace	.. 48 11½
1775 — 1782	..	8 years' war	.. 46 6½
1783 — 1729	..	10 years' peace	.. 50 2½

## BRAMPTON AGRICULTURAL MEETING AND CATTLE SHOW.

The agricultural meeting and cattle show took place at Brampton on Monday, October 24, and owing to various causes was not so well attended as on former occasions. One obvious reason for this deficiency was, that far advanced as we are in Autumn, yet there is a considerable quantity of corn to be gathered in from the land, and therefore the neighbouring farmers took advantage of the fine weather on Monday morning to advance the harvest. Another reason may be this—the, what to us appears, impolitic and short-sighted policy—of awarding premiums to those animals only which are bred in the district, and which consequently offers no encouragement to superior breeds being introduced from a distance. The show of horses was good, both as regards numbers and quality, but we cannot say so much for any description of cattle.

The judges appointed for the occasion were Mr. Moses, of Tarn House; Mr. Tweddle, of the Barn; Mr. Brown, of the Red Hills; and Mr. Brown, of Angus Well.

After the show a party of gentlemen sat down to a plentiful dinner at the Howard's Arms Inn, John Ramshay, Esq., steward to the Earl of Carlisle, in the chair, supported by R. Ferguson, Esq., of Harker; H. Farrer, Esq., of Scaley Hall; G. H. Hewitt, Esq., of Burghby-Sands; Joseph Dixon, Esq., Broadwath; T. James, Esq., Brampton; W. Carrick, Esq., coroner for the district, &c.

After the usual loyal toasts, the CHAIRMAN said—the next toast upon my list, gentlemen, is the successful candidates, but as the judges are at present out of the room, for the purpose of making the awards, we must skip over that toast, and by way of filling up the omission I will give success to the Brampton Cattle Show. Certainly the exhibition this day has not been so numerous as I could have wished, but perhaps next year the Committee will provide some better arrangements with regard to short-horned stock, which will ensure a greater attendance, and consequently more competition.

The CHAIRMAN then gave in succession, the Members for the City of Carlisle, and the Earl of Carlisle. The Secretary then read the list of premiums, as follows:—

### Short-horned Bulls above 2 years old—Premium 5l 5s.

- 1.—William Bell, Highberries.—Only one entry, (premium.)

### Short-horned Bulls under 2 years old—Premium 2l 2s.

- 3.—Daniel Sewell, Newlands (premium).
- 2.—Joseph Dixon, Broadwath.

### Galloway Bulls above 2 years old—Premium 5l 5s.

- 4.—Thomas Wannop, Holmgate, (premium).
- 5.—Thomas Warwick, Warwick.
- 6.—William Pig, Mosside.

### Galloway Bulls under 2 years old—Premium 2l 2s.

- 7.—John Johnstone, Pedderhill, (premium).
- 8.—Thomas Warwick, Warwick.
- 9.—Robert Holiday, Stonehouse.
- 10.—James Thompson, Cumrew.
- 11.—John Hodgson, Newtown.

### Short-horned Heifers, 2 years old, in calf—Premium 3l 3s.

- 14.—Joseph Dixon, Broadwath, (premium).
- 12.—Thomas Bell, Townfoot.
- 13.—John Thompson, Coathill.
- 15.—Matthew Brown, Low Cummersdale.

### Galloway Heifers, 2 years old, in calf—Premium 3l 3s.

- 24.—William Gilkerson, Beaumont, (premium).
- 16.—John Johnstone, Pedderhill.
- 17.—Thomas Warwick, Warwick.
- 18.—Robert Holiday, Stonehouse.
- 19.—John Hodgson, Abbey Bridge-end.
- 20.—Ditto, ditto.
- 21.—William Richardson, Cumcatch.
- 22.—Thomas Knott, Sandhouse.
- 23.—Ditto, ditto.

### Galloway Bullocks under 2 years old—Premium 3l 3s.

- 28.—John Hetherington, Milton-hill, (premium).
- 25.—William Gilkerson, Beaumont.
- 26.—James Burgh, Ryeclouse.
- 27.—John Thompson, Coathill.
- 29.—William Graham, Lawstown.

### Galloway Heifers under 2 years old—Premium 3l 3s.

- 31.—John Johnstone, Pedderhill, (premium).
- 30.—John Thompson, Coathill.

### Short-horned Heifers under 2 years old—Premium 3l 3s.

- 33.—H. A. Aglionby, Esq., M.P., Newbiggin Hall, (premium).
- 32.—Matthew Brown, Low Cummersdale.
- 34.—Joseph Dixon, Broadwath.

### Leicester Tups of any age—Premium 2l 2s.

- 38.—William Bell, Highberries, (premium).
- 35.—Mr. Farrer, Scaley Hall.
- 36.—H. A. Aglionby, Esq., Newbiggin Hall.
- 37.—William Saitler, Hill.
- 39.—Thomas Mitchell, Stanwix.
- 40.—James Thompson, Cumrew.
- 41.—Ditto, ditto.
- 42.—Thomas Bell, Townfoot.

### Cheviot Tups of any age—Premium 1l 1s.

- 43.—Joseph Ewart, Crookburn, (premium).
- 44.—Ditto, ditto.

### Black-faced Tups of any age—Premium 1l 1s.

- 45.—James Dobson, Gelstone, (premium).
- 46.—John Atkinson, Breckonthwaite.

### Pen of three Leicester Gimmers—Premium 2l 2s.

- 48.—William Bell, Highberries, (premium).
- 47.—Mr. Farrer, Scaley Hall.
- 49.—W. S. Denton, Haraby.

### Pen of four Cheviot Ewe Hogs—Premium 2l 2s.

- 50.—Thomas Bell, Townfoot, (premium).
- 51.—Joseph Ewart, Crookburn.
- 52.—James Dobson, Gelstone.
- 53.—Christopher Parker, Brampton.
- 54.—Christopher Tweddle, Barns.

### Three Leicester Ewes—Premium 1l 1s.

- 57.—William Bell, Highberries, (premium).
- 55.—H. A. Aglionby, Esq., M.P., Newbiggin Hall.
- 56.—Mr. Farrer, Scaley Hall.
- 58.—Thomas Bell, Townfoot.
- 59.—John Hodgson, Newtown.

### Three Cheviot Ewes—Premium 1l 1s.

- 60.—Joseph Ewart, Crookburn, (premium).
- 61.—Jacob Moses, Tarnhouse.
- 62.—James Dobson, Gelstone.

### Three Black-faced Ewes—Premium 1l 1s.

- 63.—Jacob Moses, Tarnhouse, (premium).
- 64.—James Dobson, Gelstone.

### Draught Colt or Filly 2 years old—Premium 2l 2s.

- 66.—William Bell, Highberries, (premium).
- 65.—Robert Wilkin, Guards.
- 67.—John Atkinson, Breckonthwaite.

### Coaching Colt or Filly 2 years old—Premium 2l 2s.

- 71.—James Fawcett, Scaley Castle, (premium).
- 68.—Thomas Little, Watchcross.
- 69.—Thomas Wannop, Holmgate.
- 70.—Ditto, ditto.

### Draught Mares—Premium 2l 2s.

- 72.—Robert Wilkin, Guards, (premium).
- 73.—Christopher Tweddle, Barns.

### Boars—Premium 1l 1s.

- 74.—James Hetherington, Tithington, (premium).
- 75.—Joseph Ewart, Crookburn.
- 76.—John Hodgson, Newtown.

### Sows—Premium 1l 1s.

- 77.—Joseph Ewart, Crookburn, (premium.)

The CHAIRMAN then said—Gentlemen, if you will allow me, I will now propose the health of the successful candidates; and as there is one who seems to

have had a more than ordinary share of good luck, I think we cannot do better than to couple his name with the toast. I mean Mr. Bell, of Highberries. (*Great applause*).

Mr. BELL said he could assure the company that his success had been far above his most sanguine expectations; he felt great pleasure in witnessing such exhibitions as they had beheld that day, because they tended to the improvement of stock and the cultivation of soil in a proportionate degree, and the reclaiming, as a matter of course, of many unpromising and unprolific mosses; and though he did not expect, nor would it be expedient, to grow corn upon Tindall Fell or Christonbury Craggs, still he hoped that, by means of the encouragement held out by this and similar societies, and by the industry and enterprise of the agricultural population, to find that the morass would yield to the cultivating hand of man, and nature put on her smiling universal robe. (*Loud cheering*.)

The CHAIRMAN: Gentlemen, I think we ought to drink the unsuccessful candidates, coupling with that toast the health of Mr. Farrer, who, although he has made many entries, I am sorry to say has not succeeded in one.

Mr. FARRER said, I must stand up, Gentlemen, to return thanks, because I suppose no other one will stand up in the name of the unsuccessful candidates, and I have therefore the honour of standing alone. I am sorry that we can only say, with reference to our stock, that we must endeavour to amend as far as we can, and try if we can better ourselves. We have been favoured by what we have seen to-day, particularly with regard to the Galloway stock, and I wish you success at all your future meetings, and that you may have a better show of short-horns next year; and if we cannot exceed our competitors, I only wish that next year we may equal them. (*Cheers*.) I have, in conclusion, a favour to beg, that of proposing the health of the judges, those gentlemen who have done us the kindness to attend here this day, to take upon themselves the important and onerous office of judges this day; for although we may have plenty of cash, and abundance of stock shown without judges we could not make the awards (*Cheers*.)

Mr. MOSES returned thanks.

The CHAIRMAN then said, Gentlemen, we ought not, on this occasion, to forget similar societies in this county, and if you allow me, I will propose success to the Carlisle Society, coupling with it the name of Mr. Hewit, of Burgh, who is a prominent member of that Society.—(*Drank with three times three*.)

Mr. Hewit said, I thank you, Gentlemen, for the kind manner in which you have been pleased to drink my health; yet, although my name has been coupled with the Carlisle District Society, I am convinced there are others present to whom the honour is more justly due; and although my attachment may be strong towards the Carlisle district, it extends to the Penrith branch, to this society, to that in the western part of the county, and to every agricultural association in the kingdom; for I look upon this as a ground on which all agriculturists ought to unite, in order to make every possible improvement. Agriculture has certainly been for a considerable time in a very depressed state, but not being a croaker I will not dilate further upon that matter; yet nevertheless I am not such a croaker as some, and now, when agriculture wears a brighter face, I should wish us to use our utmost exertions to improve and make the very best use of our stock and crop. And if such societies as this are properly encouraged, there is not a doubt that improvements must take place; for although some of the good farmers, my neighbours, are somewhat prejudiced against meetings of this sort, the younger farmers will no doubt enter them with spirit, will compete and show good stock, so that when they come to manage their father's farms, they will have a good breed to begin with. It certainly requires a farmer to use his utmost endeavours, at this day, to improve agriculture as well as all the other produce of industry; for we know that if the manufacturers of this country were not to take opinions, inquire as to the newest discoveries, and to use the best materials of trade, if they did not do so the commerce

of this country would not flourish in the way it has done. But although Englishmen have been called a nation of shopkeepers, they may be proud of it; it is but a small spot of land, yet it contains many individuals who are in themselves a treasure of infinite worth, and so long as they are usefully employed, so long will England be considered the greatest nation upon the face of the globe. Agriculture may in some measure make the same improvements as have been made in commerce, if agriculturists make the same exertions as commercial men; and I doubt not that agricultural societies will improve the situation of the farmers in the same way, so that they may arrive at a pitch of perfection and prosperity, almost equal to the former times. The small farmers here are a most industrious, worthy race of men, and it is owing to that, perhaps, that they have stood out prosperous against the great difficulties which they have had to encounter. I hope we shall all experience the benefit of these societies, especially with reference to male animals. The cow raises but one animal in the year, a bull raises a great many; and such societies as this are particularly calculated to improve the breed of animals, by introducing the best male animals into the district. I would also take this opportunity of alluding to the usual language of the newspapers, with respect to agricultural matters, although there are two editors present, but I hope they will forgive me; they do not, I think, enquire into all the particulars of the state of our markets, but content themselves with merely saying that it was a good market, good stock sold well, and bad stock hap an indifferent demand. Now let us endeavour to get more of the good stock, and banish the bad stock from the land. Good stock improves the finances of the farmer; it is much more desirable to look upon, and it is good every way. With regard to horses, I would say, that perhaps we have fallen into the error of looking at the lowest priced horses. Perhaps I am not so learned in agriculture as many present, yet although my opinion may not be so valuable as some, I will yield to none in attachment to it, for I am sure agriculture is in its infancy. Nothing is known of it, I am convinced, which will be known of it fifty years hence. I am sure that there is no class who possess more integrity, and none more worthy to be encouraged, than the Cumberland farmer. I have seen here this day a very excellent show of Galloway cattle and sheep, and the short-horned breed, although not numerous, was good. I am glad to see such a good company here, and I am sorry to say the only want I perceive here, although it may be considered presumption in me to say so, and though it may give offence, is, that the great land-owners are not present amongst us. (*Loud applause*.) And although I am not intimately acquainted with you, yet I feel equal respect to every farmer, let him be who he may; but there is no individual who could not do something towards promoting the success of this and similar societies, by exerting themselves to increase a knowledge of a better order of things.

The CHAIRMAN then proposed the health of Mr. Blamire, the title commissioner, a great friend of the farmer, and although the duties of his new situation called upon him to preside in another place, still he had the success of the society at heart, and had he been at home would certainly have been there that day.

Mr. FERGUSON then proposed the health of the Chairman, in a bumper toast, with three times three, and one cheer more.

The CHAIRMAN said, I feel exceedingly grateful for the kindness you have shown to me. I feel a deep interest, perhaps as much as any man, in the welfare of agriculture; and although I cannot address you so well, nor make so many pertinent observations as my friend Mr. Hewit, yet no one has the interest of the farmer more at heart than myself; and I am sorry that being disappointed in getting a better chairman, I am compelled to take the chair myself, and although this meeting has not been so numerously attended, yet some kinds of stock have been superior. Some time ago we had a discussion as to the propriety of joining some other societies in the county, and it was suggested that the Carlisle and Brampton societies might be united, the Carlisle having the spring show, and the Brampton the au-

turn one; but for some cause or other the union did not take place, which I sincerely regret, because I think it might be of advantage to both societies. I know it is not for me to dictate to other societies, but I merely mention this, throwing it out as a hint for future consideration.

The CHAIRMAN next proposed the health of Mr. Joseph Dixon, and success to the Inglewood Fox Hounds.

Mr. Dixon returned thanks, and in conclusion proposed the Magistracy of the County, connecting with that toast the name of Mr. Ferguson, who returned thanks.

The healths of the Editors of the Carlisle papers were next drank, and Mr. Steel and Mr. H Brooke severally acknowledged the compliment.

A number of excellent songs were sung, and the harmony of the evening was protracted until a late hour.

## WEST CUMBERLAND AGRICULTURAL SOCIETY.

The annual show of this society took place at Egremont on Friday, Oct. 27; the weather was highly favourable, but the attendance upon the ground was not so great as at the show in 1835. Amongst the company in the field were the Earl of Lonsdale, the hon. George O'Callaghan, Thos. Irwin, Esq., High Sheriff of the county, Edward Stanley, Esq., M.P., Milham Hartley, Esq., Rev. H. Lowther, Thos. Hartley, Esq., Joseph Burrow, Esq., Isaac Littledale, Esq., Charles Parker, Esq., of Park Nook, Rev. W. H. Leech, W. B. Jones, Esq., of Drigg Hall, Richard Barker, Esq., John Bowman, Esq., Hodyoad, &c. &c.

The show of horses was both numerous and good, especially the cart and coaching kinds, which were superior to those exhibited at any previous show of the society. The show of bulls was limited, and in quality not equal to those of last year. The show of cross bred heifers was very poor; but that of cows in calf and in milk could scarcely be excelled. The show of pigs was both numerous and good, and a few really prime white-faced and mountain rams were exhibited.

The exhibition closed about two o'clock, and the company almost immediately afterwards left the field. Shortly after that hour a party of 150 sat down to dinner in a large tent contiguous to the King's Arms inn, under the presidency of Thomas Hartley, Esq., of Gillfoot, Joseph Burrow, Esq., of Carleton Hall, acting as Vice.

After the usual loyal toasts,

The CHAIRMAN said they had been honoured with the presence of the High Sheriff; he begged to propose his health, and desired that it might be drank with three times three.

THOMAS IRWIN, Esq., of Calder Abbey, High Sheriff of the county, returned thanks.

The CHAIRMAN next gave the Lord Lieutenant of the county, and though he had proposed him in that high character he would digress a little, and give him as a most excellent landlord. (*Cheers.*)

The CHAIRMAN in rising to propose the next toast said he thought he might safely congratulate the meeting on the excellence of the stock which they had that day seen. The show was perhaps not numerous, but upon the whole he had no doubt they were progressing, certainly improving, in all kinds of stock. On this point he thought all would agree with him. On the other side of the county—at Penrith, a few weeks ago, there was such a show as had never before been seen in the North of England, and certainly never equalled in Cumberland; yet he believed he had good authority for saying that there was stock to be found in West Cumberland very little inferior to those of their neighbours in the East. If those around them would but send their cattle to Egremont he thought there would not be much room to boast of superiority in other parts of the county, but they seemed afraid to send least they should not obtain prizes. This was not the way to arrive at perfection. (*Cheers.*) Next year he hoped the show would be

more numerous, and he had not the least doubt but it would be better. In conclusion Mr. Hartley proposed "Success to the West Cumberland Agricultural Association." (*Drank with three times three.*)

The CHAIRMAN said the next toast he had to propose was the Members for West Cumberland, and he was extremely glad to see them. (*Drank with three times three, and one cheer more.*)

EDWARD STANLEY, Esq., M.P., begged for the kindness with which they had received the last toast proposed from the chair, and the manner in which they had drunk his health, in conjunction with the hon. colleague, to return them his grateful thanks and acknowledgements. Feeling as he did warmly interested for the success and welfare of the Association, he could not but congratulate them upon the respectable exhibition of stock which they had that day witnessed; and although some gentlemen, whom he knew to be well wishers to the society, might laugh at and joke them upon their long horns, and a variety of different breeds of cattle, (all said, he had no doubt, in the most perfect good humour,) which were to be seen in the West of Cumberland; still he thought it ought to be remembered that other societies of a similar kind had had precedence of theirs in point of existence: theirs was only in its infancy: and it had had—and still had, many difficulties to struggle through; yet notwithstanding those disadvantages, he thought from the show of stock that day brought into the field that they might flatter themselves, from the zeal and industry which characterised the agriculturists of West Cumberland, that the society would annually increase in consequence and importance. It would thus prove a growing benefit to the agricultural interest, the prosperity of which must always contribute in an eminent degree to the comfort, contentment, and happiness of the community at large. He begged strongly to impress upon their attention, that it was necessary, in order to uphold and render agricultural associations generally beneficial, a great deal must depend upon the cordial support and the union and co-operation of all parties, without which its effects could not be rendered so extensively useful as its most sanguine friends were anxious to see realised. (*Heard.*)

SAMUEL IRTON, Esq., M.P., was extremely glad to hear from the Chairman that the stock in West Cumberland was improving, and that the show was superior to that of last year. Every description of commerce had for some time been in the highest state of prosperity, and it always struck him that that prosperity could not but in the long run extend to the landed interest. He had not been disappointed, for the change he had anticipated had taken place. There was one thing to which he was desirous of directing the attention of the farmers, namely, their paying more attention, if possible, to the breeding of stock than to the cultivation of land for the produce of grain. The prosperity of agriculture must in a great measure depend upon manufacturing industry, for he considered it next to impossible for agriculture to flourish whilst the other languished; and it was indispensable to the prosperity of manufactures that corn should not be at a high price, otherwise we could not expect the home manufacturer to meet the manufacturers of another country where the necessaries of life were cheap. If corn should reach what might be called a high price, and maintain it, the consequence would be the abolition of the Corn Laws, and with them would be swept away a large class of agriculturists and farmers, the most useful class of persons of whom the country could boast. Whatever might be the result of this, in the process of time, he had no doubt but the first effect would be to change the relative positions of a large class of the community. Mr. Irton concluded by thanking the company for their attention, and assured them that as long as their interests were confided to him, along with his honourable colleague, he would attend and watch over them with all the zeal and ability in his power. (*Cheers.*)

The CHAIRMAN then begged to propose the health of two gentlemen who had been warm promoters of the association and had done much for it—Mr. Browne and Mr. Benn. (*Drank with three times three.*)

Mr. BENN expressed himself much obliged for the



very flattering manner in which his health had been drank, but regretted the absence of Mr. Browne, who, had he been present, would have said enough for them both. He was particularly glad to see so good a show of stock as they had that day witnessed, especially after what Mr. Browne had said at Penrith about their cross-bred heifers, which, by the way, were that day both few and poor, the farmers he presumed had been deterred from bringing them owing to what Mr. Browne had said. To show that the strange breed which Mr. Browne had described did really exist, he might state that at the last spring show at Cockermonth, just as he was entering the town, he chanced to meet a bull whose surpassing beauty attracted his attention, and on inquiry he found it belonged to Mr. Browne, and was one of the exact breed of animals that gentleman had described at Penrith. (*Laughter, and cries of it had been one of Gwordy's breed*) He had read Mr. Browne's speech with some degree of surprise, and either he had fallen into error relative to the stock in West Cumberland, or the reporters had done him injustice; or it might be that Mr. Browne intended his description to apply to his own stock only, and in that case he was willing to confess he was pretty near the truth. He would be extremely sorry to speak desparagingly of their stock, for he was quite satisfied that the breeds of different kinds of cattle were improved as well as in East Cumberland. (*Cheers*). He would beg to call their attention to the superior stock which had sprung from the late Mr. Curwen's breed of short-horns as well in East Cumberland as in West, and which he was sure could not be excelled. Let them also look at Mr. Hartley's, Mr. Burrow's, and many others, which could scarcely be equalled. He need not call their attention to the cattle exhibited by Mr. Hartley that day—not for premiums but merely for show; and a finer specimen could perhaps no where be met with. (*Hear, hear*.) He questioned with all their boasts, that they could show better or even as good, in East Cumberland. (*Cheers*).—Mr. B. concluded by thanking the company for the honour they had done him, and sat down amidst loud cheering from all parts of the tent.

The CHAIRMAN remarked that they would be anxious to hear the names of the successful competitors, and as they had just been put into his hands he would read them. He then read as follows:—

<i>Cart Colt or Filly, rising four years old.</i>		£ s.
1	Wilson Fisher, Cleator Moor.....	4 0
2	John Fisher, Skelsmere .....	2 0
3	Richard Barker, Woodbank .....	1 0
<i>Coaching Colt or Filly, rising five years.</i>		
1	William Stable, Millom .....	4 0
2	John Levens, Irton .....	2 0
<i>Short-horned Heifers, pure-bred.</i>		
1	Wm. Benn, Middleton Place.....	4 0
2	Wm. Holliday, Calder Bridge .....	2 0
<i>Long-horned Heifers, thorough-bred.</i>		
1	James Jackson, Pallafat.....	4 0
2	John Taylor, Gosforth.....	2 0
<i>Cross-bred Heifers, two years old.</i>		
1	Wm. Bragg, Esq., Egremont.....	4 0
2	Wm. Mossop, Catgill.....	2 0
<i>Mountain Rams.</i>		
1	John Dixon, Kirkland.....	2 10
2	John Thwaite, Blackenthwaite .....	1 10
3	Robert Briggs, Wasdale Head .....	1 0
<i>White-faced Rams.</i>		
1	Wm. Browne, Esq., Tallentire Hall.....	2 10
2	Do. Do. ....	1 10
<i>Boars.</i>		
1	Isaac Mawson, Gosforth .....	2 0
2	Stephen Hartley, Egremont .....	1 0
<i>Sows.</i>		
1	Wm. Holliday, Calder Bridge .....	2 0
2	Thomas Wilson, Snellings .....	1 0
<i>Cottager's Sows.</i>		
2	Thomas Hartley, Egremont.....	1 10
1	G. B. Williams, Egremont.....	0 10

*Short-eared Boars.—Bacon Curer's premium.* £ s.  
1 John Wilson, Kirkland Howe..... 2 0

*Short-eared Sows.—Bacon Curer's premium.*  
1 Isaac Mawson, Gosforth..... 2 0  
2 Stephen Hartley, Hale Mill..... 1 0

*Heifers in Calf or Milk.—Member's premium.*  
1 Wm. Benn, Middleton Place..... 5 0

*Short-horned Bulls; Sweepstakes, with the Society's premium of two pounds.*  
William Thompson, Ravenglass.

*Heifers or Cows in Calf or Milk, for Sweepstakes, with the Society's premium of two pounds.*  
Gilfred Hartley, Esq., Rose Hill.

*Draught Mare in Foal; Sweepstakes, with Society's premium of one pound.*  
John Ewart, Lorton.

*Breeding Sows, for Sweepstakes.*  
Thomas Crosthwaite, Rank End.

*Pen of Five White-faced Sheep—Sweepstakes.*  
M. N. Paumier, Esq. Ulcoats.

*Ten Fleeces of Wool—Sweepstakes.*  
William Dickinson, Mosses.... No competition.

*Fat Cow or Heifers for Sweepstakes, with the addition of Mr. J. Gunson's two pounds.*  
Gilfred Hartley, Esq., Rose Hill.

*Best Mangel Wurzel, for the premium.*  
William Holliday, Calder Bridge,..... 1 10

The CHAIRMAN said the next toast he had to propose was the health of the Judges—Mr. Bell and Mr. Fair. (3 times 3.)

Mr. FAIR begged to thank the company with the utmost sincerity for the honour they had done himself and Mr. Bell. He could assure them that it was difficult, as the chairman observed, to give satisfaction. Prejudice was not easy to overcome, but they had done their best, and he might inform them that the decisions they had come to were unanimous. He had no hesitation in saying that the cattle shown that day were better than those of the same description exhibited last year. He had attended many agricultural shows, particularly in Liverpool and those of the Highland Society, and they were not only fit for those places, but were as fine a lot of animals as he ever saw together at any time or in any place. (*Cheers*.)

The CHAIRMAN then gave the successful candidates, which was drunk with 3 times 3.

Mr. HOLLIDAY of Calder Bridge, briefly returned thanks as one of the successful candidates; and assured the company that the society had his best wishes for its success.

Mr. ISAAC MAWSON also returned thanks.

The CHAIRMAN was very happy to inform the meeting that he had found a President for next year, who, he was quite sure, would do all in his power to forward the interests of the society. The gentleman he had made choice of was Mr. Stanley, of Ponsonby Hall. (*Cheers*.) The health of the President elect was afterwards proposed and drunk with 3 times 3.

Mr. STANLEY said in again thanking them for drinking his health he begged at once to assure them, without making a speech upon the subject, that if it were their desire that he should occupy the chair at the next meeting, he should consider it his duty to act in obedience to their wishes, and therefore he would accept the office. He begged to take that opportunity to draw their attention to a subject connected with the association, and to make a proposition which, if favourably received, would give him much pleasure. He alluded to the absence of any premium being offered by the society for the superior cultivation and good management of land, making every allowance for the alteration which ought to be paid to the production of stock, and which was perhaps of paramount importance: and if it met with their approbation he proposed to give not as a county member, but simply as chairman and a landed proprietor in the neighbourhood, the sum of ten

guineas as a prize to be contended for next year. (*Cheers.*)

The CHAIRMAN begged to give success to the Association, and a happy meeting next year.

This was the last toast previous to the chair being vacated, and the chief part of the gentlemen at the head of the tables almost immediately quitted the tent. The meeting throughout was well conducted; the proceedings betrayed great good humour and spirit, and went off with much *eclat*.

### KIRKALDY AGRICULTURAL SOCIETY.

The Autumnal Meeting of this Society was held on Friday, Oct. 14. The show of stock on the occasion was of a very superior description—such, indeed, as in the opinion of the judges, had never before been paralleled in the district, and even in one or two respects to outstrip the recent exhibition at Perth. This was particularly the case in respect of horses. Some excellent specimens of cattle were also present; and an ox of the Fife breed attracted great attention, as one of the most perfect specimens of the class which had yet been produced. The judges also expressed themselves much pleased with a Teeswater bull calf, belonging to Mr. Boswell, of Balmutto. The specimens of turnips and potatoes sent by the Earl of Rothes, were likewise greatly admired.

The following is a list of the prizes which were awarded:—

For the best six calves, stots, or queys, Fife breed—Robert Hutchison, Fosterton, 1*l*.

For the best bull calf ditto—W. Veitch, Grange, 10*s*.

For the best six-year-olds, stots or queys, ditto—James Prentice, Kilrie, 1*l*.

For the best pair of two-year-old stots, ditto—ditto, 1*l*.

For the best pair of two-year-old queys, ditto—J. Kilgour, Bowhouse, 1*l*.

For the best pair of three-year-old stots, ditto—Andrew Watt, Balburton, 1*l*.

For the best foal for agricultural purposes, to be weaned four weeks previous to show, to be bred by the exhibitor, or a member of the society—George Beveridge, Orrock, 1*l*.

For the best year-old colt, bred by ditto, ditto—George Prentice, Bankhead, 1*l*.

For the best two-year-old gelding, ditto, ditto—Alexander Scott, Bowhill, 1*l*.

For the best three-year old ditto, ditto, ditto—Walter Veitch, Grange, 1*l*.

For the best year-old filly, ditto, ditto—Robert Hutchison, Fosterton, 1*l*.

For the best two-year-old ditto, ditto, ditto—James Prentice, Kilrie, 1*l*.

For the best three-year-old ditto, ditto, ditto—Henry Paterson, Balmule, 1*l*. 10*s*.

For the best ten quarters seed wheat—George Lewis, Boghillie, 1*l*.

#### SWEEPSTAKES, HALF A SOVEREIGN EACH.

For the best cow of the Fife breed—Robert Hutchison.

For the best cow of any breed—John Stocks.

For the best year-old bull, Fife breed—Robert Dowie.

For the best bull calf, Fife breed—Walter Veitch.

For the best Teeswater quey calf—Thomas Stocks.

For the best pair of four-year-old stots of any breed—Loughborough.

For the best pair of three-year-old stots of any breed—Andrew Watt.

For the best four calves of any breed—J. Liddell.

For the best two-year-old queys, Teeswater breed—James Aitken.

For the best foal for agricultural purposes, to be weaned four weeks previous to the show—George Beveridge.

For the best colt or filly for agricultural purposes, foaled in 1835—George Prentice, jun.

For the best gelding or filly for agricultural purposes, foaled in 1834—Alexander Scott.

For the best gelding or filly for ditto, foaled in 1833—Walter Veitch.

For the best colt or filly for road or field, foaled in 1835—Robert Lindsay.

For the best colt or filly for ditto, foaled in 1834—Henry Balfour.

For the best quarter of white wheat for seed—George Lewis.

For the best quarter of Hunter's wheat for seed—James Kinnimonth.

For the best quarter of Chevalie barley for malting—Walter Veitch.

For the best quarter of potatoe oats—Andrew Watt.

For the best quarter of Hopetoun oats—ditto.

For the best three acres of Swedish turnips—Walter Veitch. The seed was supplied by Mr. James Tough, seedsman, Kirkaldy.

For the best eight acres of potatoes—George Prentice, jun.

For the best turkey cooked for table—James Bogie.

For the best bacon ham cooked for table—Thomas Ronald.

After the exhibition, upwards of a hundred gentlemen connected with the association sat down to an excellent dinner which had been prepared for the occasion in the Town-Hall. Lord Loughborough acted as Chairman, and Messrs. Prentice, Haig, and Veitch as croupiers.

After the customary preliminary toasts, the CHAIRMAN again rose—He said, he had now to direct their attention to the toast of the evening, and he did so with no small degree of pride and gratification when he recollected that he had himself aided in the formation of the Society. The present very numerous and highly respectable attendance was the best proof of their opinion of the advantages which were to be derived from such associations. These advantages were manifold, and not confined by any means to those individuals immediately engaged in the business of competition, but extended themselves in a multitude of directions. By such meetings as the present they not only cultivated friendly relations with each other but were always learning something new either in the way of exploding old errors or acquiring useful truths. Their exhibition of to-day he felt particular gratification in stating shewed them to be advancing rapidly on the road of improvement. Their stock was not only, generally speaking, most decidedly of a very superior description, but in respect of horses they could boast of having even outstripped in the race of competition the Highland Society itself. (*Great cheers.*) It was also most gratifying to mark the very distinguished place which Fife stock occupied at the recent exhibition at Perth. (*Cheers.*) He begged to propose the Kirkaldy Agricultural Society, and success to it.

Mr. FERGUS, M.P., had the agreeable duty allotted to him of proposing the health of their noble Preses, (*Great cheering.*) He felt that it was an honour which they ought to pay him, not so much in his character of Preses, ably as he supported that character—not so much for the mere patronage which he extended to the society, as for his able, zealous, and most laudable efforts in improving the agriculture of the district. He had set them a truly noble example in that respect, which already had done much good, and was destined, he trusted, to do still a great deal more. It was Lord Loughborough who first brought the thorough drainage system into practical working among them—that system which was operating like magic in enhancing the crops wherever it had been adopted. The agricultural profession had certainly before it a rich field of improvement, and those who pursued it in a proper spirit, he thought could not fail, while they were doing a vast service to the country, to reap a substantial golden reward.

Lord LOUGHBOROUGH was afraid that he scarcely merited the very flattering compliment just paid him. If, while seeking his own advantage, however, he had done any thing deserving of their approbation, he had certainly been amply compensated for his labours, and he assured them that one of the compensations which he valued not the least, was the numerous friendships he had formed in the course of his agricultural pursuits.

The CHAIRMAN next proposed "The health of Mr. Ferguson, the first President of the Society." (*Tremendous cheering.*)

Mr. FERGUSON said, he felt it no easy matter to make adequate acknowledgments to them for the very flattering manner in which his name had been received. He knew of no more agreeable description of meetings than those where landlords and tenants met together unalloyed, as this meeting was in the present case, and as such meetings always ought to be, by even the most distant approach to party politics. (*Cheers.*) He looked to the happiest and most important consequences arising from such associations as the present, and he felt, he he said, rather sorry on their account that he himself happened to be so far advanced in years. (*Laughter.*) *Much as had been done within the time of his recollection in the improvement of agriculture, still the act seemed but yet in its infancy, and every day was bringing forth something fresh to gratify and astonish them. He trusted much to the hearty and enlightened co-operation of landlord and tenant in yet conferring upon agriculture the highest degree of prosperity.*

The CHAIRMAN said, that there were among them several distinguished strangers, some of the first judges of stock in the country. In particular, he would name Messrs. Watson, Dick, and Tod. He proposed to devote a bumper to the strangers. (*Drunk with all the honours.*)

Mr. WATSON, of Keilor, returned thanks. That day's exhibition was one of which they might well feel proud. The judges had had, he could assure them, a most arduous duty to perform, and, where the difference was so small between the merits of the successful and unsuccessful candidates, he would not at all be astonished if many should feel sore at the award given. Already their show of horses had been pronounced, upon the best authority, to be decidedly superior to that which lately took place at Perth. He would almost go as far in regard to the show of cattle. But there was one remark he would make, and that was, that he expected to have seen more character in the Fife stock. Although there were among them many excellent, and some first-rate animals, still he thought there was an absence of a general distinctive character to mark the breed. If he was asked what ought to be the character of the Fife ox, he would point to the animal that day exhibited in the street as what he might term a perfect specimen. That ox, if not the first or the second, ranked at all events as the third best ox at Perth of any breed. (*Cheers.*)

The CHAIRMAN proposed "the health of Mr. R. Hutchison," who had a two-fold claim of distinction. First, as being at the head of the successful competitors, and, secondly, as holding the office of Secretary of the Association, the duties of which, he need not say, how well he discharged. (*Drunk with great enthusiasm.*)

Mr. HUTCHISON, in returning thanks, took occasion to observe, that as the society had now got a nest egg of 100*l.*, it was not unlikely that the amount of the premiums for next year would be somewhat increased.

Mr. VEITCH proposed the "Unsuccessful Competitors."

Lord LOUGHBOROUGH made some jocular remarks in reply.

After some other toasts had been given, The CHAIRMAN proposed "The manufacturing interests of the country." He said that how much soever depressed agriculture had been, he felt convinced that but for our manufacturing prosperity it would have been much worse. He had just sold two fat stots to the Messrs. Hutchison for 100*l.*, and although feeding to such an extent was not regarded as the most profitable department, still he had no objections to go on with it at all, were he assured of always obtaining a like price, which, without good trade, however, and its consequence, good wages to the labouring classes, was not to be expected.

Provost LANDALE said, in reply, that he considered the trade of the country at present in as good and healthy a state as ever it had been in. He hoped it would long continue such. At the same time he hesitated not to affirm that commercial prosperity was much

aided by such societies as the present, which by stimulating agricultural improvement, lessened the price of provisions, which constituted the main staple of manufacturing industry. Certainly agriculture had no cause to regret the prosperity of manufactures. He recollected in his boyhood that such was the state of matters that the farmers were accustomed bringing in their barley to the Kirkaldy distillery on the backs of horses. He need not say how much, in consequence no doubt in a great measure of our commercial prosperity, our means of internal communication have become improved. Both agriculturists and commercialists, he thought, had great reason to thank God that they were in a much better state than their forefathers.

Mr. AINSLIE rose to propose as a toast, "Increase to steam power ashore and afloat." This was a toast which at the first blush might appear to have little to do with agriculture. He trusted, however, that it would not be difficult to make it appear that, upon the fostering of inventions and enterprises connected with steam power, the very best interests of British agriculture were immediately dependent. When it was called to mind that it was in and through the manifold applications of steam that British commerce and British manufactures had in recent times attained to such an unprecedented magnitude—a magnitude which had, he might truly affirm, determined the character of the country, and constituted the prime mover of her prosperity, then it would at once be seen how much they had been and still were indebted to steam—that power which had stimulated production of every sort, and which though not as yet applied directly to any great extent to agriculture, had indirectly been most extensively and efficiently operative in promoting its advancement. But they might be well assured that however much steam had accomplished, it had not by any means exhausted its energies. How much, he would ask, did there remain for steam still to do in the way of facilitating intercourse! He shortly noticed its effects on intercommunication and the vast consequences which in this way it was calculated to produce. But even, looking at Fife alone, with her large extent of coast, he conceived that by means of steam power a spirited proprietary might do a great deal in aid of the agricultural interest. He could not, for example, see the propriety of sending our agricultural produce in small boats to be reshipped in Leith roads, when it might with much more safety and at a great deal less expense be directly exported from the county. The shipping and transhipping of cattle too, had to be done at a period of the year, when the weather was generally the most boisterous. Were the Fife proprietary to take up the subject with energy they might soon have their produce directly shipped from their own coast, and he felt assured that, so far as the landlord was concerned, with whom he was more particularly concerned, that no exertion would be wanting on his part, to aid in so desirable an undertaking. (*Cheers.*)

Mr. GEORGE PRENTICE gave the Landlords of Fife, to which Mr. Ferguson of Raith replied.

The Chairman next proposed "the Tenantry of Fife."

Mr. ROBERT BALLINGALL, in name of the Tenantry returned thanks. The legislature of the country lately informed us that they had appointed a committee to inquire into agricultural distress. But that body could come to no definite opinion upon the subject, and consequently did not even report upon it. But at the same time gave the advice that each proprietor and tenant must work out his own difficulty. Conceiving that the tenantry of Fife still labor under some disabilities, he should make a few brief remarks upon a local usage, and one which deserved the undivided attention of both proprietor and tenant in this county; that is, the unnecessary waste of farming capital, consequent upon the present mode of letting land. It might not be generally known amongst the tenantry, that a very important alteration had been effected in the law of Hypothec during the last session of Parliament. Formerly the landlord had it in his power to compel grain dealers to refund payment for all grain sold under sequestration, unless exposed in a stock market.

This was now altered, and as a body of farmers and grain dealers, he conceived they were entitled to return thanks to the proprietors for having conceded the point. But he should turn the attention of the meeting to another portion of the law of Hypothec—that is the straw, to which the proprietor has an undoubted right at the expiry of the lease. But surely no lengthened illustration was necessary to point out the bad effects of the system. When he mentioned the fact, that there was one farm in the county where the Hypothec valuation of the straw had actually been ascertained to be removed from the ground five times in nineteen years. A few possessions had undergone the same course process four during the same period; a still greater number three times; and during his own experience he had known one case where the straw was removed twice in seven years, and another twice in thirteen years, and they all knew that when a tenant was shifted the straw was removed once in nineteen years. Was it reasonable to expect a thriving tenant under a system like this. He humbly conceived that the legitimate source of land rent must flow from that portion of agricultural produce, which is surplus and left over paying the cost price of production and the maintenance of the farmer's family and his stock; therefore, any system or practice such as that he had attempted to describe must fall as a direct tax upon the industry and capital of the occupier, by diverting a large proportion of labour into an unprofitable channel, in collecting manure from distant parts of the country, to supply the want of the straw, of which the farm never ought to have been deprived. He referred to the practice of East Lothian, Berwickshire, and Roxburghshire, where no such tampering with the fertility of the soil was known. There, although a tenant was changed, the sinews of agriculture were not removed with them as in the county of Fife. He would sum up these remarks by two short questions for the consideration of proprietor and tenant. First—Whether it is likely that the rental of the proprietor is to be best supported from an acre of ground in high condition, or from an acre in the last stage of exhaustion? Second, Whether the tenant is justified in offering more for an acre of ground with manure lying within 500 yards of it, or for the same acre when the dunghill is removed five miles from it? He sincerely hoped that many of those proprietors who give their support in every respect to agriculture by their precepts, would also operate by their examples.

Sir R. C. FERGUSON, on rising to propose the health of Mr. Coke, of Norfolk, and the agriculturists of England, was received with tremendous applause. After passing a high eulogium on Mr. Coke, the General proceeded to remark on the Fife breed of cattle, contending from its frequent crossings that it had completely lost its character as an original breed. He stated what Mr. Coke had done under somewhat singular circumstances, and that was to import an entirely new breed. The original in Suffolk was one of the worst possible. He first tried to supplant them by a breed from Hereford, but these he found would not do. He at length attempted the Devons, and completely succeeded, and these cattle were now established all over Norfolk, every body approving of them. It was objected that the climate of Fife would not answer for the Devonshire breed, but this he felt perfectly assured was a complete mistake, as Norfolk was a colder and more exposed and boisterous county in every respect than Fife.

Mr. WATSON, of Keilor, subsequently spoke in explanation. Although he certainly considered the Fife breed to be awaiting in a proper distinctive character, still he was far from denying that there were not a class of animals in Fife highly deserving of being propagated.

Mr. FERGUSON, of Raith, in proposing "The healths of the Croupiers," took occasion to bring under the notice of the meeting the scheme of Mr. Lewis, of Boghillie, for instituting an experimental farm. He mentioned that he understood Mr. Lewis wished his plan not to be brought immediately under discussion by

the Highland Society, but the consideration of it to be delayed until next annual meeting, when a better opportunity would thus be afforded for arriving at a matured judgment on the subject.

The CHAIRMAN proposed "The health of Professor Dick."

Mr. DICK returned thanks, and strongly urged upon the attention of the meeting the propriety of only breeding from stock of the first quality, in respect of health, spirit, and symmetry, as not only the best means of obtaining good animals, but as the best prophylactic which could be employed.

Mr. AINSIE proposed "The Highland and Agricultural Society of Scotland." They had heard many and just observations on what had been done for Fife by means of her Agricultural Associations, and these, he had no doubt, would always look with a filial regard to the Highland Society, not only as the parent from whom they had derived their original existence, but as the kind and fostering parent who still cared for them. (*Cheers.*) Were he called upon to give an example of the good which the Highland Society had directly effected for the agriculture of the country, he did not know that he could fix upon any more emphatic instance than that of a district he had lately travelled over. He alluded to the formerly wild and dreary country of Badenoch, lying one thousand feet above the level of the sea, and which one might have supposed was destined forever to continue under the dominion of its native heath. Even that country, however, he was happy to say, was now in a very high state of cultivation, yielding rich crops, and these, he felt something like shame to confess, were in a more forward state than those of many parts of their own county.

A number of other toasts were given in the course of the evening, and some excellent songs sung. Altogether the proceedings were conducted in the best possible spirit, and in such a manner as must redound not a little to the credit of the institution.

## AGRICULTURAL MUSEUM OF THE UNIVERSITY OF EDINBURGH.

We have been sincerely gratified by an inspection of this establishment, which is now in the course of being formed, in consequence of a grant made by the authority of Government from the funds of the Board of the Trustees, for founding an agricultural museum in connection with the Chair of Agriculture. It is intended to embrace a collection of the various objects suited for instruction in the science and practice of agriculture, as models of the implements of the farm—of machines having relation to the arts immediately connected with agriculture—of rural erections, as farm buildings, vegetable productions, soils, and the like. Amongst the many objects which this important institution embraces, there is one which has, in a peculiar manner, attracted our attention. This is a collection of paintings illustrative of the domestic animals of the country. Nothing can be more happy than the execution of this design. The animals are portraits of large size, the sheep being the size of life, and the oxen about half the natural size, all selected with vast attention from the best specimens of the kingdom, and from the stocks of the most distinguished breeders, as Mr. Buckley, Mr. Ellman, Mr. Coke of Holkham, Lord Talbot, and others. Amongst the animals we see specimens of the short and long horned breeds of cattle, of the North Devon, of the Hereford, of the Suffolk-dun; and fine examples of our native breeds, the Ayrshire, the Galloway, and the West Highland. Of the sheep there is a vast variety from the wild races of Exmoor and Dartmoor, to the black-faced heath sheep of our own mountains. We observed the Merino, the Dor-

set, the Norfolk, the Wiltshire, the Romney Marsh, the Old Lincoln, and, amongst the more cultivated breeds, splendid examples of the Cheviot, the South-down, and the New Leicester. It is impossible for us to speak too highly of the manner in which these paintings have been executed. They have been all painted by one artist, Mr. Shiels of the Scottish Academy, who has been engaged for several years in this difficult task. They stand, beyond a question, in the first rank of this class of paintings. We are surprised with the variety of character which the figures present, and yet we see that they are all portraits rigidly faithful, representing, even to the smallest lock of wool, the external character of the animals. Upon this, indeed, was to depend all their value, as the subject of useful study, and the artist has wisely, and with good taste, chosen to abstain from everything which should interfere with the true end of the collection. So far are the paintings from suffering from this fidelity, that it constitutes their great charm, and affords a striking contrast to the caricatures of animals which we sometimes see, in which the painter, attempting to make the animals better than they are, destroys all individuality of character and harmony of parts. In the present case there are no mistaken attempts of this kind. The animals are represented without the least exaggeration as they were seen in the fields in their stalls, and on their native rocks and heath. Grouped together, they have all the pleasing variety of a splendid fancy picture, with the fidelity of representation of individual subjects of natural history. Looking to the interest of such a collection to agriculturists, its uses in illustrating the effects of art in modifying the characters of these valuable animals, and as affording the means of beneficial instruction in a primary branch of rural economy, we trust that nothing will interrupt the progress of this collection. We understand that it is not half completed, and that a yet greater number of paintings is required to complete the series of domestic animals of the country.—*Kelso Mail.*

## ON THE EPIDEMIC INFLUENZA OF 1836.

By MR. JOSEPH BEESON OF AMERSHAM.

(From the *Veterinarian.*)

This epidemic disorder has for several months past been very prevalent in this neighbourhood: I had however, eight cases of precisely the same nature occur to me from last November to January.

The principal features of the disease have been, inflammation and tumefaction about the eyes, with considerable effusion running down the cheeks. The head drooping, mouth hot and dry, the animal off his feed; in short there has been considerable fever. The flanks were tucked up, the pulse quickened more or less, the legs swelled, and in some cases very painful to the touch. A general stiffness of the whole muscular system prevailed, accompanied by extreme weakness; a great disinclination to turn in a stall, or go through a doorway, i. e. unless it was large and the threshold low. If relief was not obtained at the onset, every symptom rapidly assumed a more intense character. There was usually increased fever or inflammation of the membranes of the brain in particular; the nervous influence was more or less suspended; the animal quite staggered in his attempt to move, and now and then fell down.

With regard to treatment, I have found direct de-

pletive measures have generally done little or no good. I have, however, in some cases, where febrile symptoms have run high, or where there has been an evident determination to any particular organ, bled moderately. I have given the fever ball, consisting of half an ounce each of nitre and cream of tartar, and one drachm of emetic tartar twice or thrice a-day, varying the dose a little as circumstances might require. I have used setons or rowels, either behind the ears or in the breast. In cases of a milder form, I have considered it of consequence to keep the kidneys, at least alive to their natural function, and perhaps to exert them a little by combining with the fever ball a more direct diuretic. Purging in every instance that has occurred to me, so far from doing any good, has been productive of irreparable injury. The patient rapidly sinks under its operation, every symptom is aggravated, extreme prostration of strength ensues, the animal eats nothing, and, if the purgation is not immediately checked, the patient inevitably dies.

The horse should be kept in an airy but not a cold situation. Good hand-rubbing to his legs, or, at least, his usual dressing every day will be useful, and he should be well clothed up; cleanliness and the general comfort of the animal should be particularly attended to. His food should consist of bran mashes with some oats, green meat if it can be procured, or the best meadow hay. In desperate cases, I allow him to be indulged with any thing that he will eat, as I am quite sure that he will not take enough of any kind of food to hurt him, and in such cases I have given gruel, or linseed tea, or both; and in others bran tea instead of water.

I will give you the particulars of a few cases, which I trust may not be thought altogether uninteresting.

### CASE I.

On the 6th of November ult., I was sent for to attend a horse at strawyard, belonging to Mr. Jones of this town. I found him lying down in the yard, and those around me said I should never get him up again. With a little management we raised him, and put him into a loose box. His eyes were considerably swelled and discharging; his head hung down; the pulse was sixty and full; the respiration tolerably tranquil. It was, however, with the greatest difficulty that he could stand; he reeled about, and required several men to balance him while I was about him. Here was evident determination to the brain, and that to an intense degree. I bled him until a sensible effect was produced on the pulse: I then gave him a mild dose of physic, five drachms of aloes; inserted setons behind the ears, and ordered thick gruel to drink, as he refused his food.

7th.—His bowels mildly acted upon by the physic. He is not quite so well as yesterday. Rub in some blistering ointment behind the ears, in the course of the cervical vertebræ, and allow him plenty of gruel, and as thick as he can drink it, which if he refuses to drink must be carefully horned down while he is lying.

8th.—Purges briskly, every symptom aggravated; staggers more if possible; pulse seventy; sleeps a great deal. It is with difficulty he can get up, and as he cannot command himself it is dangerous to be very near him. He cannot stand many minutes, but reels backwards and forwards, and falls down. Give him gruel as yesterday—keep under him a good bed, in order that he may not bruise himself, &c.

9th.—Continues to purge; he is sinking fast: I begin to think he is purging too much, but which before had been my principal hope. I gave him two scruples of opium, half an ounce of gum myrrh, two

drachms of ginger, and one ounce of prepared chalk in some starch, twice a-day, and ordered him some starch in his gruel to-day.

10th.—Does not purge so much; in other respects he is about the same as yesterday. Continue medicine as yesterday, and give him his gruel as before.

11th.—Purging ceased, but my patient is no better; his respiration is more hurried; pulse accelerated. It is with extreme difficulty that he can get up, and does not stand many minutes;—he lies stretched out, and sleeps a great deal. If he is enticed to take a mouthful of food, he falls asleep with it in his mouth. No medicine to-day.

12th.—No better; I quite despair of his recovery. I gave him two drachms each of ginger and gentian, and half an ounce of gum myrrh in some gruel, and the nursing department was attended to as before. This plan of treatment was continued with very little deviation till the 15th, when he died.

*Examination after death.*—Extreme congestion of the membranes of the brain; about an ounce of blood had escaped and coagulated around the pineal gland, and which was intermingled with some small blood-vessels belonging to that part; the lungs were considerably inflamed, but the abdominal viscera were quite healthy.

#### CASE II.

A remarkably strong and round carcassed pony, the property of Mr. Cook, of Chenies, was observed to be ill on the 13th of December. His eyes were inflamed and closed, and discharged down his cheeks; pulse 70; very much tucked up, but his breathing not quickened; his head hanging down, but every now and then tossed up, and shaking. He quite reels as he moves, and does not feed; he had already been bled. I inserted a rowel in his breast, gave him two drachms each of aloes, nitre, and cream of tartar, and one drachm of emetic tartar in a ball; and prescribed for him three drachms each of nitre, cream of tartar, and one drachm of emetic tartar, to be given in a ball morning and evening.

14th.—He is about the same as yesterday; his dung quite pultaceous; eats nothing, but drinks his gruel well:—continue medicine; and give him his gruel.

15th.—Purges briskly; he is about the same as yesterday; pulse 70; breathing quiet; discontinue medicine until the purging has ceased: give him his gruel.

16th.—Continues to purge, does not eat, but drinks his thick gruel well. He appears rather more lively to-day but in other respects about the same.

17th.—Does not purge to-day, feeds a little and is better. The fever medicine was again resumed and continued until the 21st, by which time he was quite well, except that he was, of course, a little weak yet, from his illness.

Mr. Cook had two cart horses and two colts affected at the same time, of the same disorder; but they were milder cases; and all did well.

#### CASE III.

This was a horse, the property of Mr. Tallent, a surgeon of this town; it was lying at strawyard, at Mr. Cook's, the proprietor of the horses just spoken of.

On the 20th of January I was sent for, and found him in precisely the same state as the pony; I put him into a box and clothed him up, and gave him a fever ball, consisting of two oz. each nitre and cream of tartar, and one drachm of emetic tartar morning and evening.

21st.—Much the same, except that his breathing is a little quickened, and I heard him cough once while I was with him, the peculiar character of which plainly indicated that there was some mischief

about the chest. I inserted a rowel in his breast, and continued the fever medicine; the pulse was 70, and somewhat feeble; there was great prostration of strength, and the horse staggered at every motion; I therefore did not bleed him. At about ten o'clock at night a messenger came to say that the patient was much worse; that he was down and could not get up. I immediately went, and found the account to be too true; he was down and stretched out on his side; respiration was very slow and stertorous; his pulse was about the same; he started at the slightest touch or noise about him. I got him up, but it was with difficulty we could keep him on his legs; he reeled very much, and required several men to balance him. Here also is evident determination to the brain. I bled him, but he could not bear to lose more than seven pints. I gave him a purgative of five drachms of aloes, and inserted setons behind his ears. The moment I had completed this he fell down. I made him as comfortable as I could, and left him under the care of an attendant for the night.

22d.—His physic purges a little: his respiration is rather quicker; he cannot stand, and he is decidedly worse than when I left him last night. Horn down some thick gruel frequently to-day.

23d.—Purges briskly; every symptom aggravated, and he is sinking fast; pulse 84; respiration much disturbed; extremities cold, and perspiration breaking in patches: unless speedily relieved he must die. Give him immediately two scruples of opium, two drachms each of ginger and gentian, and half an ounce of gum myrrh; and repeat it every eight hours.

24th.—I was quite surprised this morning to see my patient up and looking out at a little window, and at the same time eating a bit of hay. I was informed by Mr. Cook that he began to amend after taking the medicine; and at ten o'clock last night, when Mr. C. went out to look at him before going to bed, the horse was up and feeding. He has eaten a tolerable quantity of hay in the night; continue his medicine morning and evening.

25.—Much better; has fed pretty well; can command himself, and turns about firm and well; give him his ball without the opium, morning and evening.

26th.—Still improving; give him daily three drachms each of ginger and gentian, and half an ounce of gum myrrh; and move the setons.

28th.—Going on well: continue his medicine; increase his allowance of oats.

Feb. 3d.—Quite well, except his loss of condition. Discontinue medicine; let him be led out every day. From this time nothing more was done, except that he was kept in for a few weeks, in order that his strength might be thoroughly established before turning him out again. From this time I have not given any kind of aperient in cases of influenza, but, on the contrary, if purging has come on from metastasis of the disorder, or any other cause, I have found the patient always worse, and I have immediately endeavoured to check the purging by giving the ball as in the last case: I have also found, that in protracted cases, after the febrile symptoms are abated, supposing the several functions of the lungs, bowels, kidneys, &c. are going on well, and although the pulse may yet continue high, that the vegetable tonics may not only be safely but very advantageously given. There often remains a staggering gait, from nervous weakness; an appetite, though much improved, yet not good; this condition of the patient is particularly and beneficially influenced by the invigorating system.

I am by no means an advocate for the general adoption of the cordial plan of treatment, after inflammatory disorders; but having put the several

animal functions right, I am satisfied that nature, under proper management, will restore strength, condition, &c. But influenza is, in my opinion, an exception to this rule.

I find that influenza is by no means peculiar to any age, condition, or situation; it has occurred in the straw-yard, at grass, and to stabled horses in good condition and bad, at rest and at work. That it arises from atmospheric influence there is no doubt.

In some cases I have found the skin much surfeited, either, I have imagined, from cold affusions or from the stormy state of the weather. Some cases presented little lumps on the skin from the size of the segment of a pea to that of a large nut; others having a thick scurf, which, together with the hair, peeled off as from the effect of a mild blister; this has happened to the saddle and collar places, &c., &c., and particularly the thighs.

This is the result of what has taken place in my practice of influenza. I have given you the several cases just as they occurred, good or bad, in order that they might be compared with the opinions of other practitioners, of which you may or will be in possession; and I shall be gratified if haply some useful inferences may be deduced therefrom. The first horse continued to purge a long time, and sunk under its operation; in the second case, although the patient did well at last, he purged too much, and would have been better without it: the third case is too striking to need any farther comment. I have had a great many cases of influenza, but have not lost a single case since the first.

## THE NEW POOR LAW.

EVIDENCE TAKEN BEFORE COMMITTEE OF THE HOUSE OF COMMONS ON AGRICULTURAL DISTRESS.

Mr. T. NEVE, Kent.—Is the amount of the poor rates the same now as it was three years ago?—No, they are lessened considerably.

Has the poor law amendment bill been carried into effect in your neighbourhood?—It has, a few months only.

Not a sufficient period to enable you to judge of the effect of it?—I have no doubt it will tend very much to lessen the rates.

Mr. J. CRAMP, Kent.—Has the poor law amendment bill been in operation in your neighbourhood?—It has just come into operation in the parish in which I reside; the other nine parishes have been united more than a twelvemonth, but in our parish we have only been united about a fortnight.

Can you state whether in those nine parishes there has been any considerable reduction in the rates?—There has been a considerable reduction in some of the parishes where the parish was very much neglected, but I think in other parishes there has been but little reduction, and I do not contemplate that there will be but a very trifling reduction indeed.

That is where the parish was previously well managed?—I think the old law was sufficient where it was well carried into execution; I speak from very positive knowledge, because I superintended the parish in which I live for many years, and created work of every description, and by doing so drove away the profligate and those who were imposing upon the parish, and by that means I think the rates were reduced to 4s. in the pound upon a moderate rental.

Then you had adopted in your parish very much the principles of the present law?—So much so that Sir Francis Head said that he could see no improvement to be made except in the bill of fare in the house.

Sir Francis Head was the assistant poor law commissioner?—He was.

C. C. PARKER, Esq., Essex.—Are the poor rates heavy in your part of Essex?—Not very.

Has the poor law amendment bill come into operation there?—It has, and very beneficially.

Has there been a considerable reduction of the rates in consequence?—We have not yet been long enough at work to create a considerable reduction of rates by the effect of the new poor law bill, but the poor rates have been decreasing by the better management of the farmers the last three or four years.

What has been the effect upon the character of the labourers of the introduction of this new system of poor laws?—I can hardly give a decided opinion upon that point, it has been so short a time in operation; but an increased attention to oblige their masters is now visible.

Mr. JAMES FISON, Norfolk.—What is the amount of poor rate in your neighbourhood?—It varies so much that I cannot give an answer to the question.

Has there been any reduction in it lately?—Yes, in many parishes, through the operation of the new poor law.

It has been brought into operation there?—Yes, partially; indeed the very idea of its coming into operation has operated very favourably, and produced a lowering in the rates.

Has the operation of the new poor law had any effect upon the character of the labourers?—Decidedly; a very excellent effect.

Has it improved the moral condition of the labourer, as well as his physical condition?—I have no doubt of it; I have a great deal to do with the lower orders; I have interested myself much in promoting emigration, and had very great difficulty in inducing them to stir for some time; they would not leave their parishes though there were several of them living, a man and his wife and eight children, upon 10s a week, but as soon as this poor law began to operate I had no difficulty; I and my brother have succeeded so that we have assisted upwards of 200 to remove from our neighbourhood into Yorkshire, where they are doing exceedingly well.

Have you had accounts of them lately?—Yes.

And they are satisfied with their circumstances?—Yes, they are very thankful that we interfered for them, and assisted them.

Mr. WILLIAM COX, Buckinghamshire.—Has the new poor law come into operation in your neighbourhood?—Yes.

Is your parish included in any union?—Yes.

How long has it been so?—Since Midsummer.

Has that had an advantageous effect upon the conduct of the labourers?—To a certain extent it has benefited the rate payer. I think it has worked well with the idle and the profligate.

The farmer now expects to get, and does get, a fair day's work from the labourer for the wages he gives him?—Yes.

Which he did not do before the new poor law came into operation?—No.

In your part of the country you were not very favourably disposed to the poor law?—I was not. Nevertheless you think it has done some good?—I think it has worked well where there has been

sympathy manifested by the guardians and by the employers. I know many parishes where indiscriminately they pay the man without a family and the man with a family the same wages; and I do the same, but I give all the men that have large families the best task-work, so that by working more hours in the day they can earn a little more money.

You are now of opinion that it is likely to lower the rates, and to have a good moral effect upon the lazy and indolent?—It will work well where there is a little sympathy manifested.

Do not you think that now there is every disposition to give aid to the new poor law bill, provided it is not pressed forward with precipitate haste?—I think there are many persons that were averse to it are now friendly to it. I think that, generally speaking, it is a favourite arrangement.

What should you say has been the case with respect to the treatment of the old people; have their allowances been diminished under the new system?—Yes, they have.

Is not that considered a matter of regret?—It is, by the rate payers themselves.

Supposing a rise of provisions to take place from unfavourable seasons, ought there not to be a greatly increased attention paid to that circumstance, to prevent the new poor law becoming a measure of great severity?—Yes.

Must not that severity apply particularly not only to the very old but to the very young?—Yes.

That is, it would be applied to the poorest and weakest part of the community?—Yes, but they have their remedy; they can go into the workhouse if they like: they will always give them an order, if they are dissatisfied with the pay, to go to the workhouse.

Are they not well clothed and well fed in the workhouse?—Yes, but they have a prejudice against it.

Do you know any persons that have been removed from a cottage of their own to a workhouse?—I know several that have petitioned their neighbours and friends to assist them to keep out of the workhouse.

Is there a great inclination in your neighbourhood to emigrate to America or to other countries?—I think that has a little subsided.

Sooner than go to the workhouse they will use every exertion to remain in their cottage?—Yes. The least allowance now is 4s 6d for a man and his wife out of the workhouse, for old persons.

That rests with the guardians?—Yes.

And the guardians are chosen out of the most respectable inhabitants of the parish?—Yes.

NOVEL AND IMPORTANT USE OF AMMONIA OR BRINE.—The thanks of the Society of Arts were lately voted to a Mr. Webster, of Ipswich, for a statement of the effect produced on potatoes by immersion in ammoniacal water, or in brine. If potatoes are immersed for four or five days in ammoniated water, containing an ounce of the common liquor ammonia to a pint of water, they will on removal, be found to have their vegetative principle greatly checked, or altogether destroyed, so that they may be preserved throughout the year without the least deterioration of their general qualities. The temporary action of the ammonia in no way affects the potatoe beyond that of destroying its power of growth; if, however, any change is produced, it is rather beneficial than

otherwise, somewhat improving the appearance and flavour of inferior potatoes, and giving them a meanness they did not possess. The transient nature of the application removes any suspicion of injury from the material employed, and it is all lost by evaporation, so that not a trace remains behind; nor could the most fastidious ever detect that the potatoes had been immersed in ammonia, so volatile is its nature, so perfect its escape. The exportation of potatoes to foreign climates, chiefly within the tropics, is an object of importance; and for the comfort of sailors, there is nothing in the way of diet greater than the luxury of a potatoe with their salt food. As a means of prolonging their enjoyments, and adding to the healthful diet of a sea life, this mode may be adopted with advantage. The expense of immersion is very trifling, and they subsequently require to be placed in an airy situation to dry. Potatoes so treated have been used after ten months' keeping in a warm kitchen closet, and were found to be perfectly good. If the potatoes, instead of being removed in five days, are continued in the ammoniacal water for three weeks, the potatoe becomes tough, and shrivelled, while in the liquor, and when dried by exposure to the air, assumes quite a new form; it appears consolidated, and its qualities are greatly lost, for on boiling it assumes the appearance of sage, or starch, yet still firm, and retaining its form; if used in its dry and uncooked state it has a mealy flavour, and the properties of corn. There is no chemical change effected on the potatoe, but merely a mechanical consolidation and extraction of moisture: for precisely the same effect may be produced by immersing potatoes in strong solution of salt and water, taking care to remove by subsequent ablution the whole of the salt, and this requires some time, and repeated changes of waters.

## ON THE USE OF BONE MANURE.

(FROM A CORRESPONDENT.)

With respect to bones, I am the occupier of about a thousand acres of land chiefly a lime-stone turnip soil, and our district, nearly the whole of which is arable, and farmed under a four or five field course of husbandry, that is, a fourth or fifth of the whole extent of country is prepared for turnips, and with a very few exceptions drilled with bones, varying in quantity from twelve to thirty bushels upon an acre. I have tried from fifteen to forty bushels: this I consider a great waste, as I have found from twenty to twenty-five bushels equally beneficial in effect; in a fair state of farming I think twenty bushels per acre is sufficient; and no farmer that knows his own interest will continue to use less. Our practise is to break up our one or two year old seeds for wheat, using about eight two-horse cart loads of manure per acre as long as it holds out, and if short, we apply five hundred weight of rape cake in lieu: we have some few farmers who use bones and manure mixed, that is, they apply six or seven cart loads of manure per acre for turnips, and drill in ten or twelve bushels of bones with the seed, but I hold the practice to be bad, as the means used are too light to keep the land up to the mark through its courses; by applying an additional ten bushels of bones, your land gets two dressings in every four or five years. I have other objections to the use of bones and manure together. I consider in very dry seasons the manure holds the land so open to the action of the sun and wind, that if the bones force



the seed to vegetate the plants frequently die under their influence. I hold the best practice in the use of bones for turnips is to work your land close with your harrows and rolls directly after the ploughs, not the next day, but the next hour, if possible; get your land fine and solid, or if I can convey my meaning by any stronger term, make it air tight, the nearer the bones are drilled to the surface, to be covered the better: after following these directions the greater chance you will have of being successful.

By pursuing this method I have been successful where others have failed, and I am convinced that every farmer who adopts the same plan will have reason to be satisfied with the result: this district thirty years ago was all waste or rabbit warrens; by the system of management I have laid down, I will fearlessly state it is not surpassed in its agricultural productions by any district of the same extent in the united kingdom.

## COMMUTATION OF TITHES.

(From the Bath Guardian.)

The importance of the new Act for the Commutation of Tithes, every person connected with agriculture will be willing to admit. It relieves farmers from the constant interference of the parson with their crops, and removes much of the harass, vexation, and annoyance, which the former mode of paying rectors and vicars produced. We are also glad that the tithe is to be commuted to a money payment, as it will greatly facilitate the reform of the administration of church revenues. A return was made to Parliament, through the Ecclesiastical Commissioners, of the value of church property, but we have every reason to know that it cannot be relied upon. A person who valued three livings for the incumbents has told us that he finds them returned greatly under the sum which he put on them. The commutation of the tithe will tell the real value. The actual amount of church revenues will be accurately ascertained, and this will, of course, much facilitate any future dealings with it that the Legislature may propose. Another advantage arising from the commutation of tithe will much benefit the farmer. At present he is the slave of the gentleman who occupies the parish sentry-box. He may have his tithe taken in kind: he may be harassed in its collection; or if justice is done to him, he is told to consider himself under obligations. In future he will be perfectly independent. The parson will have his dues ascertained; he will look upon them in the character of a chief rent; and if seasons require abatement in the farmer's payments, the farmer will be compelled to go to the landlord. The dependence on the parson of the parish is at an end. Again, the farmer will be able to take his premises upon an accurate knowledge of all the charges to which he will be subject. When, therefore, affairs go ill and prices fall so that he cannot make fair profits, he will know that it is to his landlord, and not to the Legislature, that he must look for relief. If the landlord is wise he will keep a good tenant; and if he refuses, the tenant must give up the property. But this power of making an accurate calculation of all charges will place the tenant in a more independent position with respect to the landlord than at present. He will know what to ask, and what he ought to have; and he will be able, if refused or if his request is complied with, to attribute the justice or injustice that is done to him to its right source.

## SUBSOIL PLOUGHING AND FREQUENT DRAINING.

Of late we have heard a good deal about "Steam Navigation applied to agriculture," nor has the power of steam been confined in an agricultural point of view to the ocean or the transit of fat cattle from one locality to another. The plough is now to be impelled by steam, and bogs are forthwith to be reclaimed by the scourings of ditches. In the meantime and until steam ploughing shall have become more common, we noticed with much pleasure a new feature in the agriculture of our country, reduced to practice on a limited scale near the Perth Depot, the Saturday after the grand cattle show. To those at all acquainted with the general principles of vegetation nothing need be said in favour of subsoil ploughing and frequent draining, as these advantages must be sufficiently obvious. On all tenacious soils of whatever quality, stirring by the subsoil plough must be of vast importance, in as much as that instrument opens the retentive mass and leaves a porous bed for the rich incumbent soil, through which the water will percolate, thus rendering the stirred subsoil liable to be fertilised from the descending rains and moisture, and forming a healthy and deeply extended range for the roots of plants. It is in the field a much safer process than the ordinary mode of spade trenching, whereby generally the subsoil (however injurious it may be in an unprepared state for vegetation,) is laid uppermost, this subsoil the plough only loosens, leaving future ploughings to take up and mix with the former fertilised soil, that upper portion of the loosened subsoil the farmer may judge proper to call into immediate service. The frequent draining plough supersedes the use of manual labour in cleaning out or cutting drains, and seems well adapted for that purpose. The resistance these instruments may meet with in the course of their operations, or the horse power that may be requisite, will vary according to the density or obduracy of subsoil and depth required. Suffice it to say, that each operation can be performed economically by the instruments exhibited by the justly celebrated Mr. Smith of Deanston, who, with genuine patriotism has put himself to much trouble and expense in forwarding an important point in agriculture. We saw his reaping machine also tried, a machine displaying much ingenuity—but the trial we saw of it, and the Clipping machine of Mr. Bell, near the Depot, was for both under favourable circumstances, and by no means calculated to bring out the merits of either, or to remove strong pre-existing prejudices. Those who wish to make a fair estimate of their merits should visit Deanston or Denboig, where they are at work. Reaping machines, when brought to the utmost perfection, will likely be inoperative where grain is completely lodged, and we consider that the true art of farming lies as much in striking the mean between the over-pampering and starving the soil, as any part of the profession, and should reaping machines become any thing like general, this point will be more attended to than it has been hitherto. The two ploughs, however, that we have noticed, are likely to advance the farmers interest to a much greater extent, than any improved mode of reaping—a process which, at the worst, only costs at an average about a half-sovereign per acre, while subsoil ploughing and frequent draining, either in the culture of grain or grass, will add twenty or more shillings to the annual value of each acre on many a farm.—Perth Courier.

Hops.—There is now exhibiting, at Norgate and Company's, a sample of hops grown by R. Crawshay, Esq. of Honingham Hall. We shall be rendering a service to Norfolk landowners, and to our intelligent farmers, by calling their attention to the very important fact, that this first attempt to cultivate hops in Norfolk has produced a quality unequalled by that of any county in the kingdom. We anticipate the period when the cultivation of hops will become general in Norfolk, and when the name of R. Crawshay, Esq., will be highly honoured as a benefactor to our agriculturists.—Norwich Mercury.

## REPLY TO MR. MILBURN.

TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR,—In your paper of Oct. 31st, I find a gentleman of the name of Milburn has thought proper not only to criticise my last Derbyshire Report, but also a letter from our old friend the "Lincolnshire Farmer," on whom I think he has been rather too severe. Now, the Farmer merely gave his opinion with regard to the destruction of the cabbage crop. He may be wrong—but it was quite natural when he found the plants covered with the cow-ladies, that he should suppose those animals were the cause of the destruction of those plants; as much so as others when they see the turnip plant covered with the smother-fly should state positively that it is the cause of the failure or destruction of the turnip crop. I do not suppose the "Lincolnshire Farmer" is so much acquainted with *entomology* as Mr. Milburn professes to be, for with regard to it he is evidently a paragon—he professes to be very well acquainted with the natural history of his "*doodly-cows*"—their mode of propagation—the number of "*doodly-calves*" they bring forth—as well as the form of the *calves*, which he states are *fat and lizard-like*—undoubtedly they are prevalent in Yorkshire, by his having paid so much attention to them. Again—he states—that the Lincolnshire Farmer has just as much right to *judge* that because he saw a couple of foxes in his meadow they were devouring his grass, as to say, that because he saw fifty lady-cows on a single cabbage, they were devouring his plant. Now, Sir, I think he had not as much right so to *judge*—he must have had ocular proof that the fox was a carnivorous animal by seeing him feast on his lambs; but he would not suppose that the *doodly-cows* were carnivorous animals from seeing them on his cabbage. No; he had a much greater *right to judge* that they were herbaceous animals from seeing them so situated. We certainly must thank Mr. Milburn for his information—for his perseverance—his industry—and also the minute attention he has paid to his *doodly-cows*—which by-the-bye many of us would rather pay to our *cow-ladies* or *lady-birds*.

Enough about *doodly cows* and their *calves*. I will now see how far Mr. Melburn's criticism of my statement (in the last Derbyshire report) of the failure of the turnip crop is correct. I fancy I shall prove to him that what I stated is not quite so erroneous as he supposes. First—I did not deny that the smotherfly fed on the turnip plants—but that those plants on which they did feed were unhealthy and that owing to their being so—to a want of vitality, incipient decomposition had taken place before the fly attacked them. He states that in Yorkshire, no decomposition in the plants could take place from the drought as the month of August was partly, and that of September entirely wet. Now I must inform Mr. Milburn that I stated that the drought with the *uncongeniality of the weather* was the cause of the unhealthy state of the plants. Every person is perfectly aware that the ground during the Summer was never perfectly saturated with moisture—there was not sufficient to support the turnip plant in a healthy state, consequently the cold winds, along with the cold rains promoted the decomposition of the plants—they were not sufficiently powerful—they had not sufficient vitality to prevent them from undergoing the laws of inorganic matter—that is decomposition. Dryness is not the most favourable state for decomposition—moisture with a certain degree of heat is required. The plants became unhealthy from a want of sufficient moisture, and when the rain did fall, the weakly plants, not having power

to resuscitate it rather tended to promote decomposition than otherwise.

He states that the flies commencing their ravages on any dry elevated situation is nothing new—but certainly does not prove my theory in the least. Now I say it does prove my theory, and that in the greatest degree. Why did the flies first attack the plants in such situations in preference to those on parts less elevated, and where the plants contain a greater quantity of juices? Evidently from this cause, that on the driest and most exposed situations there the plants first became diseased, even before they were attacked by the flies. If you examined the plants you found the leaves covered with a slimy mucus from incipient decomposition, and those plants so affected were invariably first attacked. Again—I stated that they the flies were not found on healthy plants. Mr. Milburn states that I should have said, "the plants which they have not attacked have had nothing to affect their growth, and are healthy and cover the ground *preventing the drought from penetrating*." Now a greater proof that the drought was the cause of the unhealthy state of the plants cannot be. Why were the isolated plants and those in the most elevated and exposed situations first attacked (which they invariably were)? Evidently, because they were so situated as to be most exposed to the drought and uncongenial weather, consequently they first became diseased, and then were attacked by the fly.

I stated that where the plants were thicker set so as to form a complete cover to the ground and exclude the rays of the sun—evaporation had gone on to a very small extent so that the plants had a sufficient degree of moisture to keep them in a healthy state, and there we found that the fly had done comparatively little damage. I would ask why did not the flies attack the plants situated in every part of the field without destruction which they undoubtedly would have done had they been the cause of the destruction. Why not attack the plants where they were thickly set as well as the isolated ones—why not attack those situated on the lower and more sheltered parts of the fields as well as those on the most elevated and most exposed situation? Evidently—because the plants in the latter situations were unhealthy, whilst those in the former were healthy not having been sufficiently affected by the drought and uncongenial weather. From my observations I have deduced the following inferences. That the drought with the uncongenial state of the weather has been the cause of the failure in the turnip crop. That the isolated plants and those on the most elevated and exposed situations being most affected by the drought, were the first which became unhealthy, and consequently were first attacked by the fly. That the flies attacked the unhealthy plants only. That the state of the weather which has been unfavourable to the turnip crop, has been favourable to the production of the flies. That, if the flies had not been more prevalent than in former years, we still should have had the same failure.

I remain Sir, your obedient servant,

S. P. G.

Mr. G. Spiak, of Aberdare, has favoured us with the following:—"To prevent Hares and Rabbits from barking trees, or topping young Scotch firs in plantations.—To one gallon of stale urine add one quart of powdered lime; one pint of foreign tar, warm the tar to mix with the above, then add as much fresh cow's dung as to bring it to the consistency of thin paint, and lay it on with a painter's brush.

## STABLE MANAGEMENT.

## BUSINESS OF THE GROOM.

The first object of consideration, under the present head, is the character of the groom; who should be a man of good sense, good temper, sober, honest, very industrious, and above all, proud of the appearance of the horses under his care. A material part of the business of a groom is very laborious—I allude to cleaning the horse; or what, in the phraseology of the professors of the art, is denominated *Strapping*. It is true, some have a more easy method of performing the operation in question, and yet they accomplish it equally well—generally better; and the same remark is applicable to all kinds of manual, (and indeed of mental) labour: one workman acquires a superior method to that which is seen in another. Yet, let it not be forgotten, that *strapping* a horse, in the hands of all is a laborious task; but its being well performed is as essential to the appearance of the horse as his food; nor can any horse, however fed, look well without it. Thorough good grooms are not always to be met with; and, indeed, whatever might be the abilities of the groom, I should frequently visit the stable. If all be correct—if the groom be worth keeping, he will be pleased with the visits of his master.

In the month of December, 1830, I happened to meet with an accident—I happened in fact to break my left collar bone, owing to a very sudden fall of my horse from placing his foot in a rabbit hole (hidden by long dead grass) when going very fast. In consequence I did not return home for a short period; during which my groom continued to purloin a considerable quantity of oats, carrots, and even hay; the illicit conveyance of a canal being very convenient, particularly when favoured by the length and darkness of the nights in the month of December.

The groom's first object should be to make himself acquainted with the temper, disposition, and constitution of the horses placed under his care, and vary his treatment accordingly.

The stable should be visited at six o'clock in the morning—in Summer rather earlier:—the first operation should be to rack and feed: after having, of course, ascertained that none of the horses is loose, cast, &c. The horse should have but little hay given him at a time, in order to induce him to eat it clean up—if a horse leaves or refuses good sweet hay, the cause of his refusal should be ascertained: it may have been fouled by cats or rats: and horses, particularly when well fed, are very nice in their food, and possess a very acute sense of smell. The hay may have been blown upon by other horses or cows: but if, upon examination, nothing of this appears, and the horse is in good health, it is tolerably evident he has been too freely supplied with hay, which should consequently be reduced.

The hay which is given him in the morning should be a quarter of his daily allowance; and, if a horse receives a proper quantity of oats,\* he will not eat more than ten pounds of hay per day; that is, generally speaking: horses must be varied in regard to hay, according to circumstances which will be pointed out as I proceed. If the hay be very dry, sprinkling it with water will make it more agreeable to the horse, and he will sooner eat it.

The horse should next be fed; that is, receive his corn, which should be one-fourth of a peck (supposing a peck to be his daily allowance). The oats should be of the best quality, should be sifted free from dust, and any extraneous substances (such as small stones, dirt, or rat's dung) carefully picked out. Clean the manger† well with a whisp of straw, and spread the oats in it, that the horse may not be able to gather too large a mouthful, and thus swallow them whole.

Horses should not be allowed to fill themselves in the morning, since they cannot go through severe or quick work with a distended stomach. When however the business of the day is over the horse may fill his belly, and he will rest better for it. All animals lie down to rest when they have completely satisfied the cravings of hunger.

As soon as the horses have received their corn, you should proceed to put the stable in order; for which purpose, you take the stable fork, (which must be used with great care, lest any of the horses should sustain injury), throw all dung off the litter, turning the driest of the litter under the manger; that part of the litter which has been too much stained for further use, you throw out with the dung. Every time you bring in fresh litter, let that which has been previously used be placed undermost.

Having turned up the litter, &c., clear away the dung and filth completely out of the stable as soon as possible; and could the elluvium which thence arises be dissipated at the same time, it could not be otherwise than beneficial to the health of the horses.

Proceed to unclot and clean the horses. The currycomb is the first instrument to be taken in hand, and it should be such a currycomb as is particularly applicable for the coat and skin of the horse. Some horses require very considerable application of the currycomb; others very little. Much of this will depend on the state of the horse, the time of the year, &c. Long coated horses and others just taken from grass, will require the free application of the currycomb, the teeth of which should be proportioned to the length,

\* The allowance of oats for horses must be governed by circumstances, such as the work the horse has to perform, his constitution, &c., all of which will be pointed out in the progress of this article.

† The manger should be well washed with soap and water once a week—cleanliness is conducive to the health of the horse in every respect; and he will eat his corn with a much better appetite if the manger be clean, and will derive more benefit from it also.

thickness, or foulness of the horse's coat. Horses that have been long in the stable, and which have been well groomed, will be generally found to have sleek, short, fine coats; and they will require little more use of the currycomb than merely to clean the brush.

Begin with the currycomb at the hind quarters on the near side. Proceed down the quarters, being careful to rub off all dried dung, but not to scratch the horse. The legs below the houghs should not be curried, unless there happen to be dried dung on the point of the hough, which may be loosened or removed with the currycomb: you will perceive that the comb will not operate properly on that part, and you must handle it very lightly. Proceed to the back, loins, flank, belly, shoulders, arms, neck, omitting no part to which the currycomb can be conveniently applied. You begin at the hind quarters and finish at the head—the latter, however, seldom requiring the application of the currycomb; nor indeed should spots thin of hair or tender be touched with it.

As soon as the near side is finished, you proceed to the other, where your left hand will be called into action; and after you have completed the off-side, wisp off the dust raised by the currycomb, and wisp those places in particular which were not touched by the currycomb. The wisp should be formed of hay or half worn straw—the former being preferable. Make the wisp about ten inches long, twisting it together till it is as thick as you can grasp. If the hay be harsh, sprinkle it with water, which will cause the dust to adhere to it, and it will also work more pleasantly. A good wisp will serve several times.

Taking the wisp in your right hand, place your left on the nose of the horse and begin to wisp his forehead above his eyes, the root of his ear, his cheek, and particularly his throat, rubbing rather hard if there be dried sweat and dust upon it. Change the wisp into the left hand, and resting your right against the most convenient part of the horse, begin at the top of the neck, and proceed to the shoulders, the under part of the neck, the bosom, especially between the fore legs, down the arms, knees, sinews, and fetlocks. Apply the wisp harder, where the use of the currycomb cannot be brought into operation; proceed to the withers, but do not fail to apply the wisp to every part of the horse. The flank, the sheath, under and between the thighs are ticklish parts, but must not be omitted. You must place yourself in such a manner as to run no risk of being struck by the horse; for which purpose, place your right hand on the hip of the horse; the animal will lean against you, but you will not be the less safe on that account. Proceed down the thigh, hough, leg, fetlock, &c. rubbing most, as I have before observed, where the currycomb could not be applied.

The brush comes the next in succession, which should, in the first place, be cleared of dirt and dust by rubbing it on the currycomb.

Proceed with the brush in the same manner as with the wisp, especially brushing those parts where the dust is most likely to lodge, such as the neck, next the head, down the scrag next the mane, applying the brush backward and forward, if necessary, taking care to finish the last three or four strokes the same way as the hair lies in order to render the coat smooth; also clearing the brush from the dust every two or three strokes by rubbing it on the currycomb. About the sheath, and places which produce no hair, need not be brushed.

As the operation of the brush causes much dust to fly about, the horse should be wiped with a piece of clean soft leather, hair cloth, flannel, or a piece of horse rug.

Let it be recollected that, in cleaning horses, we should be guided by circumstances: for instance, if the coat be long, foul, and full of dirt, the currycomb should be very freely applied; and it will be some time before the coat will become quite clean; nor should the currycomb be used too much at one time, lest injurious consequences should result from it—lest the coat should stare, or stand up; the pores of the skin would be opened, and the horse would catch cold: the insensible perspiration might become obstructed, and it is difficult to say where the evil might terminate.

Horses kept in warm stables will have fine coats if the animals are properly groomed; on the contrary, a cold stable will produce a long coat, in defiance of all possible grooming. In this, we may clearly perceive the operation of Nature; which thus furnishes a long coat to guard against the effect of cold. All animals, which live in the colder regions of the earth are remarkable for the manner in which they are provided to counteract the effect of the climate. A stable, in the heat of Summer, cannot be too cool. In cold weather, it should be warm—indeed, it can scarcely be too warm so long as it is properly ventilated. I have been in stables, particularly those of the Rev. Mr. Shakespear in Cheshire, which appeared almost suffocating. I could scarcely breathe in them. This would seem to be carrying stable heat beyond the bounds of reason: yet I must confess, that very few horses appeared in the field in condition equal to those of the gentleman I have just named. The same remark will apply to those of Sir John Kaye, as well as to several other studs which I have visited. I would have horses well clothed.

At first sight it would appear that horses kept in stables of the description just noticed, would be very susceptible of cold when exposed to the influence of the atmospheric air; but I could never perceive that they were more susceptible than others—if so much. If it be desirable for a horse to appear in prime condition, with a beautiful bloom upon his coat, it cannot be accomplished in a cold stable. Even in a stable tolerably warm, the hair upon the horse's fillets or thighs will, on the approach of Winter, become long; that

is, long hairs will be thrown up; which may be removed by pounded rosin held in the hand and rubbed upon the part in question.

After having finished cleaning the horse, his clothes are to be replaced; and this should be done with care and in a proper manner, since nothing can be more unsightly than the clothes appearing uneven, nor can they thus be comfortable and pleasant to the horse. Therefore in throwing the cloth over the horse, let it fall considerably forward, then placing yourself behind the horse, you can draw it back (which causes the hair to lie the right way) and adjust it evenly. Lay the pad of the roller on the horse's back, and buckle it moderately tight, so that the cloth and roller may keep their places, but not so as to render it uncomfortable to the horse. If a sheet be used, (instead of a rug) which is made to wrap over underneath, it should be laid smooth, so that when the roller comes to be buckled, it may not appear in wrinkles, nor gape—every part should be adjusted to lie close and free from wrinkles.

Then take off the horse's stall collar, turn him about in the stall, and give his head and ears a complete rubbing and brushing; wipe him well with your leather or cloth, and pull his ears through your hands, observing that they are soft, clean, and moderately cool. Comb out his fore top and mane; then with a water brush or sponge wet the top or roots of the mane, and pass a small rug or cloth over it, putting one end of it over on the near side at the top, pull it over to the off side, pressing the mane, and hair next the root of the mane, down, to make it lie smooth. Turn him about, buckle on his stall collar, and comb his tail, and wipe away any filth that may be lodged under his dock. His feet should next be picked and washed if necessary. Lastly, let the legs be rubbed with a clean loose wisp of straw in each hand, and the operation will be best performed kneeling, passing the wisp down the legs and sinews—finish with passing your hands down in like manner, to ascertain that no particles of straw or other substances adhere to them, but that they are quite smooth. These leg rubbings are of great use in quickening the languid circulation of the blood in parts remote from the heart, and will prevent the legs from becoming round; to which some horses are constitutionally predisposed; and to which others are very liable from over-exertion and inattention; and which when neglected, will be very likely to end in grease.

Give the horse his water, the quantity being governed by circumstances:—if the horse be inclined to have too much belly, his allowance of water must be shortened, and his allowance of hay also: if he be going out immediately, the same rule should be observed, as no horse can travel if blown out with hay and water. On a journey, a horse may be frequently indulged with a little water, which will much refresh him, particularly in hot weather; but he must not be allowed to drink

his fill till he has finished his day's work. I am speaking of a hackney, travelling at a moderate pace.

If the horse be not going out, he should take his exercise; and in this case, he may, while eating his corn, be merely brushed over and taken out as soon as he has finished his corn—if the morning be cold, the saddle may be placed on the rug. Where horses work two or three days in the week, airing exercise will be sufficient in the intervening days; but a horse should have either so much work or exercise twice in the week as will give him a good sweating, which will throw out through the pores of the skin what might otherwise cause humours; this sweating exercise likewise forces up the scurf, &c., and renders the coat clear and fine.

Exercise, though essential to the health of all horses, must be regulated according to circumstances, such as the constitution of the horse, his condition, &c., but, supposing the animal to be quite sound and a good feeder, two hours daily will not be too much: sometimes walking, sometimes trotting, &c. taking care to walk for some time at the latter end of the business, so that the horse may be perfectly cool, when he is watered on the way home, if convenient, and cleaned on his arrival at the stable after the manner already described.

The most open and airy places are the best calculated for exercising the horse—on turf, if possible—if on that species of elastic turf found upon the dry parts of moorlands, nothing can be better.

After the horse has been cleaned, give him another feed of corn. Shake down his litter and set the stable fair.

The groom's attention should next be directed to the horse furniture. The saddles and bridles must be cleaned with a sponge from all road dirt. The stirrups, buckles, and bits may be cleaned with Bristol brick or rotten stone, which, if applied dry with a piece of leather, will preserve the polish. When they are used, they should, the moment they are taken off, be wiped clean and rubbed with a bit of oiled flannel; neat's foot oil, or sheep's foot oil, is the best calculated for the purpose—no vegetable oil should be applied to iron and steel, as it soon becomes claggy and hard; animal oil, on the contrary, is naturally more soft, and will preserve the metals just mentioned much better from rust. Plated buckles may be rubbed with leather and whiting, care being taken not to smear the leather to which they are attached. Girths, when very dirty, should be well washed with soap and water. When all is cleaned, buckle the girths properly round the saddle, to keep the flaps down.

At noon give the horse a similar quantity of hay to that which he received in the morning, and another feed of corn; take away the dung, shake up the litter, and set the stable fair.

About four o'clock, let the horse have as

much water as he will drink, if he be not going out—unless he be a very greedy horse indeed for water, as he can scarcely at this period, drink more than will be beneficial. But brush him over first, which will put the blood in circulation, refresh the horse, and clear away that species of dust from his coat which is continually arising from insensible perspiration. The use of the currycomb and the wisp may be dispensed with, unless the coat of the horse is uncommonly thick and foul; finish, however, with rubbing the legs, combing the mane, tail, &c. Now give him his water, and leave him.

About eight o'clock, the business of the day should conclude. You must now give him another feed of corn and his remaining allowance of hay. In making up the bed, you should contrive to lay all the worst of the litter in the middle, where the horse is most likely to stain and spoil it; the cleanest and driest, should be placed on the top, the bed placed well up on the sides, and full towards the hind quarters. Sweep clean out, observe that all the stall collars are correct, and every thing else in order; when you may lock up.

When horses come in wet and dirty, they should not be left till they have been made thoroughly dry, clean and comfortable.

When a horse comes in remarkably wet or dirty, or both, the scraper should be applied, with which you remove as much of the dirt, sweat, or wet, as you are able, commencing at the top of the neck and proceeding to the shoulders, chest, back, ribs, flank, hind quarters, belly, inside the arms and thighs, down the legs, &c.: let this be done before you take the horse into a stall. Take off his bridle, and with clean wisps of straw rub his head well in every part; draw his ears through your hands for a minute or two, an operation very grateful and very refreshing to the horse. Tie his head to the rack, giving him a little hay, and wisp him well with clean straw all over, letting your wisps be rather loose, and let them also be frequently changed. In the first wising, you may rub both ways, by which means you will get more of the dirt out of his coat than by only using the wisp one way; finish however, by laying the coat as smooth as possible. The legs should be rubbed with wisps for the purpose of removing the principal part of the dirt. Wisp first one side and then the other several times, which will remove the principal part of the filth, taking plenty of clean dry straw, and wipe him for the purpose of getting him dry; which, if the horse be in good condition will soon be accomplished: and wiping the coat down smooth will greatly contribute to this object. If the horse be weak and faint, and breaks out again, the clean wisps should be applied with a lighter hand, that you may not occasion further perspiration; but you must not suspend your exertions till the horse is completely dry. Then proceed to brush him over, and clean him completely, after the manner already described; nor must he be

left till he is rendered as dry as when he went out in the morning, and as comfortable as possible.

There are horses, however, which, after undergoing more than ordinary exertion, require the labour of hours before they become dry. This arises from various causes:—it may be from want of condition, constitutional weakness, or a long coat: and horses of this description will, after being brought into the stable and rubbed nearly or quite dry, break out into a sweat again, and continue in this way for hours, or perhaps the greater part of the night. Good keep and proper grooming will remedy this defect in the first case; that is, want of condition: and also in the second to a certain extent; for the last, that of a long coat, clipping has been found to have the desired effect.

It was some years before I could be reconciled to this operation of clipping: I could not prevail upon myself to think otherwise than that it deprived the animal of a covering which Nature had intended should shield him from the inclemencies of the weather; and this reasoning would appear to be unanswerable: yet having witnessed the beneficial effects of clipping in a great number of instances, and of its injurious consequences in none, I am under the necessity of recommending it in cases of long-coated horses which, after more than ordinary exertion, are with difficulty got dry when they return to the stable.

A thorough-bred horse will seldom, if ever, stand in need of clipping: it is principally amongst horses of inferior blood that clipping is rendered necessary. Many of the Irish horses stand in need of clipping. It is true, that of late years a great improvement has taken place in the breed of Irish horses, yet many of the old sort are still to be met with, with long bristly coats, which cannot be got into good condition till the operation of clipping has been performed upon them. Clipping alters the colour of the horse, and gives him, in my estimation, no very prepossessing appearance: further, an opinion cannot be so well formed of his health, when he has been thus deprived of the greater part of his coat, since that part which remains upon him will not exhibit the sleek glossy bloom so indicative of good health; nor yet the *penny* stare, which is a sign of the reverse. But, beyond all question, it answers the intended purpose; the horse becomes dry after great exertion very rapidly, and breaks not out again into those never-ceasing faint sweats for which he before was so remarkable, which rendered it impossible to get him into condition, and incapacitated him for great and continued exertion. The horse should have an extra cloth for a day or two immediately after clipping, which seems to be all that is necessary to prevent his taking cold; for in a very short time afterwards, he is no more liable to take cold than those horses whose coats did not render clipping necessary. In

the best regulated stables *singeing* has been substituted for clipping, and is far preferable. Some have carried the matter so far as to *shave off the hair!* The lather and razor is applied, the horse is literally shaved: he is then well clothed with woollen or blankets, into which the hair soon grows: his clothing is gradually lessened, and a fine short coat is produced of its natural colour.

Horses which are very greedy drinkers are much inclined to sweat, but I seldom feel an inclination for shortening a horse's allowance of water, unless he far exceeds the ordinary bounds. If a horse does not drink freely, he seldom feeds well, and consequently it becomes a very difficult task to get him into condition: if, after endless trouble, a horse of this description acquires something like what is well understood by the word *condition*, he will go through one severe day's work, and that is all upon which you can calculate—his appetite fails, and nothing but vexation and disappointment results from horses of this description. There are persons who will tell you, that some of the best horses in England are shy or bad feeders; but expressions of this sort are calculated to convey a most erroneous impression, unless accompanied with the requisite qualification; for nothing can be more true than the old adage, that "if a horse won't feed he can't work." And therefore, when representing some of the best horses in England as shy feeders, it should be recollected that, if the expression is used in reference to a race horse, it amounts to this,—that the horse in question is remarkably fleet, and that, when with infinite pains and endless trouble, he has been got into the best possible condition of which he is susceptible, he will run *one* race well; but if this *one* race happen to be severely contested, it takes every thing out of the horse (that is, completely exhausts him) and he is not able to run again the next day, or in a few days (as a horse of a strong constitution would) or perhaps during the whole season!

In like manner, if a horse used for hunting be a bad feeder, he will perform well with harriers, at least if nothing severe take place, but one good run with a fox will most probably put him *hors de combat* for a considerable time—perhaps for the remainder of the season. I like to see a hunter in particular, with a good round carcass—a bad feeder presents the reverse—his carcass will be found tucked up; and I have often observed that shy feeders have frequently a peculiar staring starven expression of the eye. It often happens, however, that they are very free goers and very fleet also—the cause of which is, that they generally come out of the stable with their intestines and stomach by no means overloaded, from which they go freely, and as their carcass is tucked up, it enables them to bring up their hind legs and gives them speed: but as they may be said to have but little internal support, they soon become exhausted.

I have two horses (the one a bay and the other a brown,) both of them superior hunters: one of them is a good feeder, the other the reverse. The bad feeder will, for a short run, beat the other; but if the run becomes long and severe, the good feeder can overrate his competitor, and, what is more, he will come out again in two or three days, while the other, as he will not feed, cannot be expected to be able to endure severe exertion for some time.

Horses which do not feed well, require much nursing and attendance, and are liable to disease; their constitutions are delicate, and the animals are very much affected with the coldness of the atmosphere, unless they are protected from it, and properly managed.

In a state of nature some horses will be found that will eat more than others; and we find in the stable, that some are greedy feeders, others good feeders, and others again very delicate or bad feeders. To the greedy and the moderate feeders I feel no objection; the former will require more exercise than the latter, to prevent grease and humours which might otherwise arise from a gross and plethoric habit; and I am of opinion that no horses are bad feeders originally; but that this want of appetite arises from ill-treatment and disease. Inflammation of the lungs I have known to cause a horse to become a bad feeder, which, prior to that period, fed very well. I have known the farcy to produce the same effect. Horses of this description are ever after very delicate: they will shake under the influence of cold air, and even die, if not moved about and well clothed.

A horse now in my possession, a handsome fleet, good tempered horse, is a bad feeder. He is an Irish horse, and came into my hands when he was six years old. I am inclined to think that he has undergone very severe, and indeed violent exercise at an early period of his life, and in consequence of neglect has sustained a severe attack of inflammation of the lungs. If, after a run at grass, from the middle of May to the end of June, he be taken into the stable, with infinite trouble he may be got into tolerable condition by the latter end of October; but the first severe day after hounds seems to take his condition completely away, and he will not look well again during the winter, in defiance of every possible attention. And during this period, he will require alterative and diuretic balls; and though he is a pleasant horse to ride, not the least reliance can be placed upon the continuance of his exertion. A horse of this description cannot be otherwise than very troublesome, very expensive, and very unsatisfactory.

To horses labouring under a difficult discharge of urine, a diuretic ball administered occasionally will be found highly beneficial: it will give relief to the horse in a few hours, and may be given to him without the least preparation, and at any period of the day. It will prevent the heels swelling and becoming

greasy, which they would scarcely fail to do when the free discharge of the urine is interrupted. The diuretic ball may be thus prepared :—

Yellow rosin, half an ounce.  
Linseed powder, three drams.  
Sweet spirit of nitre, sufficient to make the ball.

The following will operate as a diuretic and increase the horse's appetite also. Horses which have difficulty in staling are often indifferently feeders :—

Best cantharides, in fine powder, three grains.  
Pimento in fine powder, two drams.  
Fine oatmeal, three drams.

Mix this powder in the horse's corn; if he will eat it so much the better, and horses do not often refuse it. If, however, the horse will not eat his corn thus mixed, a ball may be given him, prepared in the following manner :—

Cantharides, in powder, three grains.  
Powder of ginger, two drams.  
Powder of gentian, three drams.  
Treacle enough to form a ball.

Give one of these balls every other night.

Or, you may give the following :—

Nitre, sulphur, rosin, and linseed meal, a quarter of a pound each; mix them well together and add one ounce of Ethiop's mineral.

Give the horse a table spoonful in his corn every night.

Any of these may be given to bad feeding horses with advantage, and to those who have difficulty in ejecting their urine; and, as I have already observed, it will frequently happen that these two unfortunate qualities or maladies are united in the same horse. Horses vary very much in their disposition and temperament, and it may soon be discovered which of the three compositions is the most beneficial to the animal.

When the legs are inclined to swell, a diuretic ball will be found serviceable; but exercise, under such circumstances, must not be neglected.

No horse can continue in good health without exercise. Want of exercise will cause the legs to swell; in which case the circulation of the blood becomes sluggish in the extremities, and the parts far removed from the heart; the gross particles of this fluid, therefore, lodge or remain inactive in the finer arteries of the horse's limbs, and cause the legs to swell.

Legs will also swell from an impoverished state of the blood, when the system has become languid from a long continuance of in-nutritious food. This, though a different cause, produces a similar effect to that which I have already noticed, namely, a sluggish circulation in the extremities. But, although the same effect is produced in both instances, the remedy must be very different in each case. In the first case, unless the business be taken in time, physic, bleeding, &c., must be had recourse to in addition to exercise. In

the second case, gentle exercise, and good food should be administered; as the horse gains strength his exercise may be increased, and after some time a mild dose of physic (four or five drams of good aloes) may be given him. He will also receive benefit from his legs being bandaged at night.

It sometimes happens that the horse's legs swell from severe labour or fatigue; in which case fomentations of warm water should be applied, which, with rest and gentle exercise, will have the desired effect. Warm water, however paradoxical the expression may seem, is very cooling, and will not fail to dissipate the inflammation of the legs and feet.

Every animal is affected by the food which he eats; and hence we observe that, when a horse has subsisted for years in swamps, and such like places, and has consequently been feeding upon nothing but faint and foggy food, however well he may appear, he is no sooner taken into the stable, and put to a little work, than he exhibits unquestionable symptoms of weakness and debility; his legs swell, and he will fly to pieces (as the term is) if this be not prevented by proper attention and management. In this case I should prefer walking exercise, good food, and bandaging the legs at night, to the administration of physic. It is true, a dose of physic will reduce the swelling of the legs, but the operation reduces the horse also, already weak and debilitated, and therefore this makes bad worse, as in a few days the legs will swell again worse than they did prior to the administration of the physic.

In all cases of swelled legs, if proper treatment be not adopted they will break out into cracks and sores, will discharge a fetid fluid, which, if neglected, will rapidly spread, and become what is called grease.

In cases of swelled legs, to which horses in high condition are subject, there is nothing perhaps superior to a few balls made in the following manner:

One pound of nitre.  
Half a pound of sulphur.

Molasses sufficient to make the whole into balls of the common size: one to be given every day till the swelling has completely subsided. When horses fly at the heel, appear unkind in their coats, these nitre and sulphur balls will be found to answer the purpose much better than a course of physic, as the object will be thus effected equally well, if not better, while their operation is milder, and the horse consequently suffers less both in his constitution and condition.

When a horse contracts a cold, if it be but slight, warm clothing and exercise will effect a cure. If the cold be violent, bleeding, purging, sweating, and perhaps a diuretic ball may be necessary, by which inflammation is prevented, and the disease expelled: I do not recommend a horse to be nursed for a cold with warm mashes, cordials &c., as such means appear to me calculated to in-



crease the inflammation, with which colds are uniformly attended. When a cold first appears, warm clothing and moderate exercise in the open air (as I have already observed,) I mean such exercise as will keep the blood in free circulation without heating the horse. This is much more likely to effect the object in view, than the confined air of a stable, which can scarcely ever be pure, and which is frequently converted into an effluvia that cannot fail to irritate the lungs and increase the cough. Should, however, fever attend the cold, the horse should lose two, three or even four quarts of blood, which will greatly relieve him. Give a gentle dose of physic, and also gruel, and if he will not take the gruel, let his water be chilled; gentle exercise, warm clothing. This method is much superior to cordial balls, mashes, &c.

When horses are well fed, and not sufficiently worked or exercised, the economy of the whole system becomes deranged. The stomach is unable to perform its functions; the circulation of the blood is obstructed, the lungs are oppressed and incapable of the requisite expansion; and a train of very serious evils are likely to result from such a state of the animal organization, if, at least, relief be not immediately administered, and nature relieved from her overwhelming load, by bleeding, physic, and exercise. Yet I must observe, that if horses are well fed, well groomed, and properly exercised, bleeding and physic will seldom be necessary.

When the horse exhibits symptoms of approaching illness, such as refusing to eat, languor, heaviness of the eyes, heat in the mouth, breaking out, itching, swelling of the legs, &c., it will be highly advisable to apply the fleam or the lancet, in order to check the progress of the approaching disease. If the horse has been well kept, little worked, or exercised, and is full of flesh, it may reasonably be concluded the blood vessels are overcharged; and of course they must be relieved by evacuation, in the application of which a sound judgment should be exercised. If the horse has been kept at regular work or exercise, and by severe exertion is over worked, the loss of two or three quarts of blood and a day's rest will operate a cure.

If a horse, after being ridden till he is very hot, be suffered to cool too fast, he will contract a violent cold, attended by fever: he should be copiously bled, and have plenty of chilled water with a little oatmeal stirred in it, given to him. Mashes may be given in this case, followed by a mild dose of physic. If the horse does not dung as usual, immediate relief should be applied by the process of back-raking, followed by a glyster, made of thin gruel or any warm liquid and a little lard or grease in it. Should not the fever abate, bleeding and physic will be advisable, keeping the horse well clothed to promote perspiration as well as to prevent cold, leading the animal broad if the air be not severe. If no amendment be perceptible, call in the assist-

ance of a *skilful* veterinary surgeon, if such a person be within your reach. *Skilful* veterinary surgeons are seldom met with: you had better kill your horse by your own experiments than call in a man of no ability, who would finish the business in the same way, and make out a long bill into the bargain. A veterinary surgeon of acute perception and sound judgment, I regard as a valuable member of society; and whenever I have occasion to employ one of these professional gentlemen (which is not often) I make a point of having a little conversation with him before I trust so interesting and useful a creature as the horse to his direction.

When horses, either from inattention or other causes, have cracks, chaps, or running sores at the heels, they should be kept very clean by frequent washing with warm water, or the humour issuing from those sores will spread rapidly and cause the horse great pain. If the chaps are slight, unattended with inflammation, and small pustules issuing and ichor do not appear, they are most likely the result of neglect rather than the effect of disease; and therefore, after having been washed clean, and wiped dry, a little drying ointment may be applied, and a cure will soon be effected. If, however, they have originated from a vicious state of the blood, they should be poulticed repeatedly and kept clean; which will draw away the acrid fluid and assuage the pain: in a short time, you may dry them and heal them up in the manner just described.

All horses require much attention to the legs, particularly those which are highly fed.

The feet of the horse should be examined and picked out when he comes home; and if it be necessary to use stopping for the feet, there is nothing equal to the application of water. I am well aware that cow-dung, tar, or a mixture of these, tar and grease, and fifty other articles have been recommended for stopping horses' feet, each of which might enumerate its own most strenuous advocates; yet, after all, to what does it amount? Why, that, as in many other cases, persons hastily adopted the one or the other, without duly considering the subject, at least in a philosophical point of view. The intention of stopping the horse's foot is to soften it; and, as nothing will effect this purpose so speedily and so well as that simple fluid water, I therefore recommend it for the purpose in preference to every other substitute:—water not only softens the foot, but keeps it cool. There are patent pads for the purpose of stopping the feet of horses, but how far they answer the intended purpose I am not able to state, as I have never used them. Water may be applied for the purpose of softening the foot of the horse by means of flannel or toe soaked in it, applied to the foot, and fastened by means of small flat specks, fixed in the interior edge of the shoe. Where horses can take their exercise in the dewy grass, their feet will not want stopping; but this

is not always attainable, particularly in London.

When a horse becomes what is termed groggy, he is no longer fit for a hackney. A groggy hunter is not an uncommon sight, but they cannot be safe. Nor is there any cure for grogginess or founder, or which, in the phraseology of the lecturer Percival, is called the navicular disease. The operation of nerving may afford temporary relief, but no permanent cure can be expected.

When a horse comes in dirty, on no account allow him to be ridden into a pond for the purpose of washing off the dirt, nor yet allow the water brush to be applied much above the fetlock. Indolent grooms and stable men will, if not prevented, wash off the dirt with the brush from the arms and thighs, under the belly, the sides, &c. by which disease is produced that often ends in glanders. This horrible disorder mostly makes its appearance in stables where stage coach horses are kept, and generally arises from the practice of *washing the horses* with the brush, by which much labour is saved in cleaning; and to which most of these stage coach horse keepers will resort, if not well watched.

Horses are sometimes troubled with worms and bots, which are represented by Percival and other writers as not injurious to the health of the animal; an opinion to which I cannot subscribe. When a horse is troubled with worms he appears lean and jaded, his coat stares, and however well he may be fed, he never presents the appearance of anything like condition; since therefore, worms produce such indications of bad health, I cannot help thinking them injurious to the animal.

For the removal of worms and bots, veterinary surgeons generally employ calomel, which will, no doubt, destroy these vermin; but for that purpose the system must, in some degree, be poisoned; the horse must be affected with the calomel before the worms can be destroyed or removed. In preference to calomel I should recommend the use of linseed oil, which is as sure and as deadly a poison to the worm or the bot as calomel, but not injurious to the horse. Half a pint of linseed oil is a dose for the horse, which should be administered early in the morning upon an empty stomach, or as nearly so as possible; the dose should be repeated in three or four days; and the third dose administered after the lapse of a similar period. When a horse is troubled with worms, some of these vermin will have their noses buried, as it were, in the coats of the stomach or the intestines; and many of them will thus escape, in some degree, the effects of the oil; those which are loose will be killed. Hence may be easily perceived the reason for repeating the dose; and there is seldom occasion to administer more than three.

Incidental occurrences, such as pricks, bruises, kicks, &c. should be attended to immediately. The injuries the bottom of the feet sustain are generally from nails, sharp

flints, broken bottles, &c., and in these cases it will sometimes be requisite to remove the shoe, in order to be able to examine the wound in a proper manner. The wound should be cleaned, and if it be not serious, the application of a little of any of the spirituous balsams will be sufficient; otherwise procure the assistance of a skilful veterinary surgeon. Treads and bruises between hair and hoof, may become, if neglected, very serious injuries: they should be kept clean, and friar's balsam or some balsamic tincture applied to them. Bruises from blows and kicks, and the like, should be bathed with any kind of repellants, such as cold vinegar, goulard, or brandy; any of which will very much assist in dissipating the blood which rushes into the smaller arteries where the bruise takes place. All kinds of green wounds may be cured by the balsams already enumerated; these will be found preferable to unctuous applications, particularly where a bandage cannot be used.

When the roads are hard, horses with brittle hoofs are apt to exhibit sand cracks; or in other words, the horn of the hoof will crack or open from the coronet downwards, at first presenting perhaps, not more than an inch in length, but which, if neglected, would very soon proceed from the top to the bottom, which would render the horse unserviceable for a considerable length of time. As soon as the crack is discovered, apply a cauterising iron, and scar the hoof crosswise at the bottom of the crack tolerably deep, which will prevent the crack from proceeding further. In like manner, scar the top just above the hoof, for the purpose of preventing the continuance of the crack as the hoof grows, melt some Burgundy pitch, and fill the crack with it. After the horse has rested a day or two, he will be fit for moderate work.

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PRESERVATION OF APPLES.—The following valuable observations, contained in a letter, have been published in the *Massachusetts Agricultural Repository*:—It is the practice of some persons to pick apples in October, and first spread them on the floor of an upper room. The practice is said to render apples more durable by drying them: but I can affirm this to be a mistake. Apples, after remaining so long on the trees as safety from the frost will admit, should be taken directly from the trees to close casks, and kept as dry and as cool as possible. If suffered to lie on the floor for weeks, they wither and lose their flavour, without acquiring any additional durability. The best mode of preserving apples for spring use I have found to be putting them in dry sand, and as soon as picked. For this purpose, I dry sand in the heat of summer, and late in October put down the apples in layers, with a covering of sand upon each layer. The singular advantages of this mode of treatment are these:—1. The sand keeps the apples from the air, which is essential to their preservation. The sand checks the evaporation of the apples, thus preserving their full flavour; at the same time any moisture yielded by apples (and some there will be) is absorbed by the sand, so that the apples are kept dry, and all mustiness is prevented. My pippins in May and June are as fresh as when first picked, even the ends of the stems look as if just separated from the twig."

GRAVESEND AND NORTHFLEET  
AGRICULTURAL ASSOCIATION,

We last month gave a list of the prizes awarded at this meeting, we now subjoin an interesting discussion, which took place after dinner: which we have extracted from the Maidstone Gazette.

T. BENTLEY, Esq., returned thanks, and assured them on behalf of himself and the other Vice-President, that their best exertions should never be wanting to promote the success of the institution. It appeared to him calculated to arouse a laudable ambition and excitement in their best labourers, in lieu of the debasing propensities which were too often found in some of them. He had no doubt but they felt gratitude for the advantages and liberal treatment which this institution extended to them. He (Mr. B.) believed, however, that this institution was calculated to produce much more important results, by the discussion of important agricultural questions. In order to promote discussion on one of these subjects, he had sent for three years a plough of an improved construction, drawn by two horses only, to each of their ploughing matches. He wished to have the question fairly discussed, whether or not the land in that neighbourhood required four horses to plough it? It was of very great importance that they should ascertain whether such was the case or not, because it depended on that fact whether they should continue to incur an expence of 25 per cent. more than was necessary in the culture of arable land? An increase of 25 per cent. in their rent would be considered a most heavy exaction, but they submitted to an unnecessary outlay of 25 per cent. in labour, because they had been used to do so. If they found upon inquiry that four horses were absolutely necessary, it would establish a most important exception to a general rule, namely, that whilst every thing around them was in a state of improvement, and in every department attempts were making to diminish the expense of labour, the turn-rist plough was an important exception, and, though of great age, was not capable of improvement. He took the opportunity of making these observations because he thought that the best course he could take to get this important question decided, was that of promoting discussion. (*Cheers.*)

R. H. BEAUMONT, Esq. said that it seemed to him that the question before them was whether it was absolutely necessary in the culture of the general lands of this county that four-horse ploughs should be used? It had been contended that it was impossible to turn the earth up deep enough to destroy weeds, &c., with a two-horse plough. Although he was inclined to that opinion, yet he would not say that it was impossible. At all events it could be put to the test. Such would, however, not be the case, unless some person came forward to propose to the committee that they should select two parcels of land, equal in every respect, in order to submit the matter to a trial for one, two, or three seasons. He did not think that one season was enough. (*Hear, hear.*) He had heard it said on that day that the two-horse plough did its work very foul, but that the next year the land would be very foul. He had also heard it remarked that wheat grown on the land so ploughed was not so good as wheat grown on land by the side of it, ploughed by the turn-rist plough. If the committee of this institution would select two pieces of land, say of eight or ten acres, in order to try the experiment, he him-

self would give ten guineas towards the expence. (*Long continued cheering.*) In this county they had always been called an old-fashioned people, but he did not see why they should continue to shut their eyes against improvement. (*Cheers.*) If the committee would try the experiment, there was no doubt but it might be productive of great good. (*Cheers.*)

Mr. RUSSELL said that he had tried both two-horse and four-horse ploughs, not only in Kent but in Essex. He should be exceedingly happy to see any improvement in the turn-rist plough. He had in his trials been assisted by Mr. Webley, an eminent mechanic, who had said that he never saw a plough that turned the land so completely over as the four-horse turn-rist plough. He (Mr. R.) had found that in Essex he was still obliged to keep the same number of horses per acre for other purposes, even if he ploughed with two horses, and on an average of five years that the land ploughed with the two-horse plough was much more deteriorated than the land in Kent, which was ploughed with four horses. He believed that one good ploughing with four horses was equal to three ploughings with two horses. (*Cries of "No, no," "Yes, yes," and cheers.*)

Mr. ELEY said that he had been farming for forty-two years on all sorts of land, from the best to the worst, and he had found that the wheat required the land to be closed upon it by the four horse plough on very light lands, in order to keep the wet from the roots. He had also found that the two-horse plough could not bury the grass and weeds at a sufficient depth. What had rendered Kent so famous for ploughing, if it were not the use of the turn-rist plough? He thought that the two-horse plough would never do on heavy lands, and that on light lands it would require more expence to keep it clean than the use of the turn-rist, and would not produce more corn. (*Hear, hear, and cheers.*)

Mr. BENTLEY said that his plough had that day ploughed half an acre of land in the field. If Mr. Solomon was agreeable, he would undertake to plough that same half-acre for five or any number of following years with the two-horse plough—that it should be in other respects treated the same as the other land—and if, at the end of five years, there was any deficiency or inferiority in the corn produced on that and the same quantity of land beside it, he would forfeit ten guineas to the society. He must admit that the proper test was, as Mr. Beaumont had proposed to the society, that of experiment. Still, if Messrs. Solomon would let him know when their field was to be ploughed, he would send his two-horse plough to plough the half-acre. (*Cheers.*)

The CHAIRMAN proposed "The Committee of Management," which was drank with due honours.

Mr. ELEY, in returning thanks, said that when he replied to Mr. Bentley as to four-horse ploughs being with some exceptions the best, he intended to have stated, in his opinion, two horses were certainly preferable for ploughing clover leys, for he had observed in such cases the shallower the ploughing the better the crops, and that, unless it was creased after the four-horse plough, Mr. Bentley's plough would produce more corn. (*Cheers.*)

The health of the Judges was then drank with the usual honours.

Mr. BARGROVE, in returning thanks, observed that Colonel Dalton had spared no trouble and expence in trying to introduce the two-horse ploughs, but he found that they would not do. He said that the men were prejudiced, and gave them five shillings each, to encourage them; but they said they did not understand how to use them—the farms run out—and the whole project fell to the ground.

## THE TITHE ACT.

TO THE EDITOR OF THE HEREFORD TIMES.

SIR,—In your paper of Saturday last there is a long letter on the subject of tithes, in which the respected writer expresses his regret that during the parliamentary discussions on the Tithe Bill, the landowners and farmers of England appeared to look on with supine indifference. And that a member for this county had told him, that among all his constituents he could not name two who had expressed any degree of dissatisfaction of the Bill. This may be true; for, alas! the landowners and tenants of Britain did appear to be asleep, or to have become chicken-hearted, and, like American birds under the fascination of the rattle-snake, wriggle, flutter, and cry, and finally, without an effort to escape, yield to their fate, and become the prey of the rapacious reptile. But, Sir, it will be found, I trust, that when injustice shall stalk abroad, the agriculturists and yeomen have not lost their native courage.

The true reasons for their hanging back appears to be that landowners, in very many instances, and especially those possessing large entailed estates, have their property so intertwined with tithes and church patronage that they think it is best for their pecuniary interests, leaving patriotism out of the question, to let things stop as they are, without the hazard of a change. And the tenants or tillers of the land are jealous of any new arrangement, from the fear that the landlords may be benefitted to their loss; and they prefer to chaffer with the clergyman or lay proprietor over whom they hold the expense and risk of taking tithe in kind, as a check on their demand, rather than chaffer with the landlord for the rent of the land tithe-free. I therefore hail with acclamation the present Tithe Act, as it will most thoroughly remove from the eyes of the parties spoken of, this "dog in a manger" cause of distrust and inaction; and so soon as the coercive clauses of the Act come into operation, they will find, to their cost, that they have been palsied by a shadow, and that they had better have co-operated in active endeavours to form a plan by which, by national justice, tithes might be abolished altogether.

If I rightly comprehend the Act, the commissioners are bound to compel commutation by the mode pointed out in the Act; and the choice to commute, or not to commute, no longer exists with the land or tithe owners. If this be the fact, is it not the interest of the tithe-payers to take time by the forelock, and to come forward and to form an association which might consider the question in all its bearings, and assist the legislature by its counsels, and its concentration of practical knowledge and experience? A letter containing this suggestion was inserted in your paper of the 17th of last month, and a part of which I now beg to copy:—"But before government can proceed with so great a work as the abolition of tithes, they must feel confident of support, or at least the favourable opinion of a large part of the population, and the active petitioning of those concerned, viz., the landowners and tithe-payers. But to obtain these suffrages it will be necessary that the attention of the people generally should be called to the subject, and information disseminated as to the deceptive means by which tithes were obtained in olden time, and by degrees rivetted on the necks of the British people; and the present inconvenient and strife-stirring course of the system. It would be much to the honour of any county were a society formed to inquire into the present state of tithe arrangements, and whether the agriculturist does or does not pay for the religious instruction of the whole population as well as for them-

selves. And it would reflect honour on the county of Hereford to be the first to institute a society for the purpose of inquiring into and pointing out a remedy for the crying national grievance of tithes, and ensuring an income to the pastors on a new, and honourable, and liberal basis. And it is suggested, that if the names of a few of those who think in unison with the writer, were to be left at the newspaper offices, directed to him, it might prove the means of collating ideas and opinions, and therefore lead to the formation of a society under whose sanction the question might be brought before the noble, religious, and high-minded British people." To this suggestion, one landowner has already written his approbation, and it is to be hoped that others may follow his example, and if the president of the Horticultural Society of London, should deem the plan worthy of attention and support, it might prove the means of effecting much good, and of affording an opportunity to the timid, and to those who are afflicted, to speak out, and to make their oppressions known.

ATETHESIAN.

Kingsland, October 17th, 1836.

EMBANKMENTS.—Mr. Johnstone in his Treatise on Draining, &c. gives the following instance of the value of agricultural improvements under the head of "Reclaiming Land from the Sea by Embankments:—"The tracts of salt marshy ground which have been reclaimed in Scotland are not very numerous; but it is hoped the profit which these have afforded, may tend to induce further exertions in this branch of improvement. Perhaps there is no place in which more valuable acquisitions have been made in this manner than in the Island ofIslay, under the direction of its intelligent proprietor, Mr. Campbell, of Shawfield. At the head of an arm of the sea called Loch Gruinart, an embankment has been executed, by which four hundred acres of land, which formerly composed an useless salt marsh, have been brought under the plough. In making this embankment it was found that a considerable stream which discharged itself into the head of the Loch, impeded the operation of the flood-gates; and as the only effectual method of removing this serious inconvenience, Mr. Campbell had recourse to the expensive and arduous expedient of totally reversing the course of the stream, by withdrawing it from its old channel, and leading it through the opposite side of the country into Lochindaal. The whole of this embankment was executed in one summer. The total expense was about 600*l*. The ground which was reclaimed was let at an additional rent of 255*l*, so that estimating this at thirty years purchase, the immediate gain by the embankment was 7,050*l* sterling. Mr. Campbell has finished a similar embankment against the sea at the head of Lochindaal."

NEW VARIETIES OF THE POTATO.—When the rot first made its appearance among the potatoes, we ventured to suggest, that gentlemen who had spare time on their hands, might occupy themselves to a worse purpose than in producing new varieties of the plant, from seed. We learn that our Mayor, Thomas Kennedy, Esq., has, for a long time, been engaged in the culture of such varieties; and has, at length, succeeded in producing four—all of them of a large size, and very prolific, and one of them of a dark colour, and peculiarly well adapted for the table. Mr. Kennedy has a great many other varieties in progress. He finds that it requires five years to perfect them, from the seed; and that degeneracy commences in the tenth year.—*Derry Journal*.

## "A LINCOLNSHIRE FARMER" AND THE LADY COWS.

TO THE EDITOR OF THE MARK LANE EXPRESS.

SIR:—I observed in your paper, a letter signed "A Lincolnshire Farmer," in which the lady-cows are accused of destroying cabbages. He says "the cabbage is also in many instances very bad, the leaves being covered with a kind of filth, and where ever it happens they quite destroy the plant. I believe the filth to be bred by the lady-cow, as I have found many nearly all eaten away with these vermin, and upon examination I have found as many as fifty of these lady-cows, upon the leaves or stalks of one plant!" Now sir, it is needless to say, to any one at all acquainted with the natural history of these insects, that the Lincolnshire farmer is not only quite in error, but *the very reverse is the fact*. Doubtless the "filth" he alludes to is the cabbage plant-louse, (*aphis brassicae*) which are as distinct from the lady-cow, as the ox is from the tiger. That the lice in question destroy the plants there can be no doubt whatever, but that they are bred by the lady-cow is well known to be quite incorrect, for the latter insect is their natural enemy, and they have a very different method of propagation from it, and when in their perfect state are not so large by at least 19-20ths, and their long transparent wing, and midge-like bodies, remind us of any thing but the lady-cow. The latter deposits five or six yellow oblong eggs in a cluster, under some leaf, which hatch into a fat lizard-like grub, of a dim ash colour, and sometimes having a few indistinct spots of a light brown; these change into that beautiful beetle the lady-cow or lady-bird,—called in Yorkshire "doody-cow." He has just as much right to judge, that because he saw a couple of foxes in his meadow, they were devouring his grass, as to say, that because he sees fifty lady-cows on a single cabbage, they are devouring his plant. The fact is, the lady-cow has no apparatus for devouring the plant, and never do, but live entirely on these indistinct "filth" the plant-lice, whose long sucker (*haustellum*) enables them to kill the plants, by depriving them of their juices, and doubtless he was indebted to the fifty he saw, for the destruction of thousands of the real enemies.

When the aphid abounds, whether upon the turnip, bean, or hop, the lady-cows are sent by Providence to prevent their abundance, as the locust-thrush follows the locust, to thin their destructive ranks.

I observe also another error in the same paper, in your Derbyshire article, signed S. P. G., where the writer ascribes the failure of the turnips not to the smotherfly, (*aphis*) but to the drought, causing a decomposition of the gelatinous parts of the plant, which the flies he says, are sent to remove, in the way of the blow fly in consuming putrid flesh, and are not the cause of the evil, but are carrying off the effects of some other cause. This is also quite erroneous, for in Yorkshire where the flies abound, the month of August was partly, and that of September entirely wet, so that no decomposition from the drought could take place, though it is possible they may do more injury in a dry season, owing to their being no moisture to supply the juices of the plant which they suck. That the flies commence their ravages on any dry elevated situation is nothing new, but certainly does not prove his theory in the least. On healthy plants he says they are not found—it should have been, the plants which they have not attacked, have had nothing to affect their growth, and are healthy, and cover the ground, preventing

the drought from penetrating. The assemblage of flies at Mansfield, to which he alludes, was precisely similar to the swarms met with at York, Bradford, Wigan, Manchester, Malton, Thirsk, &c., about the same time, and which were leaving the turnip plants, either to propagate, or in consequence of the gross state of the juices of the plants, which rendered them unfit for their food. In this state, the geometric spider, whose beautiful webs are studated with them, are their greatest enemies, for the lady-cow cannot pursue them when on the wing, and sporting in their fanciful evolutions.

Yours obediently,  
Thorfield Oct 23.

M. M. MILBURN.

## USE OF CRUSHED BONES AS A MANURE.

(Continued.)

MODE, EFFECT, AND GENERAL DIRECTIONS.—Crushed bones have been invariably found more immediately beneficial as a fertilizer when suffered to remain previously for some weeks mixed with earth in heaps exposed to the action of the atmosphere; by being thus fermented and dissolved, they are necessarily more speedily serviceable as food to the plants to which they are applied, and this observation more especially relates to the oat, barley, and other spring corn, since these do not remain on the ground for so long a period as other agricultural crops. The proportion is 50 bushels of bones with five loads of earth or clay; or, 40 bushels to five loads of common dung. For wheat and pasture lands, the previous fermentation of the bones is, for this reason, not so essential to the production of immediate benefit. The mode of applying them is, either sowing by broad cast, or by the drill, either by themselves or previously mixed, as before described. On light dry soils they are employed to most advantage; the produce per acre is from 20 to 25 bushels. Their good effects have been acknowledged by many agriculturists to last for many years. A farmer in the neighbourhood of Watford, who dressed his land with whole bones, some twenty years since (at a period when you could obtain them from London for fetching,) declares, that to this day, to use his own expression, "the land has never forgotten them." The expense of bone dust is about 2s 3d per bushel; half-inch bones 2s; and one-inch 1s 9d. The turnip season is the time when bone manure shews itself to more advantage than any other, and on such crops it particularly excels. It is drilled with a drill made on purpose, with the turnip seed at a distance of 18 inches, and the turnips should be horse-hoed; the period is from May to July. Bone dust is also used with great advantage on grass lands sown broad cast. Since soil, situation, and climate, must all be taken into the farmer's consideration, it is almost impossible to give any general positive directions for the quantity of boned to be applied per acre. The following facts, however, have been ascertained by numerous experiments:—

1st.—That crushed bones remain in the soil for a length of time proportionate to the size of the pieces, the dust producing the most immediate effect, the larger pieces continuing to show the longest advantage. On arable land their good effects continue for four years; on pasture land for eight years.

2nd.—On turnips, oats, barley, and wheat, the quantity applied has been from 25 to 30 bushels per acre; on pasture land, from 25 to 40 bushels of bone dust early in the spring.

3rd.—The best mode of application is by the drill, with the seed corn.

4th.—The bones should, when first used, be always applied, for the sake of correct information, in varying quantities per acre, and on no account should the farmer omit to leave, by way of comparison, a fair portion of the field without any manure.

## STENT ON THE FAILURE OF THE POTATOE CROP.

SIMPKIN AND MARSHALL, LONDON.

The failure in the Potatoo crop, which has been productive of such serious loss in different parts of the country, renders every information upon the subject highly interesting to the Potatoo Grower. The author of this little work commences by animadverting upon the usual modes of preserving Potatoes through the Winter as well as of cutting and planting them, which he reprobates in the following terms:—"I would ask any reasonable man, if this course of treatment is not enough to destroy all the inherent powers of vegetation in the sets before they are planted?" We must observe that for many years we grew a considerable breadth of Potatoes, from 30 to 40 acres, and that we invariably pursued the system reprobated by Mr Stent, without ever experiencing a failure from decay of seed; and have raised from 80 to 100 sacks per acre, 240lbs to the sack, upon land not worth 15s per acre rent exclusive of manure. The following extract sets forth in detail the plan which our author recommends for our adoption, namely, that of selecting a "situation on the North side of a building, or high hedge," to make the pie, which, is decidedly at variance with our maturest experience.

"I shall now proceed to describe the course of treatment which ought to be pursued with the Potatoes which are intended for plants in the ensuing spring. And first of all I should say, that they ought to be picked out by hand from the bulk, at the time of taking up the crop, of a size weighing about four ounces.—These should be taken and laid thinly on a piece of clear ground, or on short grass, where they should remain at least three weeks, exposed to the action of the sun and air night and day, and longer should the weather permit, until they become quite green. If they there be any fear of frost, they must be covered over with a thin covering of straw to prevent the frost from injuring them, which should be taken off again as soon as a change of weather takes place. While they are thus lying on the ground, let them be watered over twice a week with a solution of saltpetre and water in the following proportions:—In ten gallons of spring or river water, dissolve half-a-pound of salt-petre, and let this be applied by a watering-pan with the rose on. When they have lain in this state about ten days, it would be advisable to turn them over; and after remaining the time before specified, a place should be prepared to pie them down for winter, which should be done, if possible, in a shady situation on the north side of a building or high hedge. A circular piece of ground must be cleared about eight feet in diameter, in the centre of which place the ventilator, as represented in the plate. This should be kept perfectly upright, and the Potatoes placed round it, the quantity not to exceed thirty or forty bushels. This being done, the next thing will be to cover the whole down neatly with straw, not more than two inches thick. In this state let them remain a week or ten days, or more, according to the mildness of the weather: then cover them about six inches thick with earth, keeping the ventilator continually open at the top, except in severe frost, when it can be easily closed by a whip of straw or hay. The whole of the sides of the pie might be covered down with litter, or Potatoo tops; in this state they may remain

until the weather becomes more severe, when the litter may be taken off and about six inches more of earth added, and the whole beaten well down with a spade. After this the litter may be replaced, every person exercising his own judgment whether this covering should be increased or diminished, according to the state of the weather; that is to say, in mild winters the covering might be diminished, whereas in very severe winters it will be necessary to increase it.

The advantages of the ventilator will be seen by its allowing the evaporation to pass off the whole depth of the pie; by this means the Potatoes will be kept in a cold, dormant, state, and will not grow until the time of planting; consequently the centre eye will be preserved, and which will always grow the first and the strongest, and therefore the Potatoo possessing all its inherent powers of vegetation, must of course make a much stronger shoot than those which have been previously exhausted as before described. From the base of this shoot immediately proceed the fibres or roots which support the ensuing plant in an horizontal direction. Above these proceed in the same direction, the laterals, or side shoots, which produce the tuber or Potatoo, and as soon as the fibres are sufficient to support the shoot, the original plant is of no further service, the fibres then become the support of the plant. Now, it is evident that the tuber, or Potatoo, receives its nourishment or support from the sap, which passes in the main stem from whence these laterals proceed. This operation is carried on by the ebbing and flowing of the sap, and is caused by attraction and repulsion, which depend upon the alternate action of heat and cold. Consequently, when the atmosphere which surrounds the plant, is at a higher degree of temperature than the soil in which the roots are, then of course the sap is ascending. Likewise, when the soil in which the roots are, is at a higher degree of temperature than the atmosphere which surrounds the plant, then the sap is in a descending motion. Now I am satisfied that it is from this descending current of the sap, that the tuber or Potatoo receives its nourishment, and not immediately from the fibres, or the soil. This is seen, for instance, by cutting off the tops of the Potatoes just below the surface; the consequence is, that the tubers will not grow any more; therefore no potatoes ought to be suffered to remain in the ground after the tops are decayed, or cut down by the frost.

Another very important advantage arising from this mode of treatment, in addition to its insuring the growing of the plants is, that they will be found to produce a crop one-fourth more on an average on the same land, and of a larger size than from the former mode of treatment. This I have proved by experiment to the greatest satisfaction, having had this season from a piece of Ash-leaved Kidneys, managed in the manner before described, such a crop as fully warrants my recommendation of the plan to others. They were planted on the 2nd day of April, and taken up on the 12th of July, the space between each row being twenty-four inches, and the distance from one plant to another in the rows, being ten inches. These rows twenty yards long, produced, besides small ones, four pecks of Potatoes heaped measure, fit for market, some of which weighed twelve ounces, and of the very best quality. The following is a statement of the above produce per acre, or 4,840 square yards of land, produce 1,452 pecks, heaped measure; price per peck at the time of taking up, 1s, the amount, 72l 12s 0d. But besides all this evidence in favour of the system, a friend of mine, a farmer, who has been in the habit of cultivating Potatoes

for the last twenty years, purchased in the spring of 1835, a thousand sacks of the Shaw Potatoe, of a neighbour for the Yorkshire Markets, out of which he collected at the time of delivery a sufficient quantity to plant two acres of land, of those that were green ended, and had become so by growing out of the ground the preceding year. These at the time of planting were put into the ground, adjoining others under the old system in the same field, with the same manure, and on the same day. They were treated in a similar manner in every respect, but from the commencement of their vegetation, (for every one grew,) they were decidedly superior to the others, and at the time of taking up were a much finer sample, and were found to produce twenty sacks per acre more than those adjoining them.

The above statements will I trust, carry with them sufficient proofs of the decided preference of this system to the old one. If the land has not been prepared and manured in autumn, it ought to be done as early in the spring as possible, and the manure should be spread regularly over the surface of the ground before the last time of ploughing, which will by that means become somewhat incorporated with the soil. As soon as the rows are prepared to receive the plants, the Potatoes should be taken from the pie, with as much care as possible, so as not to injure the buds, should they have begun to shoot, then planted in rows ten inches apart, and covered up as soon as possible, that the soil may not become too dry, should the weather be very fine at the time of planting; after which they may be treated in the usual way.

## AGRICULTURAL IMPROVEMENTS.

TO THE EDITOR OF THE YORK CHRONICLE.

SIR,—It has been by far too much the practice of nations rapidly advancing in civilization to consider every change, political or domestic, as an improvement. Now, while we would by no means follow the Medes and Persians in the unalterableness of their once declared laws,—or of Popery, in stamping every thing agreed upon by a certain body infallible,—we would make such changes as the circumstances of the times and the discoveries of knowledge demand or admit; but we would not countenance any alteration merely for the sake of change, where it was of doubtful utility, except it is on so small a scale as to render a failure no serious disadvantage or loss.

So far as agriculture is concerned, the improvement effected during the last thirty years is perfectly astonishing; it has, in fact, changed its first principles. Instead of the casual capricious cropping, rounds of exhaustion and idleness, and its consequences, straggling, stunted, and deficient crops, with weeds choking the corn and plants, we have a system of agriculture formed on some acknowledged principles, though perhaps not carried out to the extent they ultimately may be. We have a crop every year on most of the soils; instead of a naked and idle fallow, we have a produce from the soil alternately in corn and flesh; and the produce of some soils is absolutely doubled. The alternations of turnips,—of clover,—the system of under-draining (where care is taken that it is not *over-draining*),—and last, not least, the use of bone-manure, &c., have enabled the tenants to pay a fair rent for soils which, otherwise, would not be worth cultivation, of rent.—The silicious soils, which so soon decompose and absorb manure, could never be kept in

any degree of order, without the intervention of green crops, as it would be absolutely impossible otherwise to procure a sufficiency of extraneous manure. *These are improvements*; but can we call every new thing put in practice around us by that name, with any degree of accuracy? Can we call the consolidation of the small tenants' holdings, the ruin of his little family, and the destruction of his neat buildings, to make way for the erection of immense cattle-sheds, and splendid stables, an improvement? As well might we say, that the tyrannic and pompous sway of an Alexander, or a Napoleon, over the nations of the earth, was a blessing!

It is very desirable that the true principles of improvement should be distinctly understood, and a line of demarkation drawn, between the real melioration of the art of agriculture and speculative innovation. We may safely lay it down as a principle, that *every thing which increases the production, is an improvement*. Upon this principle, the four-course system is an improvement upon the naked fallow;—bone-manure, upon the incessant dunging;—and judicious draining, upon water-furrowing and ditching. Every increase in the production must increase the farmers' profits, as well as increase his manure, and thus add to his future capabilities: it will give more employment to labourers, in securing and bringing the produce to market, and thus increase his consumption in his family, and lessen the parish burdens; and in a national point of view, it renders us less dependent on foreign supply, and encourages our own trade. Besides, *great production increases future production*. When the crops are heavy, we say the soil is in a high state of cultivation, which is nothing more than being in a state of abundant productiveness—a state which it is easy to maintain, when once attained. The truth is, that the highest state of improvement is when the land is producing the largest amount of produce possible.

It is contended, that every diminution of labour is an improvement. Thus the flail is preferable to the "ox treading out the corn;" and the spade could never effect the turning of the soil which is requisite—we must have the plough to our aid. This is, however, manifestly unsound. The *only* object of decreasing labour is to lessen the price of raising the crops; otherwise, it is immaterial to the farmer. Now, suppose the introduction of *power* into agriculture should be adopted,—vast numbers of hands would be thrown out of employ, and eventually thrown upon the parish; the cost of supporting them in idleness, and its concomitant vices, would manifestly be *added to the expenses of his machinery*, and he thus increases the cost of production, and defeats the very object of his improvements! The folly and madness of agricultural machinery was strikingly exhibited some time ago, in Essex and some of the southern counties, by the introduction of thrashing-machines; the consequent want of employment produced excitement,—riots and destruction of odious machinery succeeded, and incendiary fires followed, to the consternation, alarm and horror of the large farmers, who shrunk horrified from the effects of their own system, which Mr. S. Lefevre recommends as a relief to Ireland!

There is, I admit, some difficulty in determining how far the introduction of machinery for facilitating labour may go, and how far it may not. Much will depend upon the circumstances of the case; when labour is scarce, and almost unattainable, machinery is admissible almost to an indefinite extent. In a country like this, where there is plenty of labour, *it should not go further than immediate necessity demands*. For instance, spade labour, valuable as it

is\*, could never get the whole of the land into a proper state of cultivation for the reception of the seed, from the want of hands.

But, Sir, scores, hundreds, and perhaps thousands, of farmers will read this:—many, perhaps, will feel it to be too true; but it is to be feared few, perhaps none, will adopt the principle, but be guided as interest or circumstances may dictate. "Why should I adopt it," he may say, "let others do it—let me alone;" not considering that if all acted upon this principle, it would never be done. Or some will urge, if they do not employ machinery, others will. Now, the fact is, we should *do our duty*, regardless of others, or we may possibly fall into their errors, and adopt their plans and views, until, like the Essex farmers, we have to repent of it, amidst confusion, desolation, and fire!

W. E. N.

## WEST KENT AGRICULTURAL ASSOCIATION.

### ANNUAL MEETING AND PLOUGHING MATCH.

The sixteenth anniversary of this Association, the parent stock from which several other societies in the county of Kent have sprung, took place on Wednesday, Oct. 26, at Kent House Farm, Beckenham, in the occupation of Mr. Mathews. The day was fine and the company numerous, consisting chiefly of the tenantry and labourers. We observed very few landlords on the ground, a circumstance which seemed to betoken an absence of that personal patronage which we consider it the duty and interest of the influential landowners to afford on such occasions. This deficiency in point of numbers was amply counterbalanced by the attendance of practical farmers and workmen.

The excellent arrangements made by the Committee of Management, by which the extraordinary number of 54 ploughs started and performed the work without the slightest confusion or difficulty, deserve especial notice, and the hospitality of Mr. and Mrs. Mathews, and their assiduous attentions to the comforts of their guests, for whom an excellent luncheon was provided, were universally spoken of in high terms.

The land was a strong loam on a clay subsoil, and turned up rather heavy. The two-horse ploughs were not exactly in their own element although many of them performed their work in a masterly manner, but it was evident that it laid too close to the collar to induce them to wish to make every day work of it. The judges were Messrs. Gladwin, Lewin, White, and Martin, members of the Surrey Agricultural Association.

The work being completed and the judges having determined upon the merits of the respective ploughmen, Thomas Parker, Esq., the Treasurer, assisted by the Committee of Management, and surrounded by a great number of visitors and a large body of workmen, who appeared to take a great interest in

the proceedings, proceeded to distribute the prizes as awarded. He stated that in order to avoid the possibility of partiality, the judges were selected from a considerable distance, and had not the slightest knowledge of any of the competitors and were therefore guided in their decision entirely by the merits of the work performed. This observation called forth a general expression of approbation from the assembled competitors.

CLASS 1.—Two Horse Ploughs: 9 competitors.—1st Premium to James Allen, servant to Mr. Burgh; Plough-maker, Mack and Butler; 3 guineas. 2nd Premium to Henry Winterman, servant to Sir Samuel Scott; Plough-maker, Jefferies; 2 guineas. 3rd Premium to Wm. Walker, servant to Mrs. Johnston; Plough-maker, Butler; 1 guinea.

CLASS 2.—Three-horse Ploughs.—26 competitors.—1st Premium to Jacob Harris, servant to Mr. A. Owen, Plough-maker, Mack; 3 guineas. 2nd Premium to John Hook, servant to Mr. Graham, Plough-maker, Butler; 2½ guineas. 3rd Premium to Wm. Searles, servant to Mr. Tyler, 2 guineas; Plough-maker, Patton. 4th Premium to Daniel Cooper, servant to Mr. Twort, 1½ guinea; Plough-maker, Jefferies. 5th Premium to George Olliffe, servant to Mr. Matthews, 1 guinea; Plough-maker, Mack.

CLASS 3.—No competitors.

CLASS 4.—Turn-wrest Ploughs; 5 competitors.—1st Premium to John Wilshire, servant to Mr. Noaks; Plough-maker, Tinker. 2nd Premium to James Brambleby, servant to Mr. Dowling; Plough-maker, Hartridge. 3rd Premium to Robert Berry, servant to Mr. Selby; Plough-maker, Hockley.—Prize, 1 guinea.

CLASS 5.—For Farmers' Sons; 2 Ploughs.—The judges decided the work of Mr. John Edgerton to be best; but as the rules required that there must be three ploughs entered for competition, no prize was awarded.

CLASS FOR THE CHAMPIONS.—12 competitors.—Premium of 3 guineas and a new hat to John Beckway, servant to Messrs. Wilmott and Co.; Plough-maker, Mack and Butler.

After the business of the day was over, the company repaired to the Bell Inn, Bromley, where an excellent dinner had been provided by the stewards, Messrs. Owen, Morris and Saunders. Upwards of 100 members and friends of the Society were present. John Wells, Esq., of Bickley, the president of the Association, in the chair, and Hugh Johnston, Esq., the vice-president, acting as croupier.

After the usual loyal toasts had been drank, the CHAIRMAN, in an able and appropriate address, gave "Success to the West Kent Agricultural Association."

The health of the worthy president was then drank in the most enthusiastic manner.

Song, "The Old English Gentleman."

Mr. WELLS, in returning thanks, adverted to the early formation of the Association, and commented upon the benefits resulting from meetings of this kind. He expressed in warm and feeling terms the deep interest he took, and ever should take, in promoting the welfare of the Association, and in furthering the interests of agriculture, which he considered to be the foundation of our national prosperity, and concluded by the toast, "Liberal landlords, prosperous tenants, and happy labourers."

Letters were read from Mr. Hodges and Sir W. Geary, the members for the county, excusing their absence both being called upon to preside at similar meetings which took place on the same day.

\* A poor man named James Scrbutt, with a broken leg, being an old pensioner, with an industrious foreign wife and three children has produced from thirty lugs of land, or the third part of a quarter of an acre, rented with upwards of 500 tenants of the Lord Bishop of Bath and Wells, the amazing quantity of eighteen bushels of cleaned excellent wheat, or at the rate of *eighty-six bushels per acre!* besides what the birds stole, and what was wasted in gathering. This is nearly three times the amount raised under plough culture.



The health of "the judges" was next drank.

Mr. GLADWIN, in returning thanks, dwelt with much force and effect on the advantages of an intimate intercourse, and well sustained confidence between the three classes, of landlords, tenants and labourers, as members of one family, having but one interest, that of the whole. He expressed much satisfaction, in which he was joined by the other gentlemen from Surrey present, at the friendly connexion which had been kept up of late between the Kent and Surrey Associations, and which the farmers of Surrey were desirous of maintaining. He spoke in high terms of the general character of the ploughing performed, which he had never seen excelled, and which made it exceedingly difficult to decide between the several competitors.

The health of "the vice-president" was drank, and Mr. JOHNSON returned thanks in an appropriate speech.

The health of the treasurer came next in order. Mr. PARKER returned thanks, and concluded by proposing the health of Lord Farnborough, from whom he had received a fourth donation of five pounds. (*Cheers.*)

At about ten o'clock the President retired, and was greeted with the most hearty cheers, every individual in the room rising at his departure; the vice-president, Mr. JOHNSON was then called to the chair, and Mr. Parker, the treasurer, took the vice-president's seat.

"The Committee of Management," was the next toast given, when Mr. OWEN returned thanks, at the same time taking occasion to observe that although as one of the stewards, he had exerted himself to provide good cheer for his friends, still he should have been much more in his element, had he been superintending the work in the field.

The health of Miss Thrail and the Ladies of Kent was then drank, with "three times three."

Mr. SKINNER stated that he was instructed by Miss Thrail not only to continue her subscription, but also an annual donation towards the funds of the Association.

The health of Mr. Thomas Watson Parker was given, and acknowledged by Mr. Parker, jun.

A great many excellent songs were sung by the professional gentlemen, and the evening was spent in the greatest harmony, all departing delighted with the proceedings of the day.

**SMUGGLED CORN.**—On Wednesday the cutter *St. Anne*, laden with corn, purporting to be the produce of this island, for importation into England, free of duty, and cleared as such for Plymouth, was seized by the officers of the Customs in the harbour of St. Helier, on suspicion that the said corn was partly, if not wholly, of foreign produce, by which the revenue of England would have been defrauded. It appears, that the shipper, Mr. Amy, of George Town, purchased the said wheat from a farmer named Anley, at St. John's parish, and upon information given, that the said Anley had thereby committed an infraction of the law, the constable of St. Helier presented a report against him yesterday to the Royal Court, upon which the Crown-office framed a prosecution; Anley was produced at the bar, but denied the charge, and by means of his counsel, Advocate Hammond, pleaded not guilty. He was admitted on bail in the sum of 200*l*. to appear when called upon. We believe the law passed some months since, provides that upon conviction, the corn shall be confiscated, a fine levied at per cabot, and the offender imprisoned at hard labour, for a term not less than six months.—*Jersey News.*

## SOUTH DERBYSHIRE AGRICULTURAL SOCIETY.

This Society had its first ploughing match and exhibition of agricultural roots, &c. on Thursday week, the 13th October, at Swarkstone. The field for the ploughing was one well adapted to the object, being two years turf, situated on the farm of Mr. Smith, at Swarkston Lows.

Eight ploughs entered for competition; they were drawn by two horses abreast and without a driver. Half an acre of land was staked out for each plough. All the competitors started at a given signal. The first man finished his half acre in two hours and twelve minutes, and all within two hours and a half. The work was performed by each in an excellent manner, and the successful competitors were declared to be as under:—

1st Prize of 3*l* to William Vallance, in the service of the Earl of Chesterfield.

2d Prize of 2*l* to John Sanders, in the employ of Sir George Crewe, Bart., M.P.

For farmer's sons not in business for themselves:—

1st Prize of 3*l* to William Higgin, son of Mr. Samuel Higgin, of Swarkston.

2d Prize of 2*l* to Joseph Steer, son of Mr. John Steer, of Chaddesden.

For farming boys under eighteen years of age:—

Joseph Smith, jun., in the service of the Earl of Chesterfield, seventeen years of age, was the only one entered, and he ploughed his half acre of land in two hours and twenty-nine minutes, in the most workmanlike manner, which excited the admiration of all present, and called forth the great commendation of the judges for his extraordinary skill as a ploughman. A prize of 2*l* was awarded to him.

The field was attended by a numerous company, who took great interest in the progress of the competitors, and the day passed off in a very satisfactory manner.

After the ploughing was finished, an exhibition of agricultural roots took place, and a sweepstakes of five shillings each was decided as under:—

To Mr. Cade, of Spondon, for the best five bulbs of mangel wurtzel.

To Mr. J. L. Hassall, of Packington, for the best five roots of Swedish turnips.

And to Mr. Smith, of Swarkston Lows, for the best five carrots.

Mr. Pearsall, of Foremark, exhibited some mangel wurtzel and Swedish turnips of a very superior kind, highly commended by the judges.

Mr. Cade, of Spondon, exhibited two bulbs of mangel wurtzel, the stems of which had been lopped off on their first showing a disposition to run to seed, and the bulbs had subsequently grown to a great substance.

Mr. Smith, of Swarkston Lows, exhibited eight apples, of the sort he calls *Pomme de Roy*, one of which weighed thirteen ounces fourteen drachms.

Mr. King, of Chellaston, exhibited an onion, grown at Chellaston, of the Portugal kind, which weighed one pound eleven ounces.

But what called forth the greatest admiration from the whole company and the commendation of the judges, were six cattle cabbages exhibited by Mr. J. L. Hassall, of Packington, against which unluckily for him there appeared no competitor. They were the real drum head species; their average weight was forty pounds each. Mr. Hassall liberally gave them to a gentleman who were present to set for seed.

### THE DINNER.

The society and friends dined together at the Crewe and Harpur Arms, Swarkston Bridge, at four o'clock. The dinner was excellent, and did great credit to Mr. and Mrs. Adams. The vension was supplied by Sir George Crewe, Bart., M.P., vice-president of the society, who presided as chairman. Amongst the company present were Sir F. Burdett, Bart., M.P.; H. S. Wilmot, Esq.; E. L. Crewe, Esq.; E. S. Chandos Pole Esq.; Cockslutt Heathcote, Esq.; Thomas Allsopp, Esq.; Roger Cox, Esq.; Henry Tillard, Esq.; J. L. Hassall, Esq. (who acted as vice-president); Mr. Smith, Swarkston Lows; Mr. Parkinson; Mr. Sale,

Barrow; Mr. Draper, and many other members and friends, about ninety in number. Mr. Stokes, of Kingston, and Mr. John Smith, of Donisthorpe, were the judges.

After the cloth was withdrawn, the usual toasts were given.

The CHAIRMAN then drew the attention of the company to the two subjects proposed for discussion, viz.

1st.—“Is the running to seed of mangel wurtzel and Swedish turnips much influenced by the time of sowing, and what are the best methods of cultivating those plants?”

Upon this subject the following letter addressed to the Chairman of the Derbyshire Agricultural Committee was read from Mr. J. L. Hassall, which we have pleasure in giving to our readers:—Mr. Hassall says, “I have grown mangel wurtzel for the last nine years, and have had good crops six years out of the nine; twice I had about half a crop, and once, owing to the weather being so dry that the seed could not vegetate, I had a total failure. I have invariably sown it the last week in April, or the first week in May, and my system has been to dibble it on ridges, about two feet interval, putting a seed in every three or four inches, about one inch deep, and leaving them when hoed from nine to twelve inches apart. I have always had some runners, but they have varied very much in number. This year I have only *forty* in two acres. Some years I have had ten times that number, and am inclined to think it depends more upon the land, the season, and the seed, than the time of sowing. Dry hot land I have found produces more runners than land of a more loamy description, and I have no doubt if transplanted seed was sown, there would be fewer runners, than if the seed was not transplanted, as in the latter, you are very likely to get a portion of seed from runners. I think this argument equally applies to Swedish turnips. I sowed some Swedes the last week in April, and some others the first week in June; the first sown are the best, and there is not one running plant in either of them; they were both sown with transplanted seed, and both crops grown upon rather cool and loamy soil. There is another question still undecided with regard to mangel wurtzel, viz., the propriety of pulling or lopping the tops before you take up the bulb; some persons hold it is injurious to the bulb, others, that this operation causes it to grow larger. With your permission, I will state what little experience I have had upon this part of the subject. The first year I grew mangel wurtzel, the latter end of the summer was very dry, and I had recourse to the above expedient, as food for my dairy cows; commencing about the first of September, I took all the under leaves, and merely left the *pea* in the *upright ones*, but it struck me forcibly that I was *thwarting nature*, and that this mutilation of the top would materially retard the growth of the root; to ascertain this fact, I left six rows completely untouched, the result was, they were decidedly larger than any others. In November, when they were taken up, I was fully convinced I had considerably lessened the weight of my crop, and robbed the bulb of much of its nutriment by taking away the leaves, and I have never had recourse to this practice since. About two months ago I had some conversation with an experienced gardener in the village where I live, upon mangel wurtzel, &c. He observed, “If you wish to have larger mangel than your neighbours, you must cut the tops off.” I asked him his reason; he said, the leaves took that nutriment which the bulb ought to have, and he strongly advised me to try the experiment, which I did in the following manner: I selected three rows, in which I could perceive no difference. The gardener said he thought he could; that the middle row was the best. I cut the tops off six yards of the middle row; this length produced nineteen bulbs, and to-day I have had them taken them up and weighed, and also nineteen bulbs of the two rows, directly opposite, and I find the respective weights to be—of the row with the tops cut off 31 lbs.—the others 40 lbs., and 37 lbs. I then weighed nineteen bulbs of each of the three rows, beginning where the middle row was cut off. The weights were—

the middle row 45 lbs., the other two 39 lbs. and 40 lbs. This is a trifling experiment, but it is quite conclusive in my mind, that if I had persevered in cutting off the tops, I should have had one-third less weight upon an acre than I shall, having let the tops remain.”

Mr. CADE, of Spondon, and other gentlemen, addressed the company upon this question, in appropriate and useful speeches. We have been favoured by the former gentleman with the substance of his remarks, which we incorporate in our report:—“My method,” says Mr. Cade, “of propagating mangel wurtzel is as follows: in the first place, I prepare my land in the same manner as usually done for Swede turnips, with good rotten manure; I plough and harrow it quite level, and don't ridge it; I make with a hoe trenches from half an inch to an inch deep, full two feet asunder, and sow my seed pretty thick and rake it in carefully. Before sowing the seed I steep it in tepid water until it gets soft, or if it is sprit a very little it will be all the better, for if you give it a start out of the hard husk it will go on, but if the weather should prove very dry and the plants do not come up regular, and those that are up do not come on, which was the case this last summer, I then give every row a good watering, almost to saturation, for it is of no use doing it in a slight way, and two men will do with a water cart and watering pans half an acre a day, and once watering, if sufficiently done, will be quite enough. I have before said sow your seed thick, for it is much easier to thin than transplant, for transplanted plants never make such good bottoms as those that are not removed, and leave the plants in the rows nine or ten inches asunder. I have generally sown my seed from the middle of April to the beginning of May, but this year by way of experiment I sowed some in the middle of March, but most of them run, and those that did not run I do not think made any better bulbs than those that were sown later, and those that were sown later not half a dozen in half an acre run. I also topped a few plants that were running by taking off the top about five or six inches above the bulb, and also the side sprouts but not the leaves, and I found they made nearly as good bottoms as those that had not run.”

2nd.—“What are the best means of supplying during the winter and spring, a deficiency of food occasioned by a dry season, or other accidental causes?”

The subject was introduced by a speech from Sir George Crewe, who discussed it at length, and concluded by recommending the strictest economy in the application of the very limited means the farmers had to get through the winter with. Mr. Smith, Mr. Sale, Mr. Hassall, Mr. Stokes, and Mr. R. Cox, also dwelt upon the question under discussion. Cutting and steaming straw was highly recommended as one strong hold of relief.

The Chairman's health, with three times three, was then proposed by E. S. Chandos Pole, Esq., who returned thanks in a very complimentary manner, and shortly after withdrew.

The company shortly afterwards separated, after an evening spent in the utmost harmony and good feeling.

EXTRAORDINARY PRODUCE. — A piece of land, measuring about 1A. 16P., in the occupation of Mrs. Townsend, at Watlingbury, was formerly a meadow, and broken up six years since. It was planted with hops, and the amount of produce within the last four years, has been as follows:—

	1833	1834	1835	1836
Hops .....	16 cwt.	16½ cwt	26¼ cwt	16cwt
Filberts .....	½ cwt	1½ cwt	1 cwt	25 lb.
Apples .....	5 bush	10 bush	20 bush	3 bus
Potatoes .....			20 bush	

This wonderful amount of produce is the more extraordinary, as the land has not been much manured since it has been broken up.—*Maidstone Gazette*.

## REPORT OF THE COMMITTEE OF THE HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND,

*To whose consideration was referred the subject of the General Shows of Live Stock, and the Arrangements and Regulations which it may be expedient for the Society hereafter to establish, with reference to these Meetings.*

The subjoined article from the "Quarterly Journal of Agriculture" states the reasons which influenced the Highland Society in offering premiums for particular breeds of cattle. It will be observed that the "Fife-shire" is excluded. The Society, however, afterwards reviewed its decision and offered prizes for "Fifeshire," cattle, one of which was awarded to the animal which forms the subject of our Plate.—ED. F. M.

The Committee would have been pleased that in the fulfilment of the duty devolved upon them, an opportunity for more frequent meeting and discussion had been afforded; but since it is deemed important that this Report should be presented previous to making the arrangements for the Perth Show in 1836, they will endeavour to submit to the Directors the opinions which their investigations on the subject submitted to them have led them to form.

These Shows have now become a powerful instrument in the hands of the Society, for effecting improvements on the live-stock of this country, and therefore it is peculiarly important that the Society, in the kind of encouragement it is to afford to breeders, should act upon a steady and well-matured system. It is not enough to give prizes for animals exhibited. These prizes should be directed to the end of inculcating sound principles of breeding, and of encouraging the rearing of the best classes of animals suited to the circumstances of the country. It is important that the basis upon which the Society means to found its system of premiums should be clearly explained, so that a unity of proceedings may be observed, and districts applying for General Shows may be at once apprised of the conditions on which the Society's patronage is to be offered. Under this system, steadily acted upon, will be avoided those sacrifices which it has been necessary to make to the prejudices of districts, and in some cases, it may be believed, to the wishes and interests of particular breeders.

A primary question, with relation to this object, is the particular classes of stock, or breeds, as they are called, which the Society will recognize and encourage in their pure state, by the offer of specific premiums.

A classification of this kind is obviously necessary. Premiums could not be offered merely for the best animals, because there could be no standard of comparison between the larger and more cultivated breeds and others, which, though inferior in size and feeding properties, are yet the only kinds which the natural circumstances of the country will permit to be reared. Thus there could be no principle of comparison between a short-horned and a West Highland ox, and yet the latter is the more important staple production of the country, and can be reared in circumstances under which the other could not subsist. In order

to encourage, therefore, the different kinds of stock, which different parts of the country are capable of producing, it is absolutely necessary to divide them into classes or breeds.

Of what are called breeds, the most highly cultivated in this island, and it is believed in Europe, appears to be the Short-horned. This breed, however, is only suited to parts of the country of a certain degree of natural or acquired fertility. But as the breed of the cultivated country, it is deserving of all the encouragement which the Society can bestow. A prominent object, therefore, in all offers of Premiums for the larger cattle, should be the short-horned in its purity.

The next breeds, are those of the more elevated parts of the country, where artificial food can be procured only in limited quantity. Of these breeds the best model, in the general estimation of breeders, is the West Highland. There may be equally good animals, indeed, reared by particular breeders in all other parts of the Highlands, and therefore it might seem that the term West Highland might be abandoned, and the general term Highland substituted. At the same time, the peculiar characters of the West Highland are so well understood, that it seems better, in the offer of Premiums, to retain the term. This breed merits the utmost encouragement that the Society can give.

The next classes of breeds, are those which are superior in size to the true West Highland, but inferior to the finer breeds of the lower country. These form a very mixed class of stock.

Of these breeds, one distinctly recognised by its numbers and the permanency of its characters is the Angus, now extended over the adjoining counties. This is a breed certainly well suited to a large tract of country, and having been cultivated with considerable care, deserves encouragement; and in this class of stock may likewise be placed what is called the Polled Aberdeenshire.

Of nearly similar characters is the Galloway, though it is the production of a different part of the country. In the offering of Premiums, there seems to be no reason for distinguishing these breeds from each other. They may be allowed to compete together, merely giving the Premiums to the best individuals of either breed. It is recommended, therefore, that these breeds be classed together, under the title of Galloway, Polled Angus, and Polled Aberdeenshire; and as thier may be supposed to be generally a considerable number of individuals brought forward, there may be an increase in the number of Premiums offered.

Another breed, distinguished from all the others, is the Ayrshire. In this breed, the attention of breeders has been in a peculiar degree directed to the character which indicate the property of producing milk. By this means, a breed, valuable for the Dairy, has been formed, on which account the Ayrshire will be properly recognised as a distinct breed, and the breeders of it encouraged by the offer of specific Premiums.

In this enumeration of breeds, neither the Fife-shire nor the Horned Aberdeenshire has been included. In the case of the Fife-shire breed, it has appeared to the Committee, that though very fine animals under this name are often reared by the care and skill of particular breeders, yet, that in its general character, the breed of Fife-shire is inferior to what the district is capable of producing; and that, with respect to the Horned

Aberdeenshire, as the interests of the breeders of the district are evidently leading them to rear the hornless in preference, it is not for the Society to attempt, by the offer of Premiums, to revive the cultivation of the other.

The Short-horned, therefore, the West Highland, the Ayrshire, and the Polled breeds of Galloway and the Northern districts, appear to the Committee to be those only which it is necessary for the Society to distinguish as separate classes of stock in their offer of Premiums. All the others, under whatever name, will receive Premiums solely as they are good individuals, without any distinction as to their peculiar designation, being comprehended under the general class of "any breed, pure or cross."

A mean of improving the live-stock of Scotland, may be supposed to be by crossing the native stock with superior males; and since the introduction of the short-horns into the north-eastern counties, this mean of improvement is in active progress. The only cases in which injury may possibly result from this species of crossing is, where a breed of established characters, and suited to the circumstances of the country, as the West Highland, already exists. In this case crossing may destroy the particular character for which the native breed is valued, without substituting another suited to the circumstances of the country where they are to be reared. But in the great majority of cases, comprehending innumerable animals of doubtful breeding, or defective form, there does not appear to be any reason to apprehend that the mixture of the blood of a better race will not produce beneficial results. There is not the slightest reason, therefore, why the Society should oppose itself in any way to a species of improvement, which has produced important effects, and which the interests of farmers are already leading them to adopt all over the country.

The great means of effecting this improvement of the defective stock of the country is the extension of the pure short-horns; and this affords further reason for the Society to devote especial attention to the introduction and diffusion of this breed in the lowlands of Scotland.

In offering premiums for cattle, an important object to be aimed at is encouraging the breeding of animals having a disposition to feed at an early age. Unless animals can be fattened at an early period, they do not fulfil an important condition of a good breed, nor merit especial encouragement by premiums. The committee, therefore, recommend to the Directors, in the strongest manner, to direct the attention of farmers to this essential property of breeding, by limiting in all cases the age at which fat animals shall be allowed to contend for premiums. No premium, it is conceived, should be given for any ox exhibited for symmetry, fat, and weight, exceeding the age of four years. The shows being supposed held in October, this will make the age of all the fat animals exhibited under four, which is conceived to be quite sufficient. The regulation may lessen the number of fat animals exhibited, but it will produce a far more than corresponding effect in causing the really good feeding animals to be brought forward. It may likewise create some disappointment amongst competitors; but it is for the the Society to look not to the wishes and prejudices of individuals, but to the ultimate object, a real improvement in the live stock of the country.

While the Committee express their opinion of the benefits calculated to result from an adherence on the part of the Society to the principle referred to,

yet it appears to be a general wish amongst the breeders who have been communicated with on the subject, that an exception shall be made in favour of breeds reared in districts where artificial food can be procured only in limited quantity, and in which, accordingly, the age of final feeding is retarded. It has been suggested that the age at which fat animals under these circumstances may be exhibited shall be limited to four off in place of three off, implying that the animals shall be under five at the time of the shows in autumn. It appears to the Committee than an exception may be made with perfect propriety to this effect in the case of the West Highland; and that in compliance with the wishes expressed, it may be extended, at least for the present, to the polled breeds of Galloway and the northern counties.

With respect to the particular rules of competition, these have in general been extremely well matured; and there are only two or three points with respect to them to which the Committee think it necessary to advert.

A regulation has existed in all the shows, with the exception of that of Kelso, excluding the stock of England from competition. For this there does not appear to the Committee to exist the slightest good reason. On the contrary this exclusion has an appearance of a want of that liberality which so much distinguishes the Society, and is, besides, attended with positive injury as regards the purposes of these shows. It lessens greatly their interest, and prevents valuable stock from being brought into Scotland. Had it not been for this regulation, it is understood that distinguished breeders in Northumberland and North Durham were prepared to bring forward stock both at Stirling and Aberdeen. Were there no other purpose served, therefore, than to produce to the farmers of Scotland examples of superior stock, there would be reason for rescinding this regulation. But, besides the purpose of useful example, the inviting the co-operation of English breeders in these shows is eminently calculated to excite emulation, and to lead to the introduction of good stock into the country.

There are two or three minor points in the regulations which the Committee may notice. Competitors are excluded from gaining more than one prize in the same class of stock. It appears to the Committee, that there does not seem to be any good purpose served by this regulation, and that it is attended with practical inconvenience, when the same individual has really the merit, as sometimes happens, of gaining two premiums in the same class.

Another point relates to a regulation which, it is believed, was adopted in consequence of a circumstance connected with the premium bull at Kelso, not at all likely to recur. Proof is required that the bull has previously got stock; now this limitation seems to be quite unnecessary. The chance of a young healthy bull not being able to get stock is not worth calculating upon, while the effect of the regulation may be to exclude from competition the finest and most promising young bulls than can be reared. It is thought that it will be sufficient in any case to allow the judges to make such enquiries with regard to the getting of stock by the bulls as they may think proper.

The Committee have referred to the particular breeds of cattle, which it seems necessary or expedient to distinguish. With respect to sheep, less difficulty presents itself than in the case of cattle.

There are three distinct breeds of sheep in Scotland, proved by experience to be well suited to the particular circumstances under which they are placed.

There are, for the low and cultivated country, the New Leicester, and for the elevated or highland parts, the Black-faced and Cheviot.

With respect to the New Leicester, the same remarks apply as to the short-horned cattle. They are as yet unrivalled as a breed for a low and cultivated country, where artificial food can be produced. The cultivation of superior sheep of this kind cannot fail to promote other improvements, by inducing proprietors to erect necessary inclosures, and the tenants to extend and improve their means of feeding. For which reason the Committee entertain no doubt that the attention of the Society will be directed to this valuable class of stock. There is, in this respect, ample scope for encouragement and improvement; for it cannot be concealed, that, over the greater part of Scotland, the management of the finer kinds of sheep is either unknown or extremely defective.

With respect to the Cheviot and Black-faced breeds, the interests of breeders will lead them to select the one or the other as they are most suited to the particular circumstances of the district or farm. The province of the Society appears to be, to award premiums, as hitherto, to the best individuals, male or female, of the respective breeds, and thus to encourage the maintaining of them in their purity. There appears to be little useful purpose served by holding out premiums for crossing these breeds with each other, and much less with the larger breed of the lower country. The latter species of crossing may be advantageous, with respect to a first cross to be fed off, but in rare cases as a general principle of breeding.

The South Down breed has not been included in this enumeration. Admirable as this breed is in the Downs of the southern counties, and in various districts of England, to which it had been carried, it appears to be very partially adapted to the circumstances of Scotland. Wherever the South Down could be cultivated in Scotland, the New Leicester could be reared; while for a mountainous country, it does not possess the hardy properties of the native breeds.

It has appeared to the Committee, with relation to the awarding of the premiums both of cattle and sheep, that a smaller number of judges might act for the different classes of stock. Two, it is conceived, with power to call a third as umpire, would be sufficient in any case.

The Committee have had their attention directed to the defective information which generally prevails among breeders of sheep in Scotland with respect to the relative qualities of wool. This may be mainly ascribed to the circumstance, that the wool-staplers of the great manufacturing districts of England purchase upon the large scale, often without thinking it necessary to vary their price in the case of particular parcels on account of the difference of quality; by which means a certain inattention is occasioned on the part of the producers to the quality of the material. This perhaps is an evil inseparable from the nature of the wool trade, as it is now established. But yet it is thought that the Society might beneficially direct the attention of farmers to the subject; and to this end it is recommended that premiums be offered at the different shows for samples of wool, divided into the following classes:—

1. Combing wool, the produce of the New Leicester.
2. Short Wool, the produce of the Cheviot breed.
3. Wool, the produce of the Black-faced breed.

The Committee have every confidence that a steady

adherence to the principles laid down will meet with the concurrence of intelligent breeders, and promote the efficiency of these important Stows.

*Highland Society Hall,  
Edinburgh, Jan. 30th, 1836.*

### SMITH'S SUB-SOIL PLOUGH.

The third Report of the Parliamentary Committee, on "the state of Agriculture," recently published, contains a description of the vast advantages derived by heavy clay soils from the use of a *New Plough*, used for piercing or guttering the under-crust or sub-soil, in addition to draining. Land which would not produce 20 bushels of wheat, has since produced 40 bushels per acre. The following evidence was given on the 8th of June last:—

#### MEMBERS PRESENT.

Mr. Shaw Lefevre.	Mr. Evans.
Mr. Attwood.	Mr. Sandford.
Lord Viscount Howick.	Mr. Wodehouse.
Mr. Cayley.	Mr. Bingham Baring.
Mr. Heathcote.	Mr. Clive.
Mr. Loch.	Mr. Miles.
Mr. Dunlop.	Sir Robert Peel.
Mr. Young.	

*James Loch, Esq.*, a Member of the Committee, called in, and examined:—

Have you received any communication from Scotland with reference to the system of sub-soil ploughing, which you think it advantageous to communicate to the Committee?—Yes, I have received a letter from Mr. Kennedy, who formerly sat for the Ayr Burghs, which I will lay before the Committee, detailing his own experiments on that point; it appears to me that it exemplifies very thoroughly the advantages of the sub-soil plough of Mr. Smith, of Deanston.

Memorandum by *T. F. Kennedy, Esq.*, of *Dunure*, respecting his experience of the system of DRAINING and SUB-SOIL PLOUGHING, recommended by *Mr. Smith, of Deanston*, in the County of *Stirling*.

May, 1836.

I have practised Mr. Smith's system of draining and sub-soil ploughing upon my farm, in the county of Ayr, during the last three years, and the result has fully justified every anticipation of benefit. It is applicable to all soils not rocky, which have not an *absolutely porous sub-soil*, the great object being, that the sub-soil should be rendered *artificially porous*, and that all rain water should sink on the spot on which it falls, and that no running of water should take place on the surface.

There was at the outset considerable difficulty in having the work executed; it was arduous, and those engaged in the superintendance and labour were adverse, because they did not see the principles of the system, or the advantages which were likely to arise. A little encouragement and a distinct intimation that there must be perseverance, overcame every difficulty. This observation applies to the sub-soil ploughing, while some difficulty attached to perfect execution of the drains, in having them made of the full depth of 30 inches, and filled neither too much nor too little, and with all due care in all particulars which must be attended to, to secure permanence in the effects. I have invariably made the drains twelve feet apart, in order to secure the effect being complete; and being much impressed with the folly of spending a considerable sum per acre in the operation, and still failing to obtain what I may term perfection in the system, I have also used

broken stones as the material, when they could be obtained within such a distance as to prevent the expense of cartage being excessive; in other cases, I have used tiles, with a layer of three or four inches of stones or gravel over them. When stones alone were used, the drains have been uniformly 30 inches deep, leaving 16 inches for the operation of the plough, and the sub-soil plough; where tiles have been used, the depth has been about 24 inches, the same depth for the ploughs being left as in the other cases. A crop of oats has generally been taken after the drains have been executed, and the land has been comparatively dry; but even the visible effect has been very imperfect until the *sub-soil plough has been applied*. By means of this plough the whole obdurate undercrust of the soil has been broken up, and all water has instantly escaped, and after six or eight months of the alternations of heat and cold, wet and dry, a most remarkable change has appeared in the condition of the soil; what was before obdurate and retentive, has become comparatively mellow and friable, and the longer the time since the operation has been performed, the greater has been the perceptible progressive effect. The operation of the sub-soil plough has produced cracks and crevices and interstices to the depth of 16 inches, through these the rain passes off with rapidity, and these crevices are immediately filled by the air of the atmosphere, and during dry and hot weather these cracks and crevices are multiplied to an indefinite extent, and in *clay soils* to an extent quite remarkable. Instead of resuming its original tenacity, there seems to be a decided change effected in the character of the component parts of the land to the depth the plough has reached. It is for the skilful farmer to apply manure judiciously according to the state of each field. Drilled green crop has followed a crop of oats, and the land which before was unfit to grow *turnips* has become fitted for that crop, although, perhaps, a little rough and cloddy during the *first year*. Next has come a crop of wheat, and in it has been seen the great and remarkable effects of the system in the condition of the soil and the quality of produce. Land which was before, in truth, unfit to carry wheat from extreme wetness, has become altogether the reverse, being sown with wheat without ridges and furrows, being perfectly porous; all rain disappearing as it falls, and being carried off by filtration to the many drains, and each drain having little more than a thread of water to carry off. Possibly the land of which I speak might have previously yielded a precarious produce of 20, or at the most 24 bushels of wheat per imperial acre, while in its improved state, the actual produce of the crop in 1835 has been 40 bushels thrashed out, a few bushels of which was not very good in quality, owing to what is now to be mentioned. The fault of the crop was, that it was too strong, and there being much rain while it ripened it was laid down. Had this not occurred, the quality of the whole would have been good, and there is no doubt that six or eight bushels more per acre would have been obtained. The facts, therefore, are most satisfactory, because the result in the first wheat crop may truly be said to be 20 bushels of wheat of *extra* produce, in return for an expense of 10l 10s per acre, which was the cost of the drainage and the extra expense of the subsoil ploughing. It ought to be stated, that with the turnips the land was well manured and subsequently limed abundantly. After the wheat was carried, and during the winter, the field was ploughed about nine inches deep with the ordinary plough, and remained rough until the month of March, the whole rains of winter, which were excessive, sinking as they fell,

Towards the end of March, the field was harrowed, drilled and sown with beans, without any manure. The crop is promising, and there can be no doubt that the powers of the soil which have now been brought into action, will render it abundant. The soil is so powerful, that it is intended to take a crop of wheat after the beans without any manure, but taking care to make the land perfectly clean, and there is little doubt that the wheat crop of 1837 so treated will be more productive than that of 1835, because it will be less superabundant in straw and incur less probable injury from being laid down.

I have selected one field, respecting which to state this progress; I might say the same of all the others which have been similarly treated so far as they have advanced in their progress. I have as yet no experience of grass, as the tillage has hitherto been carried on, and I am persuaded that beyond one year it would be injudicious immediately to introduce grass into the rotation upon land which was naturally so retentive, because it might have a tendency to revert to that condition. I am equally however of opinion, that a rotation of six or eight years would *totally alter the permanent character of the soil*, and after such a period of continued cultivation I have no doubt that very fine pasture might be established upon a soil which was before incapable of bearing any but the most worthless.

My experience on a moderate scale leads me to say, that the system is the greatest discovery which has been made in agriculture, (because it is applicable to soils hitherto almost intractable and most expensive to cultivate) provided it be applied only where the altitude justifies the undertaking, by securing a climate suitable to valuable crops. It, in truth, converts almost the *worst* into the best land, that is, the most powerful in respect of production, because the quality of land to which it is applicable, the heavy clays and retentive sub-soils, will yield heavier crops after such treatment than the lighter loams and many of those varieties of soil which hitherto have been so pleasant to the agriculturist to cultivate.

The reformation which the system effects on lands which previously were looked on as hopeless is quite surprising, and no one believes it until it is seen; but again I say, that the whole success depends on the *perfect and complete* manner in which the operations are executed, as any thing merely being an approximation to the system will end in disappointment. The expense of what is perfect must not be grudged, and as surely as it is liberally given will it be *abundantly repaid*. I would also say, that the effects of draining and sub-soil ploughing are dependent on each other; the one is comparatively worthless without the other; the ploughing would be thrown away without the previous draining, and the draining is a poor improvement compared to the combined effect with the sub-soil ploughing.

A remarkable effect is, that the harvest is considerably earlier on land so treated than on the same land in its previous state, and it is scarcely necessary to remark, that there will be a constant return for the same seed and labour and manure far greater than when they are applied to land in a naturally wet condition.

I do not think that any thing more useful could be done than that agricultural associations should offer premiums, such as to induce persons to make an experiment of this system; if such premiums were continued for a few years, they might speedily be discontinued, as the *ample repayment* which would arise from the system itself would be the best security for a continuance of the system throughout the kingdom.

## GENERAL AGRICULTURAL ASSOCIATION FOR AYRSHIRE.

The following is an extract from the Report of the Quarterly Meeting of the Directors of the Association, who met in the Court-House here on Friday, Nov. 11, for the purpose of determining as to the number and description of the premiums to be awarded at the next great show at Maybole in 1837;—to fix the premiums to be awarded for agricultural and other implements shown at the great exhibition in September last, and afterwards tried at Rozelle, in the presence of judges appointed by the Association, and to transact any other business connected with this useful Association:—

The Secretary read the report of the judges appointed to examine the implements exhibited at the September Show in 1836, and some of which were afterwards tried at Rozelle, in a field, the use of which was handsomely given by Mr. Hamilton. We make the following extracts from the judges' report:—

I. Subsoil Ploughs, on the model of Mr Smith's, of Deanston, Plough.

Nos. 1, 2, 3.—Exhibited by Mr. Hamilton of Rozelle, Mr. Kennedy of Dunure, and Mr. Ritchie of Cloncaird. These are all heavy ploughs, and very much of the same description. The judges admired their powerful operation, but cannot recommend them to the practical farmer on account of the great expense which they would cost him. Mr. Kennedy's plough was wrought with four horses, while the other two were drawn with six; but it was observed that Mr. Kennedy's four, although very strong animals, were considerably distressed.

No. 4.—Exhibited by Mr. Tennant, Shiells. This plough, which is of a lighter order, was wrought with two horses, and was considered a very great improvement in point of economy. The implement, however, did not keep steadily in the soil, and was considered not to be in good order. But the judges are, notwithstanding, of opinion, that if wrought with three horses it would keep the ground, and do its work well.

No. 6.—Made and exhibited by Mr. Begg, smith at Muirkirk. The judges are unanimously of opinion, that of the six ploughs exhibited, this is the one to which the premium falls to be awarded. It exhibits a very skilful improvement upon Mr. Smith's plough—the result being that, while much of the weight is taken away, the whole power of the implement is retained. Upon the occasion of the trial, it was worked with four horses, which did not appear to be in the least distressed, and the judges doubt not that, in some soils, three horses would be found sufficient. The judges consider that Mr. Begg has much credit by so excellent an improvement upon this valuable implement.

The judges cannot leave the subject of subsoil ploughs without expressing how deeply the people of this country are indebted to Mr. Smith, Deanston, as the inventor and prover of these most valuable implements.

No. 9.—Machine for sowing grass seeds and clover, exhibited by Mr. Tennant, in Shiells. It having been ascertained that this machine has been used with great advantage by Mr. Tennant, for the last twelve years, the judges now earnestly recommend it to the general notice of the members. The price is only 3*l.* or 4*l.* They beg leave further to remark, that in many counties in

England, no seed is sown with the hand, but all by machines; and the general opinion there is, that grain sown in this way springs much more regularly than when cast with the hand.

No. 10.—Presser, exhibited by Mr. Hamilton, Rozelle. For a proper description of this valuable implement, so little used in this part of the country, the judges cannot do better than refer to the following communication made to Mr. Hamilton, by Mr. Graham, sometime overseer to Captain Barclay, thereafter laudgrieve to the late Earl of Cassillis, and now residing at Yonderton, Dalrymple:—

“Yonderton, 3rd October, 1836.

“Sir,—In consequence of having seen your furrow presser tried on Saturday, and having for these last four years known its great usefulness to the farmer, I have taken the liberty of enclosing a note of a few of the advantages for your consideration—having often proved them myself. I shall have pleasure to lay them before any farmer, who has not yet had an opportunity of knowing them. I was so anxious some years ago to have the presser introduced in Ayrshire, that I took a plan of ours and forwarded it to Mr. McClymont, along with observations recommending it, but I suppose the want of the models for the castings, or the distance the farmers would have to send for one, has prevented the presser from being introduced until you have done so. Our joiner has the models, and he also has made many of them to the farmers in Aberdeenshire, &c. who are now reaping the benefit; and I believe he could send them to Glasgow for about 4*l.* each, so should any gentleman wish one, I could cause it to be forwarded.

“I did not mention in my observations, the effects of the presser on loose deep soils, which are apt to throw out the plants. By pressing such soils, while ploughing, and by rolling well after sowing, a good crop is generally insured. *Rolling well* is also of great advantage to the farmer.—I am, &c.

(Signed) “A. GRAHAM.”

The furrow presser is of the greatest advantage to the farmer, for the following reasons:—

“In all old grass land to be broken up, it is impossible for the plough to lay it so closely over as it ought to be, in consequence of the old foggage, and rough surface upon it; but by applying the presser, the furrow is so firmly pressed and closed up, and the rough fog and grass so completely covered in from air, &c. that instead of growing up among the crop, and causing the greatest foulness in the land, it rots away and acts as a manure to the crop, and leaves the land perfectly clear.

“Old rich pasture land, or even clover lea, ploughed up for cropping, is very apt to be destroyed by the grub and wire-worm; but when pressed, not a particle of turf is raised with harrowing, to harbour the eggs or insect under it (and it is always under the clod or turf in lea that these insects are found;) but never having seen a field that was pressed destroyed by wire-worm or grub, and having seen such destruction in unpressed fields by these insects, I am satisfied that the eggs must either be destroyed in pressing, or that by the land being so consolidated, they are allowed no shelter, and prevented from committing their ravages.

“In stiff clay and damp soils, lea land is never so closely ploughed as to prevent a quantity of the seed going down the back of the furrows, which either perishes, or comes up in an after-growth; but by applying the presser, this is completely obviated, and also a great quantity of seed saved.

“In giving the fallow land the seed furrow for

wheat, &c., where the dung has been applied, in such cases the dung is often rough (being made after the turnip dung), and cannot be so well ploughed in as it ought to be; but by applying the presser it is completely covered under, and neither exposed to the sun, nor torn up by the harrow while sowing. The presser will also have the same good effect where sea-ware is applied for a manure.

"When a field is to be sown down with grass seeds, by being pressed the grain is caused to braid so neatly in rows, that the grass seeds are sure to take well, as more air gives them a decided advantage.

"From the above hints, the experienced farmer will easily estimate the great advantages derived from pressing land. Captain Barclay of Ury, one of the most extensive, experienced, and enterprising gentleman farmers in Scotland, never allows a handful of grain to be sown without previously pressing the land. A single horse will draw a presser after two ploughs, and must be going along with them. Pressed land, and particularly lea, is so easily harrowed, that the farmer requires no extra strength, but, on the contrary, there is a great saving of labour. (Signed) A. GRAHAM."

The judges after fully considering the above observations, and having also seen the presser at work, and heard Mr. Hamilton's statement as to the successful use of it by him during the two last seasons, have no hesitation in recommending it as a most excellent and useful implement, and one which the farmers of this country ought generally to be possessed of.

No. 28.—A simple method of cutting straw into chaff by a common thrashing machine, exhibited by Mr. Alex. Reid, Bonshaw. The judges report that they consider this a very ingenious instrument, and its value is increased in consequence of being perfectly simple, and within the reach of every farmer. The cutters are placed diagonally across the drum of the thrashing machine. Specimens of oat and bean straw cut by this machine were exhibited to the meeting—the pieces of straw were from a quarter of an inch to three inches in length, but Mr. Reid said, "you can cut the straw as short as you like by feeding the mill slowly." The invention was commended; and Mr. R. explained that the straw was cut after the grain was thrashed, and that one horse was sufficient to work the mill while the straw was cutting.

CORN SCYTHES.—A good many remarks were made on the utility of the corn scythes, now pretty generally used, and that of Messrs. Drummond, of Stirling, and the American one, were highly spoken of. Some members thought scythes were susceptible of yet greater improvement. It was stated that the scythe was getting into favour with agriculturists, and an opinion was expressed that it would soon become a greater favourite. Mr. Hamilton mentioned, that in company with our agriculturists, he had lately seen five or six different kinds of them tried on Mr. Fulton's farm of Balig, and with Drummond's one the stubble was cut quite close, and smooth as a gentleman's lawn. Captain Dundas spoke in approving terms of the corn scythe, and stated that the whole of Colonel Kelso's crop had been cut by that scythe this year.

EXTRAORDINARY YIELD OF BARLEY.—Ninety-nine quarters of barley, weighing 16 stone with the sack, and which was sold at 2 guineas per quarter, has been obtained from ten acres of land on the Lincolnshire wolds, near Spilsby, the last harvest.

## FLINTSHIRE AGRICULTURAL SOCIETY.

To all those interested in or connected with the agricultural prospects of the spirited little county of Flint, a great treat was afforded on Wednesday Nov. 2, at the annual meeting and exhibition of stock. The day, considering the late period of the year, was very fine, and the attendance in the shev field at twelve o'clock, numerous. After viewing the stock, the committee and other influential members of this society retired to transact the general business of the institution; that being over, about eighty gentlemen sat down to dinner, at four o'clock, amongst whom were:—The President, C. B. T. Roper, Esq., Lord Kenyon, Lord Mostyn, the Hon. E. M. Ll. Mostyn, M.P., the Hon. Lloyd Kenyon, the Hon. Major Napier, Leeswood Hall, the Hon. Mr. Price Lloyd, Sir S. R. Glynne, Bart., Rev. C. B. Clough, Mold, Rev. Henry Jones, Northop, Rev. Henry Glynne, Rev. W. M. Williams, Flint, Rev. Mr. Hill, Broughton, J. W. Eytton, Esq., Leeswood, W. J. Bankes, Soughton, Wilson Jones, Esq., M.P. Hartsheath, Col. Phillips. Rhual, Edward Pemberton, Esq., Plas Isa, J. Taylor, Esq., Coed du, Edward Bate, Esq., Kelsterton, Thomas Lewis, Esq., Highfield, Doctor E. T. Hughes, Mold, John Dawson, Esq., Gronant, W. T. Ellis, Esq., Cornist, John Sisson, Esq., St. Asaph, S. Hancock, Esq., J. Hancock, Esq., Mold, Mr. Hughes, Abergele, Mr. James Kerfoot, Vaenol-bach, Mr. Bloor, Marsh, Mr. Jenkins, Mold, Mr. Williams, Mold, Mr. Thomas Jones, Northop, Mr. John Williams, Holywell, Mr. Vickers, Holywell, Mr. John Williams, Gwsany Hall, and several others. Mr. Robert Peters filled the office of Vice-President. M. Scotson of Toxteth Park, and Mr. Slingsley of Liverpool, were Judges of the stock. Mr. Palin, of Stapleford Hall, Judge of crops. Mr. Hugh Hughes, of Tyddyn, and Mr. T. Williams, of Celyn, were Judges of ploughing.

After the company had partaken of an excellent dinner, and the cloth was removed

The PRESIDENT gave from the chair, the following toasts in succession, which were drank with applause:

The King; the Queen; the Princess Victoria, and the rest of the Royal Family.

The CHAIRMAN then, in a neat speech proposed—"Success to the Flintshire Agricultural Society," which was drank with loud cheers.

The SECRETARY then read the different awards of the Society's premiums: several announcements in which elicited marked applause.

The following toasts were then proposed, the President introducing each with appropriate observations: "Lord Kenyon," received with cheers.

LORD KENYON returned thanks, and after some interesting observations, upon the utility of such societies, concluded by proposing—

"The health of Mr. Trevor Roper, the President."

The PRESIDENT briefly returned thanks, and proposed Lord Mostyn. His Lordship acknowledged the toast. The President then gave in succession—

"The Members for the county." The Member for the Borough, Sir S. R. Glynne, Bart.," both received with applause. "The Bishop and Clergy of the Diocese."

The Rev. C. B. CLOUGH, vicar of Mold, returned thanks on behalf of himself and the Clergy of the Diocese, and hoped the new Act for the Commutation of tithes would not make the clergy and the agriculturists worse friends.

"The health of W. J. Bankes, Esq., Soughton," followed.

Mr. BANKES briefly returned thanks. The next toast was "Wilson Jones, Esq., M. P." (Applause)

"The Judges of Stock" were next given.

Mr. SCOTSON, on behalf of himself, and Mr. Slingsley, begged to acknowledge the compliment,

"Mr. Palin, Judge of Crops," was then given.

Mr. PALIN returned thanks, and proposed the health of the

"Unsuccessful Candidates."

The toast that followed was—



“ Mr. Hughes and Mr. Williams, Judges of the main ploughing.

Mr. HUGHES returned thanks in an appropriate speech, after which was given—

The Secretary, Mr. Thomas Whitly.

Mr. WHITLEY spoke at some length, and assured the members of the Society, that so long as he had the honour of acting in their service as Secretary, he would do all in his power to further the interests of the Society, and to promote the regularity of its proceedings. He then stated that he had received several communications from the Doncaster Agricultural Association, upon the subject of gorse or furze, as fodder for horses and cattle. He said the Doncaster Society had issued a circular, containing a series of ten printed questions upon the subject, which, with the leave of the President, as it would occupy but very little of the time of the company, he would read. The questions are, 1st—How long have you used gorse or whins, as fodder for animals, and whether partially, or for your whole establishment? 2nd—What animals do you consider it to suit? 3rd—In what quantities, and whether alone or mixed with other fodder? 4th—By what machinery is it prepared for use? 5th—In what manner is it cultivated, and at what age, and in what manner cut for use, with the average produce? 6th—Is the plant you use the common whin or gorse, or any particular variety of it? 7th—On what soils do you grow it? 8th—What do you consider the peculiar advantages, and what the dangers, of using it? 9th—State the expense of cutting it in the field, and of bruising for use? 10th—State any general observations on the subject?

Mr. W. observed, the foregoing questions were put to agriculturists generally, with the view to ascertain, in the best manner possible, the properties and cultivation of gorse, as adapted to the barren and poorer soils in Yorkshire; and he had no doubt there were several influential and intelligent gentlemen then present who, he hoped, would further the intentions of the Doncaster Association by answering those questions, or by furnishing any other information upon the subject which they might possess, by addressing their communications to the worthy Secretary of the Society, Robert Baxter, Esq., of Doncaster.

“ The Vice-President, Mr. Peters,” was the next toast.

Mr. PETERS briefly returned thanks.

“ The President elect, Captain Morgan, of Golden Grove.” (*Cheers.*)—“ The Vice President elect, Mr. Hughes, of Tyddyn,”

was next proposed, and the company separated, after spending a most agreeable evening.

In the show field, Mr. Cartmel, of Liverpool, exhibited some agricultural implements of great utility, and of new invention. Mr. Dodd had on show two large ox cabbages, and Mr. Secretary Whitly some garden turnips of the white stone kind, one of which measured *thirty-eight inches* in circumference.

THE POTATOE HARVEST.

Severe as was the threatened loss on the potatoe crop, occasioned by the failure of the plants in the early part of the season, it was inconsiderable compared to the heavy damage arising from the recent frosts and storm. Since Tuesday afternoon the farmers have been engaged with the utmost activity in endeavouring to put the small remaider of their damaged crops beyond the reach of harm; and as we have instituted very minute and extensive inquiries on the subject throughout the greater part of the midlands of Perthshire, we may state the following as the results:—The spring failure appears to have diminished the weight of the crop over the whole county by somewhere about a third or fourth of what, under ordinary circumstances, it might have been expected to be; so that if it had been well got in, it would just have been about this proportion behind an average one. About one-sixth of the potatoes may be said to be taken up before the storm of the 26th, so that this is the state of that portion so secured. Of course these computations are a little vague, and must be taken in certain cases with some small latitude. We can state, we think, definitely and distinctly, from results obtained connected with that portion of the crop dug since the storm, that about one-third of the potatoes in the ground have been utterly destroyed by the frost, and that at present there is not over the country above one-half an average crop of sound potatoes. The Perthshire red, and one or two other varieties prevalent in this quarter, have a tendency to grow towards the surface, so that many of them at the top of the drill are washed quite naked by severe rains. Those so exposed have of course been completely destroyed. The snow on Friday evening fell so softly and gently, that it would have afforded considerable protection, but unfortunately the frost and wind of Saturday morning caused it to drift off the drills, where it was required, into the furrows and hollows where it was of no service. The natural anxiety felt by the farmer at this late period of the season to be as speedily as possible out of reach of further damage is itself productive of some evils. The eager haste with which the potatoe digging has been set about has in some cases not waited till the frost was out of the ground, and so exposed a part of the potatoes to an necessary risk, which might have been safe if left a little longer under the soil, and, at the same time, occasioned the confounding of those which were with those which might not be damaged. In any circumstances, it will be difficult to make a good gathering this season, whatever the weather may prove. No care, and no amount of supervision, will insure against many sound potatoes being left on the field where so many unsound ones, in aspect so little differing from those that are uninjured, must be thrown aside, and where a single frosty night will render the whole equally useless. In like manner, not a few of those which are damaged are apt to be stored, and must materially injure the whole heap. We find that our speculations of last week in reference to the convertibility of frosted or rotten potatoes into perfectly good and valuable starch have already been realised in the neighbourhood, and that the quantity of starch is but little diminished and its quality hardly injured by the decomposition occasioned by frost or rotting.\* There is a fact well

CONSUMPTION OF MALT BY THE PRINCIPAL BREWERS IN LONDON.

The following is the Consumption of Malt from the 10th of October, 1830, to the 10th of October, 1836. (From Excise Returns.)

	1831.	1832.	1833.	1834.	1835.	1836.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
Barclay, Perkins, & Co.	97198	96812	93175	92674	106190	107786
Truman, Hanbury & Co.	50724	58512	54497	74942	78088	89089
White, Cad and Co. . . .	49713	53541	50067	49105	55209	53693
Combe, Delafield, & Co.	53109	11420	10810	14318	49430	49830
Reid and Co. . . . .	24684	6948	34670	14210	36922	41768
Calvert and Co. . . . .	30525	32810	31433	31460	33253	30858
Meux and Co. . . . .	24339	22360	20718	26161	24371	30639
Hoare and Co. . . . .	24102	26821	25497	29736	31525	32273
Taylor and Co. . . . .	21845	21735	21115	20855	23550	21970
Elliot and Co. . . . .	19444	20061	19899	25069	25725	28581
Donaldson and Co. . . . .	8416	7697	7546	8679	8790	9238
Tickell . . . . .	9124	5331	5113	5294	5218	

\* Since writing the above, the subjoined note has been sent us by a Doune correspondent. The statement it contains is not only a valuable practical corroboration of our views, but affords a proof of the length of

worthy of the attention of those who manufacture starch from sound potatoes which we have not observed in any scientific work, but which we have obtained from a gentleman of much experience in the manufacture, and the minuteness and accuracy of whose observations may be fully relied on. It is this, that newly dug potatoes will yield about twice as much starch as those which have been kept till far over in the season. On the latter of these the experiments of Thomson and Einhoff seem chiefly to have been made, and consequently, the results of their experiments seem to set the quantity of starch (about 15 per cent.) somewhat too low. The explanation of this diminution of the quantity of starch may be, that as this substance is easily decomposed and converted into sugar (a process on which the whole theory of malting depends,) this decomposition has taken place by the spring or summer—the sugar, which is soluble, is easily washed out, leaving behind it that sweetish taste by no means in general relished at table. The structure of the potato and its starch cells may be very easily observed by a microscope of the most ordinary magnifying powers and are equally beautiful. The fibrous matter is arranged in a reticulated form, in the little cells of which may be seen the flattened spherical portions of the starch shining like bright and half-formed seed pearl.—*Perth Constitutional.*

#### SCARCITY OF KEEP FOR HORSES AND CATTLE.

—The high prices of hay and the failure of the turnip crop in many districts will render the approaching winter and the early part of next spring trying periods to the farmer for the sustenance of his stock; it therefore may be useful for those who have plenty of furze or gorse growing on or near their farms, to learn that when gathered and properly prepared, it forms a most nutritive and excellent food for horses, cattle, and sheep; we know that in the early part of the winter of 1813, when the British army were in the Pyrenees, the horses of the light cavalry were subsisted

time which potato flour may be stored and kept without injury. Were any enterprising person to purchase the after-gatherings of the spoiled potatoes over a large tract of country for the purpose of manufacturing them into starch, he need entertain no fear of glutting the market, as the starch could be kept for any number of years, and sold out so as to meet the demands, and keep the prices remunerative:—

Sir,—In your agricultural report of the 1st November, I observe an excellent suggestion as to making potatoe flour from spoiled potatoes. On that subject I can give the following fact:—Exactly forty years ago, a potato field on the banks of Loch Lomond was flooded; the water having subsided, the potatoes were partially lifted, but found, as generally supposed utterly useless. An intelligent lady had a large quantity of the spoiled potatoes put into tubs full of water and mashed, when the usual proportioned quantity of flour, in every respect equal to that made in the common way, was found at the bottom. It was used in all the different culinary purposes to which that article is applied, and found perfectly wholesome. I have now in my possession a small packet of that flour quite perfect, presented by the lady under whose instructions it was made. It may have escaped general notice that the mode of separating the farinaceous from the fibrous part of the potato, in the usual process of making potato flour, is neither more or less than by rotting the fibrous part by the action of water.

Yours, AN OBSERVER.

for many weeks on gorse gathered by the men and chopped fine with their sabres; the animals got fat on the food, and continued in excellent condition for sere vice. The gorse should be gathered, and chopped find with a cleaver, or placed in a cider or other mill on ground, so that it may be bruised, and the prickles rendered innocuous, and then given to the stock, with a little salt added, or mixed with chopped straw, in the proportion of 100 lbs of bruised gorse to 8 or 10lbs of straw. In some parts of Wales there are mills (worked by small rills of water) for bruising the gorse.

LORD PALMERSTON AS A LANDLORD.—It is well known that Lord Palmerston, the noble and liberal Foreign Secretary, possesses a large estate in the county of Sligo. But it is not equally well known that he expends nearly the entire rental of that estate in improvements, and constantly employs his tenantry in the most useful works. He is consequently beloved by them, and considered, as he really is, one of the best landlords in Ireland.—*Sligo Champion.*

BLOOD STOCK.—Cumberland can now boast of having three of the best blood horses in the kingdom—viz., Grey Wiggantheorpe, bought by Rich. Ferguson, Esq., of Harker Lodge, at a very high price; Liverpool, the property of John Ramsay, Esq.; and last, though not the least valuable, Ben Ledi, purchased by Messrs. Shepherd and Weir. To farmers, breeders of stock, and sporting gentlemen, every facility is now offered to improve their breed of horses. It has long been a cause of complaint that no first-rate blood stallions travelled this district, and now when this source of complaint is made, we trust those interested will avail themselves of the spirited conduct shown by the owners of the horses we have just named.

SINGULAR OCCURRENCE.—On the 20th of March last, an ewe sheep, the property of Francis Clarke, of Stubton, Lincolnshire, brought forth two lambs, heder and shedder, and at the time it was his opinion, from symptoms, there was another, but after a lapse of about a week those symptoms disappeared, but again returned about three weeks since, and continued up to the 10th of November, when he had her slaughtered, and a fine heder lamb was taken from her, which appeared not to have been dead more than six or eight days.

COW CABBAGE.—There is now growing in a small garden belonging to Luke Frankland, adjoining Mr. T. Johnson's garden, at Pocklington, a plant of the Curled Cole or German Green-tribe, which is upwards of six feet two inches high, stem and foliage in proportion. Its foliage is beautifully curled, and it is at this time growing with great rapidity.

We beg to draw the attention of our agricultural readers in particular, to the remark of a celebrated traveller respecting the making of cheese in Norway. In speaking of Gamel Orse, or Norske, he says it is a cheese of such great celebrity in Norway, and of which the natives are so fond, that it is extremely difficult to purchase any of it.—That in making it they use *butter milk, mixed with yeast*. That it resembles the finest old Cheshire cheese, without the slightest rankness, and is sometimes kept ten years before it is brought to table. Perhaps this may furnish a hint for some good dairy woman to improve the produce of her dairy.—*Sussex Advertiser.*

As a proof of the superiority of Herefordshire cattle:—The Hereford steer, two years and seven months old, bred by Mr. Yeald, of the Broome, near Pembroke, and which won Mr. Hayton's prize at Hereford, was sold at Hereford fair for 35*l.* We understand this steer is by the celebrated Bull Tobias, now in the possession of Mr. Gough, of Gravel Hill, near Shrewsbury.—*Satopitan Journal.*

AGRICULTURAL REPORTS.

GENERAL AGRICULTURAL REPORT FOR NOVEMBER.

The field labours of this month simply consist of ploughing and stirring autumnal and winter fallows, cutting coppices, planting and felling timber trees, &c. on those farms of which they form a part: we have in this report, but little to offer, on practical farming, further than stating and re-stating, that these—which we consider to be of the greatest importance to those engaged in them—are all snugly in their place: notwithstanding that the fat, or rather fattening beasts, of both last summer and the present autumn, have been characterised, by the butchers generally as having come lighter to the scale, and carried less internal fat, both loose and over their kidneys, than the oldest amongst them recollect to have witnessed, at a corresponding season of any past year, there are no complaints of sheep rot, and the generality of live farm stock is represented as being healthy, and the depastured part of it for the most part, doing well, without the aid of any, or with but a very small proportion of dry fodder, which was given it during the heavy snow, in the in the early part of the month. The lingering foliage hanging on both fruit and forest trees, has assumed its deeply-tinged autumnal complexion, and is rapidly descending; but the most gratifying feature of the agricultural community is a daily improving "live and let live" understanding between landlords and their tenants. Hence, as we conceive we can say nothing more gratifying to our readers, than that there appears to be a rapidly increasing unanimity between landlords, tenants, and the clergy.

As it may not be uninteresting to a portion of our readers, to know how England's soils are disposed of, we, in the present dormant state of tillage, respectfully venture to impose upon them the following extract, from the second volume of "Young's Farmers' Tour," published in the year 1771. The author, on page 455, asserts—"There now only remains for me, to give a table of the state of the soils throughout England. This is an inquiry of more than amusement, for there is a use in proportioning the particulars of any considerable part of the kingdom to the whole,"—Subjoining—"It is not of consequence to know whether such parts of the kingdom that are included in farms make thirty-two millions of acres, but I shall take that supposition." Here he gives the following tabular statement.

"Acres in all .....	32,000,000
Arable land.....	13,518,716
Grass ditto.....	15,736,185
Wood, ditto.....	2,395,721
Allowing for gardens, yards, rivers, ponds, &c.....	349,378"

Now, as the author did not take into his statement, at least, 220,000 acres of bog and common lands that have been reclaimed and inclosed, since the year 1771—for the most part, since the passing of the Consolidating Act, of the 41st of George the Third—whence, possibly, the principle and predisposing causes of the ruinously low prices of wheat for so long a period before farmers were disposed to alter their courses, in sowing additional breadths of barley, oats, and beans,—at this time, by far their most remunerative crops. The Rev. A. Dickson, in his

"Husbandry of the Ancients," asserts,—"Inclosing lands is now a very common practice, in modern husbandry. It is reckoned a great improvement, and indeed, without it, lands cannot be brought to the highest degree of culture. The scheme in which land is changed ultimately from tillage into grass, is certainly most advantageous; but, unless lands are properly inclosed it cannot be properly executed. In this," the Rev. Author continues, "there seems to be a great difference between the ancient and modern husbandry, for, although the Romans had a great many different methods of inclosing, yet it does not appear, that in the time of either Columella, or even that of Pliny, there were any inclosures in Italy, for feeding of cattle. In Columella's account of the manner of feeding labouring cattle, no mention is made of their being put into inclosures."

As relates to the prices of farm produce since the date of our last report, those of corn have been singularly vacillating and anomalous, they having, as if by general impulse, suddenly advanced from 4s to 6s per quarter, owing to an alleged greatly increased demand and general scarcity, even from our poor complaining Sister Kingdom, but, unable to support their advanced position for even a single week, have gone toppling back. The prices of store sheep and beasts have been, in all our country fairs, with those of hops, game, and poultry, a little on the decline. Of each kind of fat stock, with hay, straw, good horses, and milch cows, about stationary.

The following is a retrospect of the supplies and prices of fat stock exhibited in Smithfield and Islington cattle markets, since that published in our last months' report.

SUPPLIES.

		SMITHFIELD.			
		Beasts.	Sheep.	Calves.	Pigs.
Oct. 28. ..	340	3100	200	310	
— 31. ..	3360	20800	240	400	
Nov. 4. ..	630	4350	215	412	
— 7. ..	3450	21900	150	320	
— 11. ..	629	3940	210	415	
— 14. ..	3133	19125	175	430	
— 18. ..	455	3261	140	310	
— 21. ..	2810	20100	200	420	
— 25. ..	426	2830	130	347	
Total ..	15233	99406	1660	3364	
Supply of preceding month.	18674	138280	2082	3280	
		ISINGTON.			
		Beasts.	Sheep.	Calves.	Pigs.
Oct. 28. ..	26	502	—	—	
— 31. ..	132	1872	—	—	
Nov. 4. ..	43	540	—	—	
— 7. ..	134	1744	—	—	
— 11. ..	31	370	—	—	
— 14. ..	105	1685	—	—	
— 18. ..	29	250	—	—	
— 21. ..	101	1402	—	—	
— 25. ..	15	285	—	—	
Total .....	616	8650	—	—	
Supply of preceding month.	891	13130	12	—	

By the foregoing retrospect of supplies, it appears that those of beasts, at Smithfield, have, since the date of our last months' report, decreased 3,441, of sheep 38,874, and of calves 422: whilst those of pigs have increased 34.

At Islington, there have been exhibited, in the same period, 275 beasts, 4,480 sheep, and 11 calves less than last month; whilst there were no pigs in the market. in either month; the beasts having consisted, for the most part, of short-horns, with a somewhat increased number of Scots and Herefords, with a few Welsh runts, Irish beasts, lusty cows, &c.; the sheep chiefly old Lincolns, old and new Leicesters, white-faced Gloucester sheep, South downs, Kents, Kentish half-breds, and horned Dorsets and Somersets.

About 11,360 of the beasts exhibited in both the above markets, a third of which were short-horns; the remainder, in not far from equal numbers of Herefords, Devons, and Welsh runts, with about 400 Scots and Norfolk home-breds, and not more than 500 Irish beasts have come from Lincolnshire, Leicestershire, Northamptonshire, and others of our northern and north-western districts; the numbers up the St. Alban's-road, having been 8,060; up the other northern and north-western roads, about 3,300; about 950, in about equal numbers of Devons, Herefords, Welsh runts, and Irish beasts, with a few, but not many, Scots, and Norfolk homebreds, from Norfolk, Suffolk, Essex, and Cambridgeshire: about 1,750, chiefly Scots, Devons, homebreds, and Welsh runts with some short-horns and Herefords, from our western and midland districts; about 225 horned and polled Scots, but chiefly the latter, by sea, from Scotland; about 180, mostly Devons and Welsh runts, with a few Sussex steers, cows, and heifers, from Kent, Sussex, and Surrey; and most of the remainder, comprising not an inconsiderable number of all the before-mentioned breeds, and about 190 lean and lusty towns-end cows, from the marshes, cattle lodgers, cow-keepers, stall-feeders, &c., in the vicinity of London. There has also, been a greatly increased number of store Devons and poor Irish steers and heifers offering, both on the Monday's and Friday's markets of this month; but the sellers of both, though more particularly the latter, when they sold, were compelled to submit to low prices.

PRICES.

	Oct. 28.			Nov. 25.		
	s.	d.		s.	d.	s. d.
Inferior Beef . . . . .	2	0	to 2 4	..	2	2 to 2 4
Middling, do. . . . .	2	8	to 3 2	..	2	10 to 3 6
Prime, do. . . . .	3	6	to 4 2	..	4	0 to 4 10
Inferior Mutton . . . . .	2	4	to 2 6	..	2	4 to 2 6
Middling, do. . . . .	2	8	to 3 0	..	2	8 to 3 0
Prime ditto, . . . . .	3	10	to 4 6	..	4	0 to 4 8
Veal . . . . .	3	10	to 4 10	..	4	0 to 5 6
Pork . . . . .	3	2	to 4 8	..	3	2 to 4 8

The following is a comparison of the supplies and prices of fat stock sold in Smithfield Cattle Market, on Monday, November 23, 1835, and Monday, November 21, 1836:—

At per 8lbs, sinking the offals.

	Nov. 23, 1835.			Nov. 21, 1836.		
	s.	d.	s. d.	s.	d.	s. d.
Coarse and inferior beasts . . . . .	2	0	to 2 2	..	2	to 2 4
Second quality do. . . . .	2	6	to 2 8	..	2	10 to 3 6
Prime large oxen . . . . .	3	0	to 3 8	..	3	10 to 4 2
Prime Scots, &c. . . . .	3	10	to 4 4	..	4	6 to 4 10
Coarse and inferior sheep . . . . .	2	4	to 2 6	..	2	4 to 2 6
Second quality do. . . . .	2	6	to 3 0	..	2	8 to 3 0
Prime coarse-woolled sheep . . . . .	3	4	to 3 8	..	3	8 to 4 0
Prime South Downs do . . . . .	3	10	to 4 4	..	4	2 to 4 6
Large coarse calves . . . . .	3	0	to 4 2	..	4	0 to 4 6
Prime small do. . . . .	4	4	to 4 10	..	4	8 to 5 2
Large hogs . . . . .	3	0	to 3 10	..	3	2 to 3 8
Neat small porkers . . . . .	4	0	to 4 6	..	4	4 to 4 8

SUPPLIES.

Nov. 23, 1835, Nov. 21, 1836.

Beasts . . . . .	2,878	2,810
Sheep . . . . .	21,490	20,100
Calves . . . . .	335	200
Pigs . . . . .	412	420

By the above statement of prices, it appears, that each kind of fat stock, except pork, has been dearer this month than last, or in the latter end of November, 1835; whilst there were 68 beasts, 1390 sheep, and 135 calves less, and 8 pigs more, in the market on the 21st of November, 1836, than on the 23d of November, 1835.

This month's Smithfield supplies of sheep, like those of last month, have comprised not far from equal numbers of old and new Leicesters, Kents, and Kentish half-breds, old Lincolns, and South Downs; with a somewhat increasing number of Norfolk sheep, chiefly polled, as also of white-faced polled Gloucesters; a few pens of horned Dorsets and Somersets, horned and polled Scotch and Welsh sheep, &c. Not more than 130 sheep have arrived in the course of the month, by steamers, from Scotland.

This month's Smithfield supplies of sheep have been about equally derived from our northern districts, Kent, Sussex, Surrey, and our western and midland districts, with a few from the neighbourhood of London. Those at Islington chiefly from Lincolnshire, with a few from our other northern grazing districts.

The quantity of slaughtered meat sent from different parts of England to the London carcass markets during the month has been great; we ourselves, having witnessed the arrival, on Friday, the 25th of about 1,000 carcasses of slaughtered pigs and sheep from Hull by steam-vessels, consigned to Newgate and Leadenhall Markets; but, from Scotland, supplies have been very limited.

YORKSHIRE AGRICULTURAL REPORT FOR NOVEMBER.

Soon after our last report reached London, we had (for the season) an extraordinary visitation, frost, snow, and intense cold, which was more in quantity, and of longer duration, than occurred during the whole of last winter. Every one seemed amazed, and foddering immediately commenced, as it was judged to be the precursor of a severe winter, but it gave way, and since that period, though we have had incessant cold rains, we have had few or no frosts, and very seldom any snow, even upon the elevation of Black Hambleton Down, 1246 feet above the level of the sea at low water. The very uncongenial state of the weather last month, prevented three-fourths of the fallows intended for wheat from being sown, and it was only a little clover lea which could be broken up; and that in favoured and dry situations, and the seed was rather "daubed in," (a term well understood in Yorkshire) than sown. Even of this little, some has not yet appeared, and has only felt the effects of incessant rain, and some would sustain considerable damage from vegetating during the frost. The unsown fallows are generally unmanured, and some the ridging up would not be performed, and it must be exposed to the effects of the water standing upon it during winter, which will counteract much of the benefits of the fallow. Seed corn is exhibited very smutty, but the little that has been sown, has caused a demand for some soft samples, which otherwise would never have met a purchaser. The taking up of the potatoes has been equally impeded, and the greatest part of them remained in the ground and exposed to the action of the frosts at the latter part of last month; and where they were got up, they were in a very unfit state for preservation, and under almost

any circumstances, could scarcely be expected to keep over year. The reports of the produce are generally unfavourable, although few decided failures have taken place. There are certainly exceptions to this; Mr. James Craven, of Richmond, in the North Riding, took up a root to which sixty-one tubers were attached, and one of which weighed 2 lbs! Very general complaints are made, that they are watery, and very badly tasted. Those earliest put into the ground are certainly the best flavoured. Owing to the deficiency of turnips, cattle are beginning to be fed with them instead of reserving them for Spring, and owing to the high prices of the grinding qualities of barley, most of the labourers are feeding their hogs on potatoes. These are a root which takes very great trouble to obtain, and are a source of exhaustion to the soil, but when they are obtained, they are of great value, especially in the Spring, when other food is scarce. Turnips are beginning to show their deficiency very much. The bulbs are found small and wiry, and in some cases knotted by the continued attacks of grubs, and root weevils. The leaves are also poor, small, and shrivelled, and certainly we never saw the sheep trample them down, and refuse them so much; they seem to be deprived of some portion of their nutriment, which causes them to be rejected. Our stocks of sheep are heavy, but their condition, owing to the deficiency of pasturage through the summer, is only inferior. Cattle of every description are also rather short of condition, and prime fat is scarce. Fodder of every kind is dear, and dealt out with the utmost care. Ploughing is in a backward state, owing to the unfavourable state of the weather. The pastures were never eaten up so bare. Mangel wurzel turns up very small, and generally inferior, it has been unable to resist the effects of the extreme variations of the weather this season. Our markets have experienced the most remarkable fluctuations during the month. At one period the demand was such as the country were unable to supply, but the immense quantities which were hurried in, in order to take the advantage of the rise, and to enable the farmers to meet their Christmas rents, has caused the prices to flag, but a general impression prevails, that the prices will rally after Christmas. Servants' wages have been high, owing to this improvement in prices, and they are much hired up. We cannot say that the harvest is all gathered in; the remains of the bean and oat crops, are still exposed to the effects of the weather, very much barley of the grinding qualities comes into market stained, and soft, and fine samples are very scarce. It sells from 32s to 40s per qr. Oats are beginning to make their appearance, and the old are falling in price; the new however, in many instances are very soft, from 25s to 30s per qr must be our quotations. Wheat comes in too very fast, our old stacks are disappearing amazingly, and our stackyards generally are thinning. The thrashing machines are kept at work, and straw stacks are very generally making their appearance in the county. Wheat sells at 8s for white; red 7s 6d to 7s 9d per bush. Rye plentiful at 5s to 5s 6d per bush. Beef, 5s 9d to 6s; prime scarce, 6s 6d per stone. Mutton, 5½d to 6d per lb. The meeting of the Yorkshire Central Agricultural Association did not go off with its usual éclat, the attendance was not so great in past years, and the rise in prices, and selling of grain, seems to occupy the farmer's attention, more than political demonstrations. The Poor Law Commissioners are at present in Yorkshire, and have succeeded in forming unions at Beverley, Malton, Driffield, York, Easingwold, and at Osseburn, where they had united under the provisions of a previous act, and where fifty paupers are comfortably provided for, and rates light, they have unanimously resolved to reject the offer to come under the New Poor Law Act. Whatever may be the general working of it, the bastardy clause is certainly the most injudicious piece of legislation, ever stumbled upon.—Nov. 24.

#### REPORT FOR THE NEIGHBOURHOOD OF DEVIZES.

Seed time, an interesting and important period, is now nearly concluded, for which the weather has

been particularly favourable; indeed, this work has seldom been done under more desirable circumstances or in better manner; perhaps the early sowing on the hills was rather too dry, but the late heavy rains will be very beneficial to such in particular, and will much improve all. The breadth sown is a fair average, many pieces being sown with wheat when turnips had failed, which would otherwise have been left for spring corn. Winter vetches, rye, and winter oats, are sown very plentifully to meet the deficiency in the turnip crop, and small stock of hay. The harvest though hastily got in, was safely secured, and in threshing is found to be more productive than was anticipated; that on the hills and poor light soils which lost plant during the winter and spring, is a deficient crop, but the superior yield from the vallies will partly make up this deficiency, and the crop may prove nearly an average. Barley also yields well from the straw though light from the acre; quality not quite so good as last year. Chevalier decidedly the best. Oats the most deficient crop. Beans and peas not a good one. Potatoes good in quality though not an average crop, and some few are injured by the frost; the price at which they sell will prevent many from being given to pigs, generally the largest consumers.

#### NORTH RIDING, YORKSHIRE.

We have had all sorts of weather since our last report, but a great proportion of wet; however, as what is past cannot be altered, we think it does not benefit our brother farmers giving a particular account of it, except so far as it has affected the crops. Except on good forward soils we have had a most tedious harvest for Barley, Oats, &c., but by this time we hope the greatest part of each will be housed, though it is doubtful too much haste has been used. On high cold soils there may be some out yet, which will not be of much value when got in. Turnips are a partial crop; some fields are excellent, others worth little. In a field of 11 acres, a part of which was drilled with bones alone, at the rate of two and a half quarters per acre, another part with bones and quick ashes mixed, and a third with quick ashes alone, the first are excellent, second middling, and third very bad, and very much infested with insects. We merely state this, because we think every one ought to mention any effects different methods have on the crops, &c., although it may have been noticed before. With respect to the potatoe crop we cannot say much, as we have not seen many taken up as yet. It is with pleasure that we can state a general advance in prices, not that we are advocates for very high ones, but they have been long much too low; the general opinion is that they are likely to continue, or, however, not lower. In stock not much alteration.—Nov. 9.

#### SOMERSETSHIRE.

The extraordinary advance in the price of wheat has naturally drawn the attention of dealers to the quantity of corn on hand: as far as I can learn but few of the millers were prepared with large stock for advance—the bakers still less so: in the hands of speculators I may safely assert, that in the western and southern part of this county, 500 qrs would exceed the amount. Little of the new wheat (which, I think, from what I hear and see, is of much better quality than the average of the rest of the kingdom) has been brought to market, and of old wheat, although not so large a stock as last year, yet there is, I consider, more than the average of the last five years, and some of the farmers are holders to a large extent: in the yield of the new wheat I have heard but little complaint, and I know that nearly

40 bushels has been realized per acre. Up to last year the growth of wheat has been rapidly on the increase, and I think I may add the stock retained in the farmer's hands have been greater. I quite expect an abundant delivery before or about the end of the year. I think there has not been a shorter stock of old beans for many years: I have dealt in the article for many years; never knew less brought to market up to this time: there are a good many new in good condition, which we may expect shortly on the market: the price of new is 5s 6d to 5s 9d, old, 6s to 7s; I have heard of 7s 6d being given. Flaxseed is in great demand, and has advanced 2s per qr—6s 6d to 7s per bushel. Barley is very scarce; the best new is worth from 4s 9d to 5s 3d. Oats, 28s to 30s per qr. Boiling Peas, 6s to 7s. Old Wheat, top price, 8s to 8s 3d, 64lbs. per bushel, new, 7s 6d to 8s, 62 to 63lbs. Flour, 48s to 51s per sack.—Nov. 18.

## WILTS.

Winter has commenced much earlier than usual. Such an event as ploughs stopped by frost in October has seldom occurred, and though the frost has not been so hard since the beginning of this month, still we have a continuance of wintery weather. So far as food for cattle is concerned this circumstance is to be lamented, as the country was never in a state to suffer more from severe weather than at the present time. In some respects the autumn of 1835 was similar to the present. Then, we had a failing crop of turnips, and no grass on the downs or pastures, and so far it agrees with the present; but in 1835 we had secured a good crop of hay, with a very considerable quantity of old hay; and now, in 1836, we are beginning the winter with a bad crop of hay, and no old hay to help it out; so that any long frost, or such a peculiar season for the consumption of hay as we experienced last winter, will put all cattle masters to great inconvenience and loss. With the exception of some farms, where there are old wheat ricks (and these, considering the very low price wheat has yielded for some years past, are not many) the peculiar feature of the times is the small quantity and size of corn and hay ricks to be seen through the country. From this cause, coupled with our opinion of the new crop as stated in our report of August last, we do not wonder at the start the markets have lately taken, and the lesson to those who, from a command of capital were enabled to hold their wheat when it sold at 17s or 18s per 280lbs net, and did not avail themselves of the opportunity, may be a useful one; for though the wheat has been sinking in value since the year 1830 to the last year, yet it should be remembered that "it is a long lane that is without any turning." The low price of wheat in 1829, 1830, and 1831; the low price of hay in 1833 and 1834; and the late very low price of wheat, form historical truths of some value. These are commodities capable of being held over without any great deterioration of value. When the question arises with regard to keeping over cattle when the price is low (as in the case at present with sheep), then it is quite altered, on account of the great expense of keeping them. Hay may now be worth 5l per ton, and a good down ewe can be purchased at 20s. It is probable that at Lady-day next more poor sheep than usual will be seen, in consequence of the scarcity of hay and straw. The turnips sown on the wheat stubbles have this year no bulbs, so that the supply to the Salisbury, Bath, and other markets is wholly cut off. Carrots and parsnips are one-third dearer than of late years, and difficult to be procured. Potatoes are dearer at digging time than they have been since 1829, being now worth 4s per sack. The Poor

Law Amendment Bill is "carrying out" with as little individual suffering as any great and sudden change can be expected to produce. In one parish, not far from the centre of this county, 69 paupers were working in gangs, under the superintendence of a paid overseer, on roads and in stone pits at this time last year, at the present time there is not a man who is able to work who is on the parish. On the principle that "to be acquainted with particulars is the beginning of knowledge" it would be instructive to know the destiny of each of these 69 individuals.—Nov. 10.

## DEVONSHIRE.

As meetings are about to take place in several parts of this county, with a view to give efficiency to the Act for the Commutation of Tithes in England and Wales, we beg to call attention to the accompanying table. The prices opposite each year express the averages of the seven preceding years, and the column farthest on the right hand how much would have been paid in former years for every 20s rent charge, settled according to the average of 1835. If the compositions which have been agreed to during the seven years ending Christmas 1835, have been calculated on higher averages than the table exhibits, then the tithe payers will have good ground for signing a notice to the Commissioners, stating that the sums paid for tithes will exceed the amount of the rent charge, which should be fixed. We are the more disposed to press this observation on our brother farmers, as we know there has been a great reluctance on the part of the tithe owners, particularly the lay improprators, to consent to a fixed and permanent reduction, as if they had actually known years ago, the provisions of the present act, the only protection which it affords to the payers of tithes being the prevention of that iniquitous exaction which has been heretofore practised upon the most spirited and intelligent for the better culture and improvement of their lands.

Years.	Wheat per bus.		Barley per bush.		Oats per bush.		The value of 1l in 1835 estimated according to the prices of other years.	
	s.	d.	s.	d.	s.	d.	£	s. d.
1821	9	4 $\frac{1}{2}$	4	10 $\frac{1}{2}$	3	3 $\frac{1}{2}$	1	5 1
1822	9	0 $\frac{1}{2}$	4	8 $\frac{3}{4}$	3	2 $\frac{1}{4}$	1	4 3
1823	8	6 $\frac{3}{4}$	4	8 $\frac{1}{2}$	3	2	1	3 8 $\frac{1}{2}$
1824	7	11 $\frac{1}{4}$	4	5 $\frac{1}{2}$	3	0 $\frac{1}{4}$	1	2 5
1825	7	7 $\frac{3}{4}$	4	2 $\frac{1}{2}$	2	11	1	1 5
1826	7	4 $\frac{1}{2}$	4	0	2	10 $\frac{3}{4}$	1	0 9 $\frac{1}{2}$
1827	7	2	4	0 $\frac{3}{4}$	2	11 $\frac{1}{4}$	1	0 9
1828	7	3	4	2	3	0	1	1 2
1829	7	7 $\frac{3}{4}$	4	4 $\frac{1}{4}$	3	1	1	2 1
1830	7	10	4	4 $\frac{1}{2}$	3	1 $\frac{1}{4}$	1	2 4
1831	7	10 $\frac{1}{2}$	4	4 $\frac{1}{2}$	3	1 $\frac{1}{4}$	1	2 5
1832	7	8 $\frac{1}{4}$	4	3 $\frac{1}{4}$	3	0 $\frac{1}{4}$	1	1 10
1833	7	7 $\frac{1}{4}$	4	1 $\frac{1}{2}$	2	10 $\frac{1}{2}$	1	1 2
1834	7	4 $\frac{3}{4}$	4	0 $\frac{1}{2}$	2	9	1	0 6
1835	7	0 $\frac{1}{4}$	3	11 $\frac{3}{4}$	2	9	1	0 0

In the higher parts of the county the sowing of wheat is nearly finished, and many fields are quite green; but in the better lands little was sown except on the clover layers before the beginning of this month. In consequence of the many failures of the turnip crop, the wheat succeeding will be put in early. The principal feature of the last six week's has been the great rise in the corn markets, to which not only the state of the crops in Ireland, and the north of England and Scotland have contributed, but as we believe the slender produce of many English counties, and the great consumption of wheat during the last

twelve months. There is now a little check, but looking at facts which come within our own knowledge, we cannot believe the markets can materially recede. The Poor Law Unions in this part of the kingdom are working well: the idle and improvident have become more industrious and prudent; the dissolute and impudent more decent and civil; for the aged and helpless ample provision has been made, consistently with the rights of the independent labourer, and the vigilant supervision of the auditors is fast rooting out numerous parochial abuses. The consequence of all this is a great and general reduction in the poor rates.

#### SUFFOLK.

Since our last report the weather has continued unfavourable for agricultural pursuits, and although in this county the harvest was all secured (with the exception of part of the bean crop, and a chance piece of seed clover) when such report left us, yet a fine autumn is desirable for the various farm operations, which necessarily must be performed at this season. Carting manure for wheat and for wheat seeding, whether dibling, drilling, or sowing broadcast, also for carting off and securing mangel wurzel, and many other kinds of work almost innumerable. We again state the weather has during October been the most untoward we ever remember to have witnessed. At one time heavy falls of rain, at another the ground so hard from frost, that planting wheat could only be proceeded with during the latter part of the day; at another the ground covered by a deep snow for three or four days together, wheat sowing is therefore not yet completed. Of the probable produce of the various crops, we see no reason to alter our former opinion, although wheat rises well from a given quantity of straw; yet when we consider that that straw was the produce of a greater quantity of acres than have been required for the last several years, to make the same sized stack, or fill the same barn, we shall be surprised if many are not deceived as to the acreable rise of their wheat crop. The rise in the price of all kinds of grain have animated the minds of the farmers, and we hope will give a stimulus to an improved and compensating system of agriculture, and to the employment of the labouring population.—Nov. 12.

#### PERTSHIRE.

Winter has trodden closely on the heels of harvest and found many unprepared. A frost, unparalleled for intensity in October, set in on the 28th of that month, accompanied with a fall of snow. The preceding part of the week had been dry, and a very great part of the late crops was, during that period, carried in tolerable condition. Much, however, remained exposed in the higher districts, and even in the earlier parts of the county beans and oats were not all got in, nor even at this date are we able to report that in any district the operations of securing the crop are concluded. Although the storm in the end of October was of short duration, frosts have been frequent since, and rendered potatoes taking up an unpleasant and expensive process. In the early districts they are not yet all up. And we are sorry to be informed, that in some places bordering on the Highlands, the villagers refused to lend a helping hand in securing this valuable root, which a slight frost renders useless. In the Highland glens some patches of oats still remain uncut, and fields of barley are to be seen here and there in the stook, the lateness of which, exposed as it was to frost while in a green state, will render much of it useless to the maltster. The loss by frost sustained by potatoes is variously estimated, and they were variously affected on different soils; those varieties, too, which grow

deepest in the soil were most secure. Some estimate the loss at one-third, some at one-fourth, and some at one-eighth of the whole, but the loss will be easiest ascertained on an early turning and picking, which the frozen potatoes unavoidably mixed with the sound at taking up, renders necessary. We see no reason for departing from our previous estimate of the crop, only that as a great deal of beans were in a greenish state, although cut previous to the 28th ult. the frost which, on swampy grounds, indicated from twelve to fourteen degrees below the freezing point, will have rendered many of such useless even in feeding horses; to be used as seed is out of the question. The oats, notwithstanding many failures on highlands, will, in the cultivated districts, give a fair return, and the quality appears good. Sowing of wheat after potatoes and bean stubbles has been retarded till an unusually late period, and without dry and open weather, that operation cannot well be proceeded with. Early sown wheat on dry bottoms exhibits a healthy plant, but the breadth as yet above ground is inconsiderable. In the corn market prices have advanced considerably of late. Sound samples of barley are much in demand, and such are expected to command high prices. Oats are not likely to rise much in price, being, with the exception of late situations, a fair crop. Cattle, from the lightness of turnips, meet a dull sale.—Nov. 7.

#### DUMFRIES-SHIRE.—OCTOBER.

The first part of the month continued wet and very unfavourable for harvest work. This was succeeded by ten days of mild dry weather, during which much of the oat crop of this vicinity was secured; and the higher and later crops were better ripened than could have been anticipated. On the 27th and 28th, a high cold wind from the north was of great benefit in enabling the farmer to stack in fair order the late corns; and on the first of November, there does not remain out more than perhaps a twentieth part of the crop; of which, however, a part is yet to cut. The last four days of the month have been distinguished as the coldest at this season ever recollect. The eastern part of the county was covered with snow on the night of the 28th, which has remained for three days, with a severe frost, the thermometer, generally, in situations about 500 feet above sea level, falling to 20, on the 31st. This severe frost has of course completely destroyed the fields of unripened oats, which on moorish soils are to be seen in every quarter, although to no great extent. The produce of wheat falls under the lowest anticipated estimate of it. It probably will not average above 15 or 16 bushels per imperial acre, and the weight 57 or 58 lbs. Barley, too, is an inferior sample; and though bulky in straw, will be rather short in quantity per acre. The oat crop, on the whole, will be an average in produce of bushels, but certainly very deficient in meal. Potatoes, of which not above a third are yet taken up, are a very defective crop. On all light and weak soils, even though dry, they are (exclusive of the loss by failure of seed) one-third below an average; and on wet soils, generally more than a-half deficient. Where there is a depth of good dry soil, and no failure of seed, they are not much short of an average; and, what could not be anticipated in a cold year, in general, they are proportionably a better crop on the higher districts, than on those nearer the coast. In the town markets, they are at present selling at the unusual high price of 2s 6d per cwt; but as so great a proportion in this county is raised for feeding swine and other bestial, the consumption of which can be much abridged, any higher rate at least is not to be expected during the season.

## AGRICULTURAL INTELLIGENCE, FAIRS, &c.

**CHESTERFIELD FAIR.**—There was a tolerable supply of horned cattle: good new calved cows and those near calving, as well as prime barren cows, met with ready sale at rather advanced prices. All other descriptions of cattle were either disposed of at ruinously low prices or driven home unsold—arising, doubtless, from the extreme scarcity of fodder. The horse fair was more than usually well supplied: the few useful nags shewn met with ready sale at high prices, while all other sorts were scarcely noticed, and for which there were but few purchasers. There were a good many pigs in the fair; for those of a large size high prices were obtained, the smaller ones fetched less money. There was but a poor supply of cheese, and that but of middling quality, the average price was from 62s to 65s per cwt.

**YORK MARTINMAS FAIR.**—At this annual Beast fair there were a thin supply of fat beasts, which met a fair sale at from 5s 6d to 6s per stone; of all descriptions of lean beasts and going-on stock there was a great supply, but there only appeared to be a heavy market for them, at rather a depression in prices; there was also some Cheviot and Masham hogs and ewes shown, for which also the sale was heavy.—**THE HORSE SHOW.**—In the horse fair there was but a poor show of good ones, which were soon sold, at good prices; of inferior ones there were part shown, for which there was no demand.

At **ALRESFORD GREAT SHEEP MARKET** there was but a short supply of sheep, which met rather a dull sale, except for lambs, which experienced a ready sale, at about the same prices as at the late Andover Sheep Fair. Pigs were numerous, and sold at high prices.

At **BRECON NOVEMBER FAIR** fat cattle went off readily at brisk prices, but store cattle had but a very dull sale. Pigs, of which there was a very large supply, also went off slowly. Fat pigs, of which there were but very few, fetched about 8s per score. Cheese, 45s, 50s, and 54s per cwt. Butter in cask and tub, 1s per lb. Hops, a slow sale; best samples at from 5l to 5l 12s per cwt.

**WIRKSWORTH FAIR.**—There was an unusual number of cattle, chiefly store, and the few that changed hands were sold at low prices. Good beef kept up its price.

**EASTHOTHLY.—CROSS-IN-HAND FAIR.**—There was a middling exhibition of the different sorts of stock at this fair, but the business was extremely dull, and no great number of sales effected. The prices demanded by the Welchmen, may be quoted at about 2s per stone.

**EGTON FAIR.**—The stock shown was not so plentiful as might have been anticipated, nor of that prime quality for which this fair is noted; with the exception of fresh steers, which met a ready sale at high prices. It was considered a dull fair.

At **FROME FAIR** there was a large supply of horned cattle and sheep, but pigs were not in abundance. Cheese hung upon hand in the morning, but afterwards it sold more readily, and prices may be quoted at from 56s to 63s per cwt.; a large quantity was pitched. Fat beef fetched from 9s to 9s 6d per score; mutton, from 5d to 6d per lb; pigs, from 8s 9d to 9s 3d per score. Horses were plentiful, but of an inferior character, and, consequently, there was a dull sale. Articles, generally, were rather at a decline in prices than otherwise.

**CHESTER CHEESE FAIR.**—This fair took place on Wednesday last, and at no previous fair has there been such an extraordinary supply as appeared in the Halls this day. The buyers were numerous, but they were somewhat reluctant to give the prices asked. Good Cheshire Cheese sold at from 75s to 80s per cwt., whilst 50s to 65s was asked for middling. A good

quantity of the former was sold, but the latter, from its inferior quality and high price, went off but sparingly. The cheese fairs are held the day preceding the cattle fairs,—that is, on the day's preceding the following—last Thursday in February and April, July 5, 1st Thursday in September, October 10, and last Thursday in November.

**YEOVIL.**—The quantity of cattle at our fair was unusually small, and the quality of the beef very indifferent. The prices ranged from 8s to 9s 6d per 20 lbs, to sink the offal, but there were but few that were of the quality to realize the latter price; of half fat and poor stock there were a great number unsold. It was a full fair of sheep, mostly consisting of ewes and lambs, and but few good feeding wethers; there was a dull sale for the ewes, which were mostly inferior; the best lambs sold readily, particularly the Downs, which obtained a marked preference over the horned; the latter, likely to make the same weight, only fetching 18s to 20s, and the former 20s to 22s; there was some inquiry for hogs for grazing, and but very few for sale. Mutton is a dull sale, 5d to 6d per lb. There was a poor show of horses. A fine sample of old barley was sold at 44s; new, 39s to 40s. Flax at Yeovil market is worth from 5l 10s to 6l 10s per pack; the quality of the new is not so good as the old. The linen and sailcloth trade is brisk.

**BAWTRY MARTINMAS FAIR.**—This fair was numerously attended by purchasers. Fat stock which was scarce, experienced a great demand and fetched high prices. There was a good supply of lean stock, which also sold well.

The fair at Marlborough may be stated as the best since Weyhill. There was a large supply of sheep; and lambs sold briskly at an advance in price. For ewes the demand was not so great, but they supported the prices of former fairs. Good horses were in demand, and fetched high prices, especially cart colts.

At **DUNSE FAIR**, there were 650 head of cattle. There was a brisk demand for fat, but no advance in prices. Fat klyoes from 5s 6d to 6s, and fat cows 5s per stone. There was a number of lean cattle in the market, and a good deal sold, prices looking downwards. Year and a half olds sold at from 4l 10s to 6l 10s; small Highland do. 1l 10s a-head; farrow cows from 4l to 7l 10s. Blackfaced ewes, fat, 13s a-head; Cheviot Dimonts from 16s to 18s 6d. There was a middling show of horses, and sales were in general dull.

**KINCARDINESHIRE.**—We have received the following account of the state of the crops in the neighbourhood of Laurencekirk, in a letter dated the 12th of November:—"I have got my harvest concluded at last, it being the most tedious one we have had since 1817. Those who had patience, and did not take in too soon in the beginning, had the crop pretty well settled; but it is very different with those who had not. I happened to be one of the patient, which has proved fortunate to me. I had very little in until Monday fortnight. We began as 12 struck on Sunday night, and we only rested nine hours until 2 on Thursday morning, when we got it all into the stackyard. Snow came on about 6, accompanied with a very high wind, which damaged very much what was uncut. There is still a good deal to cut down in the late districts in our neighbourhood. Barley is below an average both in quantity and weight; oats an average in quantity, but not in quality; potatoes and turnips both very deficient. Our grain markets have started higher than last year, which will, in some measure, compensate our wants. Servants' wages have advanced greatly, owing to manufactures paying so well; that I should not grudge if our own trade would follow."—*Edinburgh Advertiser.*

**FAT STOCK.**—Two bullocks belonging to the Duke of Devonshire, which were exhibited at the late agricultural show at Bakewell, were sold by Mr. Swaffield,



baillif to his grace, at Bakewell fair, to Mr. Joseph Winsor, butcher, of that place, for one hundred guineas.

**PRICE OF HAY.**—The average price of good hay, in Sheffield, is 7/10s per ton. In addition to the supplies from Derbyshire, a considerable quantity has lately been brought up from Thorne.

**POTATOES.**—Mr. James Craven, of Richmond, took up a potato lately, which measured 18 inches round, and weighed 2lbs, there were 60 others of a smaller dimension attached to the same root.

**POTATOES.**—(Observations by Mr. John Johnston, Factor to the Earl of Glasgow.)—In this part of the country, where many fields of potatoes have been taken up since the late frost, I have observed that they are more or less frosted, which renders them not so pleasant a vegetable for the table. I have, however, ascertained that potatoes that have been frosted to such a degree as even to resemble pulp, will still yield, by proper treatment, a pure farina, without any unpleasant taste or smell. I ascertained this by trying a few of those that were frosted, which I lately gathered from a field for the purpose of making the experiment, and I and my family made, from the flour they produced, when mixed with boiled milk, a most excellent supper the same evening they were gathered. I was induced to make this experiment from my having on a former occasion observed in a pit where the potatoes were decayed a quantity of the farina in a pure state, white as snow, lying at the bottom; this I did not try at the time, but I have now ascertained, beyond all probability of doubt, that, even in the highest degree of frosting, the farina or flour of the potato, in which the nutriment exists, is not destroyed. I may observe that it is a common opinion that frosted potatoes are injurious to cattle; but this is by no means the case, and they will only prove hurtful by being given in too large quantity, which would be equally so had the potatoes been sound. In making potato flour therefore it will follow as a consequence that the process may be shortened by exposing the potatoes to a night's frost, when they may be mashed in place of grating them down.—Fairley Mill, 14th Nov.

The annual prize of five sovereigns, offered by E. Bouverie, Esq. to the tenant, occupier of land in the county, being a member of the Northamptonshire Farming and Grazing Society, who could show, about the first week in November, the cleanest and best crop, of not less than five acres, of Swedish turnips, on old tillage land which had the preceding year borne a crop of white grain, has been awarded to Mr. Richard Linnell, of Stove Nine Churches. The weight per acre, after the tops and roots were cut off, was 23 tons 7½ cwt.

The sweepstakes for the heaviest crop of mangel wurzel, of not less than three acres, on old tillage land, after a crop of white grain, average weight of the crop taken the latter end of October, was won by Earl Spencer.

And the sweepstakes for the heaviest crop, of not less than five acres, of Swedish turnips, on old tillage land, after a crop of white grain, the average weight of the whole crop ascertained about the first week in November, by the judges chosen at the annual meeting in September, was won by C. Hillyard, Esq.

Earl Spencer's prize of ten sovereigns to the hedge-cutter who should cut, lay, plash, and ditch eleven yards of hedge row in the best manner, was contended for at Earl Spencer's farm at Chapel Brampton, on Wednesday last, by twenty-one cutters. The judges awarded the prize to No. 9, which proved to be the work of John Whitehead, of Leckhamsted.

The excellent bull Pnam, which belonged to Mr. Denton, of Harraby, but was sold at the late sale to the steward of Lord Corhouse, was such a general object of admiration in Ireland that it was exhibited to the natives of the Emerald Isle at one shilling per head, and in the first day 30l. was paid for the sight.

**THE HARVEST.**—**DUMFRIES.**—So late as Tuesday, the 8th current, we were astonished to find acres

on acres of crop, not only uncarried, but actually uncut in the parish of Terregles, within three miles of the town of Dumfries. But for the evidence of our own eyes we could have hardly believed such a thing possible. Such, however, is the fact, and, perhaps, the remark we have just made applies with equal force to the higher districts of the parish of Irongray. On the Drumstichel and some other hills, not only stooks, but standing corn appeared; and, what is still more extraordinary, matters were nearly equally bad much lower down along the banks of the Cairn, particularly on the farm of Waterside. In Dunscore, we are told, the scene was quite frightful a few days ago; every stook, where a stook stood, was hooded with snow, and the prospect, altogether, as dreary and unpromising as can be well imagined. At the same date potato harvest was merely commencing—anxiety for the grain crops, and most uncertain weather, having for weeks absorbed every other feeling. When the soil is naturally damp and the climate cold, the damage done by frost is very great; say a *third* in extreme cases, and a *seventh* generally. The taint of itself was bad enough, and its new aide-de-camp, General Frost, has made, as may be supposed, terrible havoc in the poor man's greatest bread crop. The instances of failure that have fallen under our own observation, are almost innumerable, but what will the reader say to the following! A farmer in Carlawrock raised this year 11 cart load of potatoes from the same breadth of land which last year produced 130. This is a calamitous state of things, which, pinch as the farmer may by giving little beyond meadow-lay to the bestial, will occasion serious short-coming in a description of crop which Colquhoun estimated at the annual value of fourteen millions sterling: and, if the potatoes be bad, the turnips are so much worse that the opinion gains ground that the return will be under rather than above the fourth of an average. Here and there exceptions exist; but they are exceedingly rare, and, upon the whole, bear the same proportion to failure that the prizes did to the blanks in a state lottery. A friend, who was in Cumberland in the end of last week, observed at every little distance fields of grain to lead, and in a few instances patches of oats to cut, and even barley. Where the land was dry, the natives were busy raising their potatoes; but in all low situations, the water in the furrows and higher up the ridges, precluded the bare idea of such an operation. The turnips, in so far as he was able to judge, are no better than they are in Scotland, and yet, strange to say, the prices of cattle and sheep are rising.

## HOP INTELLIGENCE.

**BOROUGH, Nov. 28.**—Since the declaration of the Hop duty which took place early last week (for particulars we refer to the foot of this) the trade has experienced a decided alteration, and prices have fallen fully 15 per cent. In consequence of the declared amount being quite 15,000 above what was expected a short time back, at the present quotations much business will be done, as the holders must now meet the consumers if they mean to sell. The growth is quite equal to the consumption in *quantity*, if not in *quality*.

### PRESENT PRICES.

	£	s.	£	s.	£	s.	
East Kent, Pockets, fine .. . . .	5	5	6	2	fine	7	7
Bags do. . . . .	5	0	5	12		7	0
Mid Kent Pockets do. . . . .	4	4	5	5		6	12
Bags . . . . .	4	0	4	15		6	6
Weald of Kent Pockets. . . . .	3	15	4	6		5	0
Sussex, Pockets. . . . .	3	10	4	0		4	15
Yealings . . . . .	2	10	3	3		4	4
Old olds . . . . .	1	1	2	2		2	10

**WORCESTER, (Saturday last)**—It was generally expected our Hop market would be much depressed today, in consequence of the duty having turned out more than the late estimate; but we cannot quote more than 2s to 3s per cwt reduction from last week's prices, and very few could be met with even at that

trifling reduction; most of the planters still holding their stock back in expectation of realizing higher prices. It is calculated that full two-thirds of our growth have been disposed of,

An ACCOUNT of the DUTY on HOPS of the Growth of the Year 1836, distinguishing the Districts, and the Old from the New Duty:—

DISTRICTS.	DUTY.	
	£.	s. d.
Barnstaple .....	46	7 0
Bath .....	7	18 8
Bedford .....	141	17 4
Bristol .....	10	17 8
Cambridge .....	26	12 2
Canterbury .....	76,512	1 0
Chester .....	1	4 10
Cornwall .....	10	14 8
Coventry .....	0	6 0
Derby .....	755	16 8
Dorset .....	54	7 10
Essex .....	1,785	7 6
Exeter .....	41	17 10
Gloucester .....	33	15 10
Grantham .....	115	16 4
Hants .....	10,554	15 4
Hereford .....	26,670	3 10
Herts .....	570	7 6
Isle of Wight .....	3	13 0
Lincoln .....	2,970	18 10
Lynn .....	3	15 10
Northampton .....	7	19 0
Norwich .....	5	5 6
Oxford .....	61	13 4
Plymouth .....	11	13 8
Reading .....	24	17 10
Rochester .....	106,993	12 6
Salisbury .....	6,289	17 10
Salop .....	14	19 10
Stafford .....	0	12 0
Stourbridge .....	1,786	18 10
Suffolk .....	903	18 1
Surrey .....	52	0 8
Sussex .....	105,715	6 2
Uxbridge .....	58	7 4
Wales (Middle) .....	226	19 0
(West) .....	0	0 11
Wellington .....	87	17 10
Worcester .....	5,843	16 2
Total .....	£348,404	12 2
Old duty at 1d 12-20 per lb	200,332	12 11 3/4
New ——— 3/4d 8-20	148,071	19 2
	£348,404	12 2

G. A. COTTRELL, General Accountant.  
Excise Office, London, Nov. 21.

REVIEW OF THE HOP TRADE,

FOR THE MONTH OF NOVEMBER.

The above declaration of duty payable on this year's growth of hops, say 200,332l 12s 11 3/4d 15/20 old duty, being much above what was expected some time since, has produced a considerable fall in prices of all descriptions of hops, except for very fine parcels.

It being admitted that the consumption is equal to the present growth, particularly when hops are at moderate rates, it is expected that a considerable demand will immediately take place, as soon as the fall in prices become generally known.

The old duty paid in 1835 was upwards of 235,000l. The principle deficiency this year is in Kent about 35,030 and Sussex 13,000, but the considerable increase in Worcester, Farnham, and the

Clays, has tended to swell the duty to an amount not at all calculated upon by the trade.

PRESENT PRICES.

	£.	s.	£.	s.	£.	s.
Farnhams .....	7	7	to	8	10	fine 9 0
East Kent Pockets .....	5	5	—	6	2	— 7 7
Bags .....	5	0	—	5	12	— 7 0
Mid Kent Pockets .....	4	4	—	5	5	— 6 12
Bags .....	4	0	—	4	15	— 6 6
Weald of Kent Pockets .....	3	15	—	4	6	— 5 0
Sussex Pockets .....	3	10	—	4	0	— 4 15
Yearlings .....	2	10	—	3	3	— 4 4
Old olds .....	1	1	—	2	2	— 2 10

HOP TRADE.

The actual duty appears to have been from 5000l to 8000l more than speculators had assigned as the probable value of the crops; 192,000l to 195,000l being the last bets made. The duty from Kent and Sussex is nearly one-fourth less than that of last year, as detailed below, the increase having been in Hampshire, Hereford, &c.:

	1835.	1836.
Canterbury .....	£ 98,975	£ 76,512
Rochester .....	144,681	106,993
Sussex .....	127,458	105,715
Hants .....	4,386	10,554
Hereford .....	22,704	26,670
Lincoln .....	350	2,970
Salisbury .....	2,464	6,289
Worcester .....	3,480	5,943
Derby .....	20	755

In the early part of the season, growers flattered themselves that the produce of the bines would be abundant, and the duty was estimated as high as 250,000l, the weather, however, proving ungenial, the bines did not thrive as favourably as was anticipated, and the duty receded to 175,000l; and though the Hops came down lighter than was expected, at the commencement of the picking, yet the estimated duty continued to advance until it attained the above sums, and approximated nearly the paid amount. The stock on hand of old is not estimated as large, the demand having been considerable throughout the year, owing to the increased consumption of malt liquor, which by the last official return of the malt duty was 5,664,625 qrs, showing an increase on the previous year of 581,750 qrs, which, taking the calculation of 1lb of Hops to a bushel of malt, which, averaging old and new quality is a fair estimate, is equal to 20,000l old duty, and making the annual consumption rather more than 200,000l exclusive of the quantity consumed by bakers for yeast, so that the produce this season is barely equivalent to the computed demand.

The declaration of the duty has not materially affected the trade; fine coloured Hops being scarce and forming a very small proportion of the bulk of the produce, have maintained their previous currencies, which they are likely to continue to do; but middling and inferior parcels which are pressing on the market, hang heavily on hand, and prices in some instances depending on the offers made; indeed the quality of some is so poor, that it is feared that they will not keep the beer brewed with them. But as consumers have refrained from purchasing, they are now likely to come forward, as the quotations are more settled, which will give the trade more animation, though a considerable disproportion is likely to prevail in the currencies throughout the year, and a wide range to exist between the maximum and minimum points. The following is the duty for the last seven years:

1830.	1831.	1832.	1833.	1834.	1835.	1836.
£ 88027	£ 174864	£ 139018	£ 156905	£ 189713	£ 235207	£ 200332

In 1736 the duty was only 46,482l., and during the last 100 years the minimum duty was in 1782, being only 14,895l. The maximum ranges having been—

1794.	1801.	1808.	1819.	1822.	1826.
£ 203063	£ 241227	£ 251089	£ 242076	£ 203724	£ 269331

## REVIEW OF THE CORN TRADE DURING THE MONTH OF NOVEMBER.

A striking instance of the vicissitudes of our climate, and the frustration of all preconceived operations of the farmer, occurred towards the commencement of the past month, the thermometer sinking below the freezing point, accompanied by one of the most general and heavy falls of snow ever experienced at such an early period of the season. All agricultural operations were suspended; but the frost in unison with snow proved less injurious than if the ground had been exposed to all the intensity of the cold. The unfavourable character of the weather enhanced the demands of holders of wheat, and during the first week in November, the quotations advanced 6s to 8s per qr., which communicated a fresh impetus to all the country markets, especially in the northern and western divisions of the kingdom, where the currencies were already in an excited state from the inclemency of the season. Liverpool vieing with the metropolis in commercial importance, and the merchants and speculators alive to any circumstances which were likely to give a favourable turn to the trade, entered freely into speculative purchases, founded on the weather, the falling off in the receipts from Ireland, and reported deficiency of the potatoe crop in the northern portions of that kingdom, in parts also of Scotland and England, especially Lancashire and Yorkshire, and transmitted large orders to London and its neighbouring counties for fine dry qualities of wheat. Ireland also in want of quality for immediate use, became a purchaser likewise in Mark Lane and on our eastern coast, prices having risen to 40s per barrel for red wheat, orders were being at the same time executed for Scotland; the new wheats being mostly unfit at the moment for millers' purposes, such a combination of circumstances naturally excited speculative spirit, which when once aroused in English markets is often carried beyond due bounds, rendering trade in a fevered and heated state, and advance rapidly succeeds advance; the excitement of one market infects another, which, as it were, inflames again the one from whence the exciting cause originated, until speculators eventually become alarmed at their own creations. The currencies, therefore, continued rising 3s to 4s per qr., until the following high rates had been attained at the leading markets.—In Mark Lane extra fine white wheat realized 76s, and red 68s to 70s per qr., making the rise from the top range of runs of wheat at the close of October 12s to 14s. per qr. At Liverpool English white wheat was worth 10s 6d, and white 10s 9d to 11s per 70lbs. Irish old red 9s to 9s 6d, prime brands of flour were worth 62s to 66s per sack; at Dublin white advanced as high as 45s, and red 42s per barrel. At Edinburgh red wheat attained 51s to 60s, and white 54s to 70s; many speculators confidently anticipated that foreign wheat would be liberated at a nominal duty, and high prices were paid for Bonded wheat; Danzig qualities found buyers at 50s to 56s; Elbe and Baltic reds at 46s, 48s, to 50s; stale old Odessa and Russian at 31s to 32s, and indeed the stalest parcels on hand of any description were not to be had under 30s. The

currencies both of the free and foreign exhibited during the middle of the month an extraordinary contrast with the rates prevailing at nearly a similar period last year, white English wheat being then quoted at 42s to 45s, red at 37s to 39s, showing a difference of 30s to 31s; Danzig at 20s to 26s, and red 17s to 20s. Owing to the extent of the speculative operations and anxiety to purchase foreign wheat, *estafettes* were dispatched to Danzig and other ports in the Baltic with considerable orders, and buyers at home considered themselves fortunate to obtain part of the local stocks, particularly at Liverpool, where Danzig wheat attained a quotation of 7s 9d, and red Baltic fine, 7s to 7s 6d per 70lbs. Towards the end of the third week in November the *mania* showed symptoms of subsiding and the aspirants for obtaining *fortunes* by possession of foreign corn, cooling their heated imaginations, a few began to reflect in something like the following strain:—If this chilly wet month instead of being November, were that of June, if the then forth-coming crops were unpromising, if the stocks of old corn were known to be exhausted, we should have *reason* to look forward to a permanent high range of currency, and to warrant our speculative enterprise; but we must not forget that the harvest in England, taking those counties in which wheat is chiefly cultivated, is an average produce on the common run of seasons; that though in Scotland the growth is deficient, especially in quality with less land sown, yet that the stocks in many districts are large, as well as throughout England; that in Ireland the crop of wheat is an average produce for the bulk of straw, and better in many instances than the yield and quality of last year; but a diminution in the amount of land cultivated and condition inferior, with nearly exhausted stocks; yet on the other hand, nearly the whole of this year's crops is now in the *barns* or *rick yards*; the consumption having been mainly dependent on old wheat, owing to the condition of the new growth;—taking these facts into mature consideration the probabilities are not in favour of the present range of currencies being maintained at this period of the year—to which we may add, that farmers, whose condition, we rejoice is improved, have not been compelled to force their ill-conditioned produce on the market, and through their own necessities to depress the prices against themselves; but now that the quotations have out-run their expectations, having exceeded the maximum point, which would have induced them to sell, they will thrash out freely, especially those parcels in condition, and with drying winds and cold weather an influx of corn will ultimately be pressed on the market, and a decline consequently ensue: such has been the case, and wheat in London has receded 8s to 10s per qr.; at Liverpool, 1s per 70lbs, and at Dublin 6s to 7s per barrel; but in Scotland, the want of fine quality of wheat has checked the decline of the top quotations to the same extent as experienced in England and Ireland. In conclusion, we may briefly remark, that allowing the state of the crops and the stocks of old wheat to be as we have above mentioned,

assuming that the consumption will not continue as lavish as has of late been experienced, the pressure on the money market having affected the manufacturing districts, causing a diminution in work and reduction of labour and wages, and therefore less capabilities to purchase bread at advanced rates, even though the regulations of the New Poor Law Bill may partially increase the consumption of flour, yet we are inclined to deduce the opinion, that the finer qualities of wheat are not unlikely to maintain a high proportionate range of quotation, but that the middling and inferior descriptions will realize much lower relative rates, not however to the extent to reduce the value of wheat below a remunerating point, nevertheless having the effect of checking the averages from obtaining a quotation, that at the prevailing currencies of wheat abroad will permit the entry of foreign corn, unless the appearance of the future crops should prove unfavourable. But, as we are likely to meet the ensuing harvest with exhausted stocks, we shall require a *superabundant* produce in 1837, to enable the consumption to proceed without eventually having recourse to foreign importation.

We regret this month to have to notice a fact connected with Ireland, which has been the cause of temporary inconvenience to the agricultural interests—we allude to the stoppage in the payments of the Agricultural Bank. At the commencement of the current year we drew particular attention to the Branch Banks of this establishment, the beneficial results attendant on the accommodation granted to farmers, enabling them to retain their stock and to avail themselves of a favourable turn of the trade, which was leading to an important revolution in the whole of the agricultural population, creating at the same time a vast change in the Irish grain and provision trade, and producing the anomaly of advancing the prices beyond the currencies of Liverpool and London; though stating that if any check was experienced in the *constant flow of accommodation*, the influx of grain upon the markets was likely to lead to a considerable depression. Though at present not the remotest doubt can exist of the eventual solidity of the Bank, yet that class of persons, the small farmers, depending on the Bank for credit, are likely, in many cases, to be compelled to convert their produce into money at some disadvantage to meet their more immediate engagements, and the belief that such would be the consequence, has not been without its influence on the trade in this country, especially at Liverpool. The occurrence is more particularly to be regretted as it will tend to throw a doubt upon the propriety of granting the same degree of credit to the small occupiers of land, though in the existing state of society in Ireland, it might be rendered of incalculable benefit, if judiciously applied.

The depression we have alluded to continued until towards the close of the month, when confidence having been partly restored in Ireland, and a few fresh orders transmitted from thence to Liverpool and London, with a few purchases for Staffordshire, &c., and also Scotland, the trade made strong efforts to rally, the London currencies improving 2s to 3s, Liverpool 6d per 70lbs, and many country markets slightly advancing. This re-action however, was to have been anticipated, and though slight fluctuations may take place until after Christmas, yet no material rise to the extent previously experienced is likely to ensue, though farmers, by a species of monopoly, will be enabled to keep the supplies down

and control the markets for a time; but this must eventually cease, and prices will equalize themselves. Bonded Wheat again found purchasers; a few fine fresh cargoes of Danzig at 48s, and an extra prime parcel at 52s, and Stettin, 42s.

The new samples of Wheat which have appeared have varied in quality, and been much affected in condition, owing to the prevailing damp weather, added to the soft, tender state in which many were housed, and while alluding to the quality generally, we are sorry to observe the prevalence of smut this season, which infects the samples more or less throughout the kingdom. No blight being so injurious to the miller as smut balls, it had therefore become a material desideratum in agricultural economy, that some method should be adopted of cleansing the grain from this evil attendant. We have lately inspected a REEING MACHINE, erected at the Mills of the Messrs. Pavitt, at Rotherhithe, invented by Mr. W. W. TUXFORD, of Boston, Lincolnshire, which seems to have most effectually attained the object in view; the construction of the machine being as remarkable for its simplicity as it is for the efficacy of its operation. One machine with half-horse power can clean nine quarters per hour, and as there is little friction in working, the machine is extremely durable. The cleansing properties are not confined to smut balls, but sprouted, mouldy, and perished grains, rat and mouse dirt, worms and weevils, are removed with equal facility, and while the loss in measure is trifling, the improvement of the sample in quality is, in many instances, from 3s to 4s per qr, and even more in some instances, where the wheat is previously much deteriorated with extraneous matter.

The millers have not been slow in taking advantage of the rise in wheat to enhance the price of flour, which advanced rapidly to 60s per sack, and some manufacturers naming at one time 65s, but not being enabled to establish this maximum quotation, the nominal price remained at 60s; the succeeding week it receded to 55s, owing to the reduction in the value of the raw article, at which rate it remains firm; but the short duration of the rates at 60s, is, in part, attributable to two influential parties, who, having made large sales at stated prices on delivery, were anxious to keep down the quotations as much as possible; and wheat continuing to decline the ensuing week, they succeeded in effecting their object, which, though beneficial to the public, was not at all in accordance with the views and wishes of the trade. The business latterly has, however, been languid; most of the country orders having been executed early in the week, and the bakers of the metropolis having, just previous to the rise, purchased largely from our town makers, have not been anxious buyers.

Little Bonded Wheat has been exported during the month, and shipments latterly, have entirely ceased to the United States, as well from England as the Baltic ports, owing to the high range of the currencies, and the speculative feeling afloat in this country, that the article will be required for our own consumption; it is therefore not unlikely that the anticipation on the other side of the Atlantic, of not receiving further supplies from these quarters of Europe, may have a considerable effect on the value of wheat in America, provided actual deficiency exists to the extent represented.

The averages are now exhibiting the effects of the advance in wheat and other grain. In the general averages of the kingdom, the quantities of wheat reported as sold, or rather, the different parcels which have changed hands, many of them several times

over, are considerably augmenting, having amounted in the two latter weeks together, to 267,000 qrs, at an aggregate average of 55s 6d to 60s 4d, making the average of the six weeks 51s to 52s. The duties on wheat during November have, however, only receded 4s, being 35s 8d; the reduction in the duty on Barley has been 3s, on oats, 3s, on rye the same amount, on beans, 1s 6d, and on Peas, 6s.

The supply of barley, as was to have been anticipated, has considerably increased the past month, having exceeded 53,000 qrs; and though at this season an active demand prevails usually for the article, yet the trade has continued languid and the currencies latterly receded 1s to 2s per qr on the finer descriptions, and 2s to 3s on inferior sorts. The principal cause of this heaviness has arisen from the high prices affixed to the finer malting parcels, checking the purchases of maltsters. The malt trade having remained dull and unrelieved by the purchases of the larger consumers, whose stock of old malt has kept them off the market, added to the expected import of several cargoes of good distilling and grinding barley from the Lower Baltic and Hamburg, and a few parcels of malting quality from Bohemia and the Saale, has effectually prevented any animation in the trade; and if the duty remains at 6s 4d, or should decline to 4s 10d, all the foreign in warehouse and afloat will be brought free on the market, and if the northern ports remain open longer than usual we may continue to receive shipments principally of secondary and inferior quality during most part of the winter.

The receipts of Oats from England and Ireland have been considerably larger than during October, and the trade having been influenced by the extensive purchases made of foreign Oats, which are likely to be admitted at a duty at the highest of 7s 9d, has prevented any extensive operations, more especially as the prices free on board in Ireland have ranged extremely high, say from 14s to 15s 6d per brl, and 16s to 16s 6d is demanded for the finer descriptions. The principal business, however, latterly transacting, has been the re-sale of purchases previously made for forward delivery by parties who had come in at lower figures. During the month the fine fresh parcels of English and Scotch Oats have advanced 6d to 1s per qr, and have come sparingly to hand, and the better samples of Irish have slightly fluctuated, having advanced 1s per qr, and being now about 6d per qr higher than at the close of October. Oats in Bond have advanced 2s to 3s per qr, good fresh feed being noted at 18s to 20s, and Brew 22s to 25s, and prices abroad have advanced in proportion to the reduction in the duties in this country.

The demand for Beans has continued unabated, and though the duties have receded and are likely to decline to 3s 6d per qr, yet the currencies have kept advancing, and are 4s per qr higher on old qualities and fine dry new; middling qualities also of new have improved about 2s, sales in bond have been made at from 40s to even 48s per qr.

The high price for all articles of feed has caused more demand to exist for Peas; good boiling qualities have been in limited supply, and the sale proving free, quotations rose 5s per qr, and Grey and Maple 5s to 6s. The duties, however, having declined during the month 6s per qr, and more samples coming forward, caused the article to give way fully 2s, making the improvement 3s to 4s per qr since October and the trade steady.

During the month of November the following quantities of Grain and Flour have arrived in the port of London:—

	Wheat. qrs.	Barley. qrs.	Malt. qrs.	Oats qrs.
English .....	36,029	53,085	21,455	25,089
Scotch .....	..	1,645	286	11,568
Irish .....	..	1,891	190	73,771
Total in Nov.	36,029	56,624	21,931	110,428
Total in Oct.	30,490	27,938	22,337	46,315
Total in Sept.	42,217	4,691	26,770	71,066
Foreign in Nov.	6,287	2355	...	12,526
	Beans. qrs.	Peas. qrs.	Linseed. qrs.	Flour. sacks.
English .....	6,773	6,701	269	40,894
Scot'h .....	...	...	...	470
Irish .....	...	...	...	50
Total in Nov.	6,737	6,701	269	11,414
Total in Oct.	7,648	6,267	...	32,755
Total in Sept.	3,724	4,332	17	32,170
Foreign in Nov.	613	314	11,176	Iris. 4,073

In Canada the prices of wheat remained steady, Upper Canada white being worth 7s to 7s 6d per 60lbs, mixed 6s 6d to 6s 9d; superfine flour 45s, fine 42s 6d. The weather has been extremely unseasonable, snow succeeding rain with frost, which, though not severe, might, it was feared, prove injurious to the potato crop.

At Hobart Town, Van Diemen's Land, prices of wheat had receded, being noted at 7s to 8s 6d per bushel; Flour had declined 3s per 100lbs, being noted at 27s. The weather was remarkably fine for the operations of the plough and harrow, and a large extent of corn land had been sown under the most favourable circumstances. At Launceston, wheat was held at 9s to 9s 6d per bushel, owing to a few shipments still being made to Sydney, where, however, the currencies were ranging much lower, 10s per bushel being the average rate; at the same time that the weather was extremely favourable for the forthcoming crop.

At Odessa, as well as Taganrog, wheat had rather receded in value, and was noted at the latter port at 21s per qr for hard quality; soft quality at Odessa had obtained 21s to 24s 3d in retail, with little doing; but hard wheat in request at £2s 4d to 22s 11d, Indian corn very scarce. Vessels were extremely scarce, which checked the shipments from the Black Sea. At Odessa, there were in granary about 267,000 qrs of soft wheat, 25,200 qrs of hard, about 5,000 qrs of Oats, and 4,300 qrs of Barley, besides 14,000 qrs of Rye.

With the exception of a few of the Southern markets in France, most of the leading markets throughout the kingdom, having been more liberally supplied with wheat, are either on the decline or dull, and prices nominal; the raw material now feeling the decline which had already taken place in the manufactured article of flour, though there are, however, some important points where the demand continuing active, the previous rates are maintained: Soissons, for instance, is receiving various orders to purchase, some from the millers on the Oise, some from Ronen, some from Caen, and others from Bourdeaux; to the present period the large receipts of new wheat which are brought to market about this period assisted by old samples, the stocks of which are still considerable, have been fully sufficient to meet the current wants; but it is probable, that if the same demand continues, the supplies in certain districts may not prove equivalent, and then the currencies would rapidly improve: prices at Paris are from 36s 6d to 37s 6d per qr for the better descriptions. The advance in Mark Lane, and throughout the Baltic, had

had no effect on the Parisian currencies. At *Marseille*, though the supplies were sufficient to meet the demand, yet prices were supported, and the stocks much reduced; foreign wheat in *Bond* had experienced an improved demand, at rather better prices, considerable sales having been made on delivery, principally for the earlier months of the ensuing year.

At *St. Petersburg* an improved demand had been experienced for Rye, which has gradually advanced to 17s 10d per qr. for delivery in May and June, with 5 to 6 roubles in advance. The new linseed was favourably reported, both as to quantity and quality; *Morschansky* and the fine qualities were offering for delivery for July to the middle of August at 38s 5d to 39s 9d, with 10 roubles per tschetwert advance; fine *Moscow* was also to be had at the latter price. At *Riga*, *Courish* Wheat had been purchased for shipment to America at 27s 4d to 29s 1d. Oats obtained 12s 1d to 12s 10d, and barley, 16s 8d to 17s 7d both of *Courish* growth, which is particularly desirable, because it is of better quality than *Russian*, and is brought to the city during Winter, and can therefore be shipped first open water in the Spring. The crops not being abundant, there is not much probability of being able to purchase at lower rates. Some purchases have been made of *Russian* and *Courish* Rye at 17s 3d. At the commencement of the past month more or less activity had been observed in the trade at *Danzig* for all sorts of grain, and especially for the inferior and middling sorts of wheat considerably higher prices had been paid, and much higher relatively than for the finest runs; the ardour of buyers however had been checked, partly by the increased demands of the factors, partly by the lateness of the season, and the high granary rent equal to 1s 6d per month per last, and partly by the pressure on the money market, and difficulty of procuring discounts, and consequently holding stock. On the arrival however of advices from London of the 4th inst., announcing the rapid rise in our wheat trade, several hundred lasts were purchased, and more would have been taken had not holders withdrawn their samples; real fine highmixed wheat of 1834, was sold at 39s to 41s, and real fine of 1835, obtained the same rates; the common runs of fine highmixed realizing 36s, real good mixed 34s, being a rise of three to five shillings per qr., and when it is considered that in addition to the stocks available, on the market there were orders transmitted for resale of parcels in Warehouse held for British account, it could not have been anticipated that their enhancement would have been to a greater extent. Granary rent and expenses had advanced to 2s per last per month. Rye had only risen to 17s 9d and 18s per qr. At all the ports, as they approach the lower districts of the Baltic, where later accounts of the excited state of the English markets have been received, they have more or less participated in the improvement. At *Stettin*, the limited extent of the stocks checked the transaction of business, but purchases of superior quality of Polish mixed Wheat had been made at 33s, and *Silesian* at 31s 6d, and prices in the Spring were expected to rule at about 33s to 34s, unless the quotations from England materially advanced. Barley for Spring shipment was held at 16s 6d to 18s. Light Oats at 12s 6d to 12s 9d. At *Rostock*, the stocks of fine old Wheat are nearly exhausted, and owners were holding firm at 33s to 34s 6d, and even 36s was named. Stained and damp Barley, not free from smell, has obtained 20s 3d for English account. No new Oats were offering, but boiling Peas were held at 25s 6d. In *Holstein* the prices have ad-

vanced about 3s per qr., old Wheat, or old and new mixed, being held at 33s to 34s, weighing about 62 lbs. New Wheats for Spring shipment were quoted at 32s; fine Barley, secured before the rain, was not to be obtained under 20s, and common runs at 18s to 18s 6d per qr. Fine old Oats, 17s; old and new mixed, 16s to 17s, new, 15s per qr. White Peas, 26s to 26s 6d. At *Hamburg*, the trade is participating in the excitement of the English markets, fine old Polish Wheat having realized 44s 6d; and fine old Upland, 41s; new Upland, 39s to 39s 8d per qr. Before the departure, however, of the letters, the mail of the 11th had come to hand, reporting an additional advance of 4s to 5s, especially in Bonded Corn; and though time was not allowed for actual sales to be reported, yet the pretensions of holders were considerably elevated, as we have heard of offers being sent here, for Spring delivery, for fine old Upland Wheat, at 50s. Malting Barley was held at 27s 3d for immediate delivery, and 25s 11d for Spring shipment, and extensive contracts made for distillers and grinding qualities, for future delivery at the out-ports, at 18s 6d to 22s; considerable contracts had been also entered into for Oats at 14s to 15s 10d, according to quality, and place of shipment, from the *Jahde* oats were selling at 16s 4d. In *Holland* wheat had advanced 6s to 7s per qr during the last ten days, old *Rhenish* being held at 42s 4d to 43s 2d per qr. Oats had advanced, and heavy quality of 45lbs had brought 22s 7d; 43lbs 19s 1d to 19s 4d; old feed, 17s 4d. The trade has remained firm at *New York*, and *Western* canal flour free sale at 43s 4d to 43s 10d per barrel. The demand for Southern flour from new wheat, was very limited, the quality being indifferent. Foreign wheats were realizing 71s 6d to 73s 4d per qr, and a fine parcel of German in good condition, was held at two dollars 12½ cents or 77s 11d, being the only large parcel left on hand on the 30th of Oct., the market being reported steady. At *Philadelphia* the transactions in flour were considerable and prices had advanced to 42s 9d per bbl, and the receipts small. Wheat also met demand at improving prices, which ranged according to quality, fine old, at from 73s 4d to 77s, and new 58s 8d to 64s 2d; Rye 45s 10d to 46s 2d. At *Baltimore* flour was firm at 42s 9d, but the business on a moderate scale, wheat varying as in quality from 45s 10d to 73s 4d. Cloverseed in America is meeting improved demand owing to the failure in the Southern States; at *New York* 6d per lb was being paid, and at *Philadelphia* 24s 9d to 28s 1d per bushel. At *New Orleans* flour remained at nine dollars 25 to 50 cents, but at these rates purchasers refrained from buying beyond their immediate wants. The account showing the increased receipts from the interior at this city, and extensive capabilities of exporting, are of much interest at this particular period, being more considerable than many would have anticipated, though no doubt the augmenting demands of Cuba, &c., require a large proportion of the surplus supplies. The following are the imports of flour during the last ten years. A diminution has however occurred since the year 1834, which, except the prolific year of 1831, exhibits the largest amounts of arrivals. The periods are calculated from the 30th of Sept, in each year.

	1827	1828	1829	1830	1831
	brls	brls	brls	brls	brls
	131,096	152,593	157,323	133,700	360,580
	1832	1833	1834	1835	1836
	brls	brls	brls	brls	brls
	210,887	262,739	326,660	285,705	287,191

**CURRENCY PER IMPERIAL MEASURE.**

	BRITISH.		Nov. 1.		Dec. 1.	
	s.	s.	s.	s.	s.	s.
Wheat, red, Essex, Kent, Suffolk.....	44	57	46	66		
White.....	48	62	52	69		
Norfolk, Lincolnshire and Yorkshire.....	40	52	48	60		
White, do. do.....	46	56	50	64		
West Country Red.....	40	52	—	—		
White, ditto.....	47	56	—	—		
Northumberland and Berwickshire Red.....	—	—	—	—		
White, ditto.....	—	—	—	—		
Irish Red.....	—	—	—	—		
Ditto White.....	—	—	—	—		
Barley, Malting, new.....	38	40	36	40		
Chevalier, new.....	38	43	38	42		
Distilling.....	34	37	32	35		
Grinding.....	32	35	28	31		
Irish.....	28	32	26	28		
Malt, Brown.....	47	55	48	54		
Ditto, Chevalier.....	64	67	64	67		
Ditto, Norfolk and Suffolk Pale.....	54	65	56	65		
Ditto Ware.....	61	66	64	66		
Peas, Hog and Grey.....	37	40	33	40		
Maple.....	38	41	31	39		
White Boilers.....	28	45	38	48		
Beans, small.....	41	48	47	52		
Harrow.....	41	46	45	50		
Ticks.....	34	45	40	49		
Mazagan.....	36	40	34	46		
Oats, English feed.....	26	62	29	63	28	63
Short small.....	29	31	30	32		
Poland.....	30	32	31	33		
Scotland, Common.....	29	30	29	31		
Berwick, &c.....	28	31	29	32		
Potatoe, &c.....	32	33	32	34		
Irish, Feed.....	24s 0d	27s 6d	26s 0d	28s 0d		
Ditto Potatoe.....	27s 0d	29s 6d	27s 6d	30s 0d		
Ditto Black.....	26s 0d	27s 6d	26s 0d	28s 0d		

**PRICES OF FLOUR,**

	Per Sack of 250 lbs.		Nov. 1.		Dec. 1.	
	s.	s.	s.	s.	s.	s.
Town-made.....	42	48	50	55		
Norfolk, Suffolk, Kent, and Essex.....	36	39	41	48		
Sussex and Hampshire.....	35	36	42	46		
Superfine.....	37	—	47	—		
Lincolnshire, Yorkshire, and Stockton.....	34	37	44	46		
Northumberland, Berwick, and Scotch.....	33	36	42	45		
Irish.....	35	39	42	48		
Extra.....	40	—	56	—		

**PRICE OF SEEDS, Nov. 28.**

The foreign advices generally report a firmness in the prices of red Cloverseed; at Hamburg a demand continuing for English account, and the stocks being limited, prices were on the advance; old red Upland was noted at 46s to 54s; new, 49s to 55s 6d; and white, 46s to 57s per cwt. The deficiency in the Dutch crop, and request for export of red seed are having the effect of elevating the prices in Holland; new Upland being noted at 54s to 58s, and 49s to 53s for old; new Lowland varies much in quality, at from 44s to 54s per cwt. white is more plentiful and brisk at 48s to 54s. Prices noted from France are for the most part higher; at Paris good new seed is held at 52s to 54s, old meeting with little inquiry; at Rouen, new Cloverseed was held at from 52s to 56s; at Angers, all the seed offering at the *Fair* had been bought for England, Nantes, Caen, Honfleur, and Havre. The tone, however, of our trade has not been improved last week by some sales effected, free on board, in France, by a French house now here, at prices below the prevailing value in our market.

The Clover-seed trade closed dull and barely last Monday's rates maintained. The arrivals of foreign comprised 227 bags from ROTTERDAM, 159 casks and 59 bags from HAMBURG, and 200 bags from ANTWERP. White seed unaltered in value, but little doing. Trefoil participates in the dulness of Cloverseed. Linseed steady in price. In Rapeseed no variation; Hempseed is held at the rates noted last week. Caraway was heavy sale and rather cheaper; it being difficult to obtain more than 50s Coriander meets rather more attention at from 11s to 13s. The new Canary continues to come to hand inferior and much out of condition and hangs on hand at 44s to 47s; old is held at 49s to 50s. Mustard unaltered in value. Tares dull at 5s to 5s 6d. Linseed cakes saleable at full prices. The foreign supplies have been—

57 tons and 62,192 cakes of Linseed Cakes from AMSTERDAM; 13,400 cakes from ROTTERDAM; CALAIS, 15,000 ditto; BREMEN, 47 ton of ditto.

**IMPERIAL AVERAGES.**

Week ending	Wheat.		Barley		Oats		Rye		Beans		Peas	
	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
14th Oct.	47	0	35	3	24	0	33	10	41	5	38	10
21st "	47	7	35	5	24	3	32	3	41	8	40	8
28th "	40	7	32	10	25	0	33	6	41	7	41	4
4th Nov.	51	8	37	10	25	10	34	6	41	10	42	5
11th "	55	6	38	11	26	16	36	4	41	4	43	11
18th "	60	4	39	10	27	6	39	6	46	4	44	10

Aggregate average of the six weeks which regulates the duty..... 51 11 37 4 25 7 34 11 42 10 42 0

Duties payable in London till Wednesday next inclusive, and at the Outports till the arrival of the Mail of that day from London..... 35 8 6 4 9 3 18 3 6 6 6 6

Do. on grain from British possessions out of Europe.... 5 0 2 6 2 6 3 0 3 0 3 0

Foreign Flour, 22s 8d per 196lbs. British Possessions, do. 3s per 196 lbs.

**STOCK OF GRAIN, FLOUR AND CLOVERSEED IN BOND IN THE PORT OF LONDON ON THE 5TH NOVEMBER.**

Wheat.	Barley.	Oats.	Beans.	Peas.	Flour.	Clovers.
qrs.	qrs.	qrs.	qrs.	qrs.	cwts.	cwts.
230,897	6,634	71,947	3,740	802	19,292	32,791

Rye, — qrs

An Account of the Quantity of Grain and Flour imported into the United Kingdom during the month ending the 5th Nov., 1836; the Quantity on which the Duty has been paid for Home Consumption, and the quantity remaining in Warehouse.

	Wheat.		Barley.		Oats.		Rye.	
	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
Quantity imported.....	18,097	2,552	10,130	1,559				
Do. entered for home consumption.....	1,649	5,971	1,638	..				
Do. remaining in warehouse.....	578,650	33,457	241,955	6,719				
		Peas.	Beans.	Maize.	Flour.	Flour.		
		qrs.	qrs.	qrs.	cwts.	cwts.		
Quantity imported.....	2,603	974	..	28,710				
Do. entered for home consumption.....	176	30,996	..	7,586				
Do. remaining in warehouse.....	6,128	25,219	21	167,440				

An Account of the quantity of WHEAT and OATS and OATMEAL, the whole reduced into QUARTERS, which have been shipped from IRELAND into GREAT BRITAIN, during the last twenty-one years, commencing 1st January, 1816, and ending 1st January, 1836.

Year ending Jan. 1.	Wheat.	Flour.	Total.	Oats.	Oatmeal.	Total.
	qrs.	cwts.	qrs.	qrs.	cwts.	qrs.
1816	159188	106243	189544	576545	32988	597367
1817	98205	81993	121631	662549	33259	685714
1818	50842	16238	99025	594438	26211	611117
1819	45677	33258	108230	1001248	107073	1069958
1820	137308	92894	154021	759009	47150	789613
1821	351872	180373	401747	892665	37063	919650
1822	185479	294774	569700	1121234	61451	1162349
1823	375681	305921	664094	519464	31073	599237
1824	290311	384032	400668	1023364	99194	1102487
1825	260322	336219	353408	1139462	134550	1235056
1826	283340	394374	396018	1500261	203644	1629855
1827	241925	255240	314851	1179896	191602	1300724
1828	307646	341630	405255	1290396	225160	1343676
1829	471994	621569	652581	1805336	424719	2075631
1830	340081	626268	419483	1417728	402127	1629628
1831	337641	672224	529717	1226486	400347	1471252
1832	407414	524242	557520	1285738	581371	1635934
1833	552740	341434	572586	1662786	61142	1896212
1834	541742	1039588	811201	1333533	642653	1792519
1835	462229	110464	779504	1277598	772991	1747910
1836	340533	1124344	661776	1462580	566007	1822766

**WOOL MARKETS.**

**BRITISH.**

The English Wool trade continues in a most perplexing condition, prices nominal according to the nerve of the holder; as nearly all the year's produce have changed hands from the grower to the dealer, as manufacturers have been too wise generally this season to be over-burthened in a retreat, as in the present re-action the staplers and dealers have half the year's produce on hand, and to offer any part of it at the present time is indeed useless at any price. A reduction of 1d to 2d per lb. has been submitted to in many cases for sorts which have been inquired after, for only in such cases could sales be made, as in the present state of the money market no manufacturer will purchase only just such sorts, and in such quantities as is absolutely necessary for immediate use; many holders however have determined not to submit to general reduction until the Spring, well knowing that there were no old stocks on hand of English Wool at the last clip, and the clip of the current year being short (in some of the dry districts nearly a third in quantity,) that a moderate steady consumption will take off the last clip ere another can come in operation; so that in all probability late prices will be again realized in a very few months. At such times as the present when money is scarce, and several failures taking place, there are always to be found necessitous and timid persons to accept any price that may be offered; in a few cases this has been done, and yet some may be found to do so, yet the quantity so available is not considerable. Upon the whole English Wool was bought too high this last summer for dealer or manufacturer to realise any remuneration, even before any reaction took place, and the agriculturist may congratulate himself in obtaining 3s or 4s per tod more for this wool than the dealer could make, in consequence of the competition at the Wool Fairs, an evil to the wool trade which will work its own cure, or ruin the dealer on whose shoulders the present burthen rest heavily. Kent Wool seems to suffer most depression, which may be accounted for by the failure a French house, and another at Canterbury, and which wool was probably the most unnecessarily advanced to os high a price,—prices may be quoted as follow :

	Per lb.	NOVEMBER 1.		DECEMBER 1.	
		s. d.	s. d.	s. d.	s. d.
Down Tegs.....		1 9	to 1 10	1 8	to 1 9
Half-bred do.....		1 9½	to 1 10½	1 9½	to 1 10½
Ewes and Wethers.....		1 6	to 1 6½	1 5	to 1 6
Leicester Hogs.....		1 5	to 1 6	1 5	to 1 6
Do. Wethers.....		1 2½	to 1 3½	1 2	to 1 3
Blanket Wool.....		0 9	to 1 3	0 8	to 1 4
Flannel.....		1 3½	to 1 8	1 2	to 1 9
Skin Combing.....		1 5	to 1 7	1 2	to 1 6

**LIVERPOOL.**

WEEK ENDING NOVEMBER 26.

**SCOTCH WOOL.**—There has been considerable more inquiry for Laid Highland wool this week, and although the transactions have not been numerous, our quotations have been fully supported. In cross and Cheviot wool the transactions have been limited, and barely support our quotation.

	per stone of 24 lbs.	
Laid Highland Wool, from 12s 3d to 12s 9d		
White do. ....	15s 6d	16s 6d
Laid Crossed do. ....	15s 0d	16s 0d
Washed do. do. ....	16s 0d	17s 0d
Laid Cheviot do. ....	18s 0d	20s 0d
Washed do. do. ....	26s 0d	28s 0d
White do. do. ....	32s 0d	36s 0d
Import for the week.....	414 bags.	
Previously this year.....	20399 do.	

**ENGLISH AND IRISH WOOLS** continue in the same dull, inactive state as formerly. A small lot of Irish hog wool has been sold as 1s 5d per lb., which may be said to constitute the entire business of the week.

**ENGLISH WOOL.**—Down ewes and wethers, 18d to 19d; Down tegs, 20½d to 21½d; combing fleece, 18d to 19d; combing skin, 17d to 19d; super. skin, 18d to 19d; head skin, 16d to 18d per lb.

**IRISH WOOL.**—Irish fleeces, mixed lots, 16½d to 17½d; Irish wethers, 16d to 16½d; Irish hogs, 17½d to 18½d; Irish combing skin, 15d to 16d; Irish short skin,

14d to 16d per lb. Import this week, 20 bags; this year, 5,246 bags.

**FOREIGN Wool** has been rather brisker since Monday last; the inquiry has been principally confined to Peruvian for which holders have gladly accepted the offers which have been made. The imports of the week amount to 680 bags. The stock on hand of foreign wool in this market is at present large, and far exceeds the demand. Holders, to effect sales, seem inclined to entertain any offers which may be made.

**Current Prices.**—Russian wool, 8½d to 9½d; Odessa, fine, 2s to 3s 6d; Buenos Ayres, 4d to 5½d; Mogadore and Barbary, 4½d to 6d; washed Peruvian, 14d to 16d; unwashed ditto, 11d to 12d; Portugal R., 1s 5d to 1s 7d; ditto, low marks, 1s 0½d to 1s 2½d; German fleeces, 2s 2d to 2s 6d; ditto assorted, 2s 6d to 2s 9d; ditto lambs, 2s 6d to 3s 6d; Spanish R., 2s 6d to 2s 9d; ditto F.S., 2s 2d to 2s 4d; New South Wales, 2s 0s to 2s 9d per lb. Imports this week, 680; imports this year, 44,040.

**FOREIGN.**

Nov. 28.

Electoral Saxony wool, from 4s 6d to 5s 6d; first Austrian, Bohemian, and other German wools, 2s 8d to 3s 8d; second do., 2s 0d to 2s 6d; inferior do. in locks and pieces, 1s 6d to 2s 0d; do. lamb's do., 2s 6d to 3s; Hungarian sheep's do., 2s to 2s 6d; Leonesa sheep's do., 2s 6d to 3s 4d; Segovia do., 2s 0d to 3s; Soria do., 2s to 3s; Caceres do., 2s 6d to 3s; Spanish lamb's wool, 1s 6d to 2s 6d; German and Spanish cross do., 2s to 3s 2d; Portugal sheep's do., 1s 6d to 2s 6d; do. lamb's do., 1s 4d to 2s 4d; Australian, fine crossed do., 2s 4d to 3s 4d; do. native sheep's do., 1s 8d to 2s 6d; Van Diemen's Land native sheep's do., 1s 6d to 2s 8d; Cape of Good Hope do., 1s 6d to 3s.

**POTATOE MARKET.**

**WATERSIDE, —SOUTHWARK, Nov. 28.**—The supply of potatoes coatways during the week has been limited, chiefly from Guernsey and Jersey, whence about eight vessels have arrived and the consumption is now becoming dependent on Guernsey, Jersey and Devonshire; from the latter county the potatoes come very superior and take the lead of the market. From Scotland during the season not more than eight cargoes have been received, and in consequence of the wet succeeded with frost, the article proves very inferior, so much so, that even the few parcels offering are heavy sale at declining prices. The very small portion of the crop in Scotland which was lifted before the inclement weather set in, proves of good quality, and is bearing higher proportionate rate; than are being paid in London. Notwithstanding the short supply, the sales continue heavy, which is to be attributed partly to the mildness of the weather checking consumption, and in part to the advancing tendency of the quotations, which induce dealers to refrain from purchasing in anticipation of increased arrivals. No Irish at market; subjoined are the prices paid this morning.

	Per ton.	Per ton.	
Yorkshire reds.....	—s to 90s	American natives.....	—s to 80s
Scotch do.....	70s 0s	Jersey & Guern. Blues—s	65s
Devonshire do.....	85s 90s	Do. whites.....	65s 70s
Kidneys.....	—s 80s	Chats.....	35s 45s
Shaws.....	—s 70s	Irish none at market.	

**THE BONE MARKET.**

LONDON, Nov. 26.

There has been a steady demand all the week for rough bones, and prices remain firm at 54s to 56s per chaldron.

In Hull no alteration to quote.

In the principal ports on the continent no change has taken place since last advices.

**BONES.**

Since our last there have passed the SOUND or ELSINORE, the GREAT BELT, and the HOLSTEIN CANAL, ships loaded with Bones, bound for Hull, 2; other parts of England, 1. For Aberdeen, 2; Newburgh, 1; other parts of Scotland, 2.



## TURF INTELLIGENCE.

The racing season closed (the Newmarket Houghton Meeting) under the frigid influence of a stern commencement of winter, attended by the unusual circumstance of a heavy fall of snow, which, our readers are very well aware, took place on the close of the month of October; in consequence, the amusement became very much neutralized, and much vexatious disappointment was experienced in consequence of the untoward and highly inauspicious state of the weather. Nothing occurred at the Houghton Meeting which demands particular notice, if we except, perhaps, the contest between Bay Middleton and Elis, which ended in the defeat of the latter; thus verifying our prediction. These nags had met in the previous Spring at the same place (Newmarket), where, after a struggle of extraordinary severity, Bay Middleton proved the winner by a head. The speed of these two superior nags was as nearly equal as possible; but their treatment during the Summer was widely different. Bay Middleton, after his success on Epson Downs for the Derby, which he won with the greatest ease, was carefully nursed and reserved for the close of the season; while Elis was subjected to a course of exertion, during that period, unusually severe, particularly on account of the extra weight placed on his back. How far it was wise in Lord Lichfield to force so good and so highly promising a colt through so much and such severe exertion, is a question which most concerns his lordship; but it can scarcely fail to produce the worst effects upon his system, and render his future running very problematical. Elis might be said to be made up earlier than usual, which circumstance, added to his conformation (being deep ribbed), enabled him to sustain or go through more work than ought to fall to the lot of any three-year-old. His future progress will be interesting, and we shall not fail to watch it. His successful opponent (Bay Middleton) is a splendid animal, but not so much made up as Elis, and therefore Lord Jersey evinced good judgment in not subjecting him to unreasonable exertion.

The Subscription Rooms at Tattersall's was but slenderly attended during the month of

November, nor has any very great or decisive alteration taken place in the odds since our last publication: however, it may be remarked, that Defender has crept up, and stands at precisely the same figure as Brother to Bay Middleton and Jereed; so that the list presents the extraordinary appearance of three equal favourites for the Derby. Flare-up is rising in public favour, and a similar remark may be applied to Wintonian. We scarcely heard the Oaks mentioned throughout the month.

On Monday, Nov. 21, Flare-up was in request, and something was adventured upon him at  $8\frac{1}{2}$  against him; so far he might then be said to have the call.

## STATE OF THE ODDS:—

## THE DERBY, 1837.

9 to 1	—	Colonel Anson's Jereed
9 — 1	—	Lord Jersey's Brother to Bay Middleton
9 — 1	—	Mr. Sadler's Defender
15 — 1	—	Mr. Gardner's Phantasima colt
16 — 1	—	Lord Jersey's Flare-up
16 — 1	—	Duke of Grafton's Dardanelles
20 — 1	—	Mr. Wreford's Wintonian
20 — 1	—	Mr. Greville's Mango.
25 — 1	—	Mr. Osbaldeston's Pocket Hercules,
30 — 1	—	Mr. E. Peel's Clifton.
30 — 1	—	Mr. Wilson's Silvertail colt.
40 — 1	—	Lord Chesterfield's Miss Clifton colt.
40 — 1	—	Lord Exeter's Brother to Augustus.
50 — 1	—	Mr. Cooke's Norgrove.

We last month received an account of Nottingham races from an eye witness and an inhabitant of the town, containing some remarks on the conduct of the judge, in his decision for the King's Hundred, which was given to Mundig, erroneously so, according to the statement of our correspondent; in justice to all parties, we insert the following letter:—

## THE LATE NOTTINGHAM RACES.

TO THE EDITOR OF THE MARK-LANE EXPRESS.

Sir,—Noticing in your valuable and extensively-circulated paper of the 31st of October last, a report and some remarks as to the race at Nottingham, for his Majesty's Plate of one hundred guineas, between Mundig, Sylvan, and Goldbeater, one of the finest contested exertions of animal power and speed between the two former horses ever witnessed, and of fairness of decision of the judge, Mr. Pyatt, that man could give, in justice to whose honourable conduct, I feel pleasure in communicating to you, that not a gentleman of respectability who had bet on the race, and who heard in whose favour it was given, had the least doubt of any unfairness of decision on the part or the judge of such race; and that every gentleman most honourably paid his losings, without the least scruple or doubt; thereby proving that they were perfectly

satisfied that Mundig had fairly won, and that the decision was honourable to the judgment of Mr. Pyatt, who never bets a shilling on the result of any race whatever; so that it cannot possibly be said of him, that he had any sinister view in giving other than a correct decision.

With regard to your correspondent, Mr. William North, of Nottingham, sub-reporter or collector of news for *The Nottingham Review*—besides being an excellent judge of a race—he has ventured to impugn the character of the judge, and to cast a most unnecessary and undeserving odium upon him, without even the slightest cause whatever. It is a maxim with you, I am happy to observe, "*audi alteram partem*," (to hear both sides), and therefore, through the medium of your valuable publication, I feel it a duty to bear honourable testimony to the character of Mr. Pyatt on this as on all other occasions. From the position in which Mr. William North stood during the race, amidst an anxious crowd of spectators, shouting, moving and restless, I defy him to say which horse absolutely won the race. I defy him, too, to impugn the character of the judge on that or any other occasion or transaction in life! and as little as that worthy and officious gentleman could do, would he be to apologize to Mr. Pyatt, and the public for the erroneous and wilful mis-statement he has been pleased to make on this occasion.

I remain, Sir, your most obedient servant,

AN OLD SPORTSMAN.

Nottingham, Nov. 10, 1836.

Guided by even-handed justice, we insert the following letter of Mr. Osbaldeston, and also the decision of the Jockey Club on the disputed event. Those unacquainted with the circumstance to which the following communications allude, we refer to our preceding number.

#### THE DISPUTE AT THE LATE YORK OCTOBER MEETING.

TO THE EDITOR OF THE YORK HERALD,

SIR.—Various reports having been circulated to my prejudice, relative to the Ladies' Tea Service, run for last week at York, I have to request the insertion of the following facts in your journal:—First, with regard to the charge of my riding against Captain Williams. In entering on my defence, I beg leave to disclaim any intention of impugning the decision of the Stewards, but as they decided on the evidence Capt. Williams submitted to them, without giving me an opportunity of producing mine, it is necessary I should trouble you with my statement.

In all cases of crossing or jostling, the jockies are invariably examined, and their evidence is generally conclusive. The four jockies nearest Capt. Williams when he fell, were Mr. Kent, Mr. Sirdefield, Mr. Robinson, and Mr. Whitworth, all of whom can prove that I was not near Zebetta when she fell, necessarily it is impossible I could be the cause of her falling. As I was next to Algiers (at the time of the accident) who was leading, I can only state Mr. Kent's and Mr. Sirdefield's account of the collision. Mr. Kent says—at the turn, Capt. Williams and he both ran for an opening, which Mr. Kent obtained inside, directly behind my horse, Zebetta being on his right, who ran into the heels of Mr. Sirdefield's horse, and fell outside of all. Mr. Sirdefield

thought that Zebetta clipped up, but be that as it may, all the four riders agree that I had nothing to do with Capt. Williams's fall. Capt Williams charged Mr. Sirdefield at the distance post with throwing him down, within the hearing of several gentlemen who can prove it.

Another most groundless and malignant report was in circulation, viz. that Patriot and Whitefoot both belonged to me, and that I ran against Zebetta, on purpose that Whitefoot should win. Mr. Dawson can prove whether I ever asked him the price of Patriot; and those persons who entertain such an erroneous opinion as my running against Zebetta on purpose, had better try the experiment among themselves, or endeavour to persuade the jockies to do so. Mr. Robinson was commissioned by me to back Zebetta and Patriot, which he did; and he can state I told him I thought Zebetta could not lose. I never backed Whitefoot for a shilling; and I had to pay Mr. Robinson for my losses on Zebetta.

It is also necessary to state why I rode Patriot and not Whitefoot. At Heaton Park I promised Mr. Dawson to ride for him at York, and I wrote to say that I did not think I should run Whitefoot at all. When I reached York, I agreed to ride Patriot for him, not intending to run Whitefoot.

On Monday night previous to the races, I told Mr. Kent and a party of friends I should not run, but they prevailed upon me to do so. I then said to Mr. Kent "You must ride him, as I have promised to ride for Dawson, but I would rather ride my own, as Dawson might think I would not try to beat Whitefoot." I named this to Dawson, and he said he had no such idea; but I told him the public might if Whitefoot won. He said if Mr. Kent would ride Patriot he would give me up; but Mr. Kent could not ride the weight, so I was obliged to ride Patriot. I mentioned this arrangement to Mr. William Scott, and my objections to riding Patriot; but he said as Mr. Kent could not ride the weight, he thought I was bound to ride for Mr. Dawson.

I am, your obedient servant,

GEORGE OSBALDESTON.

Ebberston Lodge, Oct. 27.

#### DECISION OF THE STEWARDS OF THE JOCKEY CLUB, ON THE RACE FOR THE LADIES' TEA SERVICE, AT YORK.—IN FAVOUR OF WHITEFOOT.

WE are of opinion that the Judge, upon finding that he could not see to judge the race from his Chair, ought to have made a representation to that effect to the Stewards, provided there was still time for him to do so; but as there appears to be no grounds for doubting that his final judgment was correct, and no suspicion attached of any intentional misconduct on his part, and as we think that if the Stewards had been appealed to, they must have sanctioned the course which was adopted by the Judge, we are of opinion that the decision ought to stand good.

(Signed)

LICHFIELD  
C. C. GREVILLE } Stewards.  
C. CHESTERFIELD }

Newmarket,  
Nov. 1st 1836.

## NOTICE.

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The unavoidable absence from Town of the Editor of THE FARMER'S MAGAZINE, upon urgent business, has prevented him from completing the further Practical Directions on the TITHE COMMUTATION ACT, which he proposed to give in the present Number. They are, however, nearly ready, and will positively appear in the Number for November.

The COMMON FIELDS INCLOSURE ACT would not be complete without the two preceding Acts upon the same subject, which are "made part of this Act." These Acts will be given in the next Number of THE FARMER'S MAGAZINE, and will be accompanied with Index and Notes explanatory of the present state of the Law on the subject of Inclosures.



THE  
**A C T**  
FOR FACILITATING THE  
**INCLOSURE OF ARABLE FIELDS**

IN  
**England and Wales;**

6 & 7 W. IV.

TO WHICH ARE ADDED,

THE 41 G. III., c. 109; THE 1 & 2 G. IV., c. 23; AND THE  
3 & 4 W. IV., c. 87;

**WITH INDEX, &c. &c.**

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LONDON:  
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1836.

## ADVERTISEMENT.

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As the recent Statute for **FACILITATING THE INCLOSURE OF ARABLE FIELDS, &c.** (the **6 & 7 W. IV.**, c. 115,) does not embrace the whole of the law upon this subject, it has been deemed best, for the purpose of ready reference, to add the three other Statutes, wherein the law will be found; and which, together, may be said to embrace all that is requisite to enable persons about to engage in inclosing any open fields, to inform themselves upon the necessary mode of procedure.

## ANALYSIS OF THE NEW INCLOSURE ACT.

This act, the 6 and 7 Will. 4, c. 115, is intitled "An act for facilitating the inclosure of open and arable fields in England and Wales." Its object is to authorize the inclosure of commons with the consent of a majority of the proprietors of rights of common, and without the trouble and expense of an act of parliament. The consent inclosures that it contemplates are of two kinds—inclosures with the assistance of commissioners, and inclosures without the assistance of commissioners. But the greater part of its provisions relate to the former kind of inclosures.

### 1. INCLOSURES CONDUCTED BY COMMISSIONERS.

*Preliminary Proceedings.*—A public meeting of the proprietors and parties interested is to be called, for the purpose of taking the proposed inclosure into consideration, by a notice signed by three proprietors, and affixed to the door of the parish church, and advertised in a newspaper of the county, fourteen days previous to the meeting.—s. 1.

*The parties whose consent is necessary, and the manner in which it is to be given.*—Two-thirds in number and value of the proprietors of rights of common, or other rights in the lands to be inclosed, must give their consent to the inclosure.—s. 1. The value is to be ascertained by the assessments of the poor-rates for the current year, if made according to the full annual value, but if not, or if the lands are extra-parochial, then according to the full annual value of the lands and rights to be affected by the inclosure.

The estates and interests in the rights over the common, which enable parties to consent to inclosures, are, an estate in fee-simple or fee-tail, or for life or lives, or by curtesy, or any other freehold, or for years determinable on a life or lives, or for a term of years whereof one hundred years are unexpired, or any analagous copyhold estate or interest.—s. 2. But the consent of a person having a less estate than a fee-simple or fee-tail is not good to make up the two-thirds, without the additional consent of the person entitled to the next vested estate in remainder or reversion, whether legal or equitable.—s. 2. And the consent of the incumbent, in respect of land held in right of a benefice is not good to make up the two-thirds, without the consent of the patron and ordinary. In the case of a crown living of above 20*l* a year, in the king's books, the consent of the first lord of the treasury, and in that of a

crown living under 20*l* a year, the consent of the lord chancellor, is requisite.—s. 2.

The consent of persons under a disability, as infants, idiots, lunatics, and femes covertes, may be given by their respective guardians, trustees, committees, and husbands—ss. 1 & 2.

The parties are to give their consent in writing under their hands; and persons may be consenting parties, who were not present at the meeting.—s. 1.

*Appointment of the Commissioners.*—After the necessary consents are obtained, the majority of the proprietors or their agents, are, at a meeting to be called for the purpose, to appoint one or more commissioners.—s. 3.

In case of death, resignation, &c., new commissioners are to be appointed by a majority of the proprietors, or their agents, at a public meeting called in like manner as the preliminary meeting. But, if no appointment of a new commissioner be made in this manner within two months, then a new commissioner may be appointed within another month by the remaining commissioner, by writing under his hand.—s. 3.

*Qualification oath, and payment of Commissioners.*—They must be persons who are not interested in the inclosure.—s. 3. The commissioners, umpire, and surveyors, are to take an oath in the form prescribed in the 6th section. The commissioners are to be paid three guineas a day, or by a gross sum by agreement with the proprietors.—s. 10.

*Powers and duties of Commissioners.*—They may appoint a clerk.—s. 4. Where there are two commissioners, they are to appoint an umpire, to decide in matters upon which there shall be a difference of opinion between them.—s. 5. They are to appoint the time and place of their attendance, and of meetings, and give notice thereof in the manner prescribed—ss. 7 & 8.; and, if necessary, adjourn meetings.—s. 7.

The commissioners are authorized to determine disputes between the parties concerning the rights or interests which they may respectively claim in the lands to be inclosed, or concerning any other matter relating to the inclosure; but not to determine the title to any estat

any right between the parties contrary to the possession, except in cases of encroachments made within twenty years previous.—s. 19. But they may determine disputes respecting encroachments within

twenty years—s. 20, and may ascertain and adjust the respective rights of the proprietors over the common in such manner as they shall think just and expedient, subject to the regulations of the act—s. 26. They are empowered to award costs against a party whose claim or objection is disallowed, and, upon refusal to pay them, to warrant the levying of such costs by distresses—s. 16.

*Proceedings in the Inclosure*—Four-fifths in numbers and value of the proprietors may agree upon the adoption of any previous plan, map, admeasurement, or valuation—s. 11, and upon the rules for the guidance of the commissioners or umpire—s. 12. But any proprietor may appeal against such agreements to the next quarter sessions, or, if they shall be held within one month after the agreement to the next following sessions, on giving notice to the commissioners of his intention to appeal, seven days previous to the sessions. And, if the decision be in favour of the appellant, any party may withdraw his consent, by giving notice in writing to the commissioners within twenty-one days after the decision: and, if the number of consenting parties be thereby reduced to less than the requisite two-thirds, the agreement for inclosure shall be at an end—s. 13.

Any of the parties may object to the account or claim of any other party, by a writing of which two parts are to be signed by the party objecting, and one of them to be served upon the other party or his agent—s. 14.

If a party be dissatisfied with any determination of the commissioners, the party dissatisfied may give notice thereof in writing to the commissioners and to the party in whose favour such determination was made, within thirty days after the determination shall have been notified to the parties interested, and, upon such notice in writing being given, bring an action upon a feigned issue against the person in whose favour the determination was made, at the then first or second assizes for the county: and the verdict in such action shall be final and conclusive upon the parties and the commissioners. But, if no such notice be given, or action brought or prosecuted, within the time limited, the determination of the commissioners shall be binding and conclusive—s. 17. Such actions are not to abate, or to be prevented from being brought by the death of the parties originally interested—ss. 17, 18.

No such difference, suit, or proceeding, nor any dispute respecting the title to any lands, is to impede or delay the commissioners in carrying on the inclosure—s. 17.

Land cultivated as an orchard or garden, or on which any building has been erected, or which has been inclosed by agreement with the commoners, is not to be allotted to any other person than the actual proprietor, without his consent in writing—s. 23.

Compensation is to be made to the owner or tenant of land to be allotted, by the allottee, in compliance with the commissioners' order in writing for growing crops, and the tillage and manuring of

lands, and the loss of any following or way-going crop; and, if such compensation be not duly paid, the commissioners may issue their warrant for levying the same by distress upon the goods of the person making default—s. 25.

The commissioners, immediately after their appointment are, by a writing under their hands affixed to the door of the church, or other conspicuous place, to publish orders respecting the course of husbandry to be pursued in the lands to be inclosed, and for preventing waste and destruction therein, and are empowered to enforce such orders by inflicting a penalty upon the offending party not exceeding 5l an acre—s. 24.

The commissioners are to allot the common lands unto and amongst the proprietors in proportion to their several rights, and the true value thereof, and in lieu and satisfaction of such rights—s. 26.

At the desire of several proprietors, the commissioners may set out their allotments together in one plot, distinguishing their several portions by metes and bounds, but not requiring them to make any subdivision fences—s. 27.

The commissioners are empowered to ascertain and set out the boundaries between the lands to be inclosed and adjoining lands—s. 28; and also to set out the rights of herbage in the private roads through the inclosure to such persons as they shall think best—s. 29.

Where one allottee has too great and another too small a proportion of boundary fences allotted to them, the commissioners shall direct a compensation to be paid by the latter to the former, in order to apportion the expense rateably—s. 32.

The commissioners are to avoid leases at rack rent of the lands to be allotted, so as satisfaction be made to the tenant by the landlords; and are empowered, with that view, to apportion the rent payable under such leases, either with respect to the time elapsed since the last rent-day, or in proportion to the part of the land as to which the lease is determined—s. 34.

The commissioners are empowered to improve the ditches, drains, watercourses, &c., or make new ones (the expenses to be raised and defrayed as part of the expenses of executing the act,) and to order by whom they shall be in future maintained, and to divert any streams or watercourses within the allotments—s. 38, and, if necessary to carry the drains through land not comprised in the inclosure, compensation being made for damage done to such land—s. 39.

The commissioners are to make and execute awards, with map annexed, which are to be deposited in the parish church—s. 51. The award is also to be enrolled, as required by the 41 Geo. 3., c. 109—s. 51, and the provisions of that act generally, and of the 1 and 2 Geo. 4. c. 23, where applicable, are adopted for effecting the purposes of the consent inclosure under the present act—s. 52.

*Allotments in respect of Church Property.*)—Rectors and vicars are empowered, with the consent of



the patron and ordinary, to erect buildings and make fences upon the allotments in right of their benefices (which buildings are to be insured in a London fire office,) and by deed or writing under their hand, attested by two witnesses, and with the consent of the bishop of the diocese, to charge their allotments, and the buildings erected thereon, with such sum of money, not exceeding two years' value of the allotments, as the commissioners shall think necessary for defraying the expenses of such building and fences, and of carrying this present provision into effect; and to raise such money by a mortgage for years of their allotments; and are required to pay off every year one-thirtieth part of the money so borrowed, and keep down the interest of the loan; and the persons lending the money are to have powers of distress and entry upon the premises for the recovery of the principal and interest—s. 30. Rectors and vicars are also empowered, with the consent of the bishop and patron, to lease their allotments for twenty-one years—s. 31.

*Exchanges, and communication of title.*—The act gives the commissioners ample powers for effecting exchanges of lands within the parish where the inclosure is made, for other lands in that or adjoining parish—s. 35., and defraying the expenses of such exchanges—s. 37, and contains clauses worded in the most comprehensive manner for communicating to the allotments and the lands taken in exchange the title—s. 33, and the tenure—s. 36, of the lands in respect of which such allotments and exchanges shall have been made.

*Sale before the award.*—The 45th section enables the allottee to mortgage, sell, demise, or dispose of his allotments before the execution of the award, and authorizes the commissioners to allot them to the purchaser; and declares, that, if not so allotted, the conveyance shall be valid and effectual *in law*, though made before the execution of the award. This clause, therefore, enables the allottee to transfer the legal estate in the allotment, by any kind of disposition, before the award.

*Expenses of the Inclosure.*—The general act of the 11 Geo. 3, enables tenants for life and other persons in possession, but not having the absolute interest to charge their allotments with the expenses of the inclosure to the amount of 5*l* per acre. The present act empowers the commissioners, at the request of such parties, to sell part of their allotments for the purpose of defraying the expenses, though part of the allotments are in one parish and part in another—s. 47; and to convey the part so sold to the purchaser in fee-simple—s. 46. But no sum shall be raised by sale, or partly by sale and partly by a charge under the 11 Geo. 3, exceeding the amount of 5*l* an acre in the allotments, the expenses whereof are thus sought to be defrayed—ss. 47, 46.

The expenses of the inclosure are to be paid by the proprietors in such proportions and at such times as the commissioners shall order, giving thirty days notice before the time of payment—s. 49. Persons whose respective allotments shall not exceed two

acres, and shall have been thrown together, are not to be liable to any part of the expenses. And four-fifths in number and value of the proprietors may agree at a general meeting that persons whose allotments shall not exceed five acres each, shall be exempt from any part of the expenses—s. 49.

*Commissioners' accounts.*—The accounts of the commissioners are to be annually laid before three justices of the peace for the county, to be examined and allowed by them; and the commissioners shall not retain out of monies received by them more than one third of the allowance to themselves or their clerk, till after six months from the delivery of the award—s. 50.

*Appeal.*—Parties aggrieved by any thing done under this act may appeal to the quarter sessions—s. 53.

*Lands that may be inclosed.*—Any open and common arable fields (including any untilled slips or balks therein), or any common meadow or pasture lands known by metes and bounds or occupied according to known and legal rights—s. 1, and lying in the parish where the inclosure is carried on, or in any adjoining parish within two miles—s. 3, may be inclosed. Encroachments within twenty years are to be included in the inclosure—s. 20, unless they have been taken or used for the site of a school-house, or for other charitable purpose—s. 21. But lands inclosed from the common for more than twenty years are to be deemed old inclosures—s. 22.

With a laudable care for the health and recreation of the inhabitants of densely peopled towns, it is provided that the act shall not authorize the inclosure of any commons within ten miles of London, or within one mile of any city or town of 5,000 inhabitants, or within one mile and a half of any city or town of 15,000 inhabitants, or within two miles of any city or town of 30,000 inhabitants, or within two miles and a half of any city or town of 70,000 inhabitants, or within three miles of any city or town of 100,000 inhabitants: the population, in each case, to be ascertained by the last parliamentary census, and the distance to be measured from the town-hall, or the cathedral, or the market-place of the town—s. 55.

## II. INCLOSURES WITHOUT THE INTERVENTION OF COMMISSIONERS.

Seven-eighths in number or value of the persons interested in the common, having such estates and interests as are required for the purpose of consenting to the other kind of inclosure, may, by themselves or their agents, or if under a disability, by their husbands, guardians, or committees, at a public meeting to be called for that purpose in the same manner as the preliminary meeting for the other inclosures, enter into an agreement for the inclosure of the common under the provisions of this act, but without the intervention of commissioners—s. 40.

A schedule of the land intended to be inclosed, containing a correct description thereof, and signed by the persons proposing and consenting to such inclosure, and, where any of the parties have a less estate than a fee-simple, then accompanied by a copy

of the settlement under which they are entitled, is to be deposited with the clerk of the parish and clerk of the peace of the county ; and a notice of the intended inclosure and of the schedule having been so deposited, is to be advertised in the county newspaper at three times in three successive months, and affixed on the church door, or in some conspicuous place for three successive Sundays after the schedule shall have been so deposited—s. 41.

Compensation is to be given for rights of common to all persons, whether consenting parties to the inclosure or not, who are possessed of such rights, and shall sign the schedule—s. 40. The compensation may be given in money or otherwise : and any person in possession of land in respect of which compensation is to be given, or having rights of common whether as tenants in fee-simple or fee-tail, or for life or lives, or any freehold estate, or for years determinable on lives, or having a personal right merely, may give their consent to the nature,

amount, and manner of the compensation—s. 42: the consent of parties under a disability or having a limited interest only, to be given in the same manner as with respect to the first kind of inclosures—s. 42.

Persons objecting to such inclosures may state their objections in writing, and deposit them with the clerk of the peace, within six months after the last notice of the deposit of the schedule—s. 43. And the objections shall be heard and determined by the justices at quarter sessions—s. 44.

Subject to such right of appeal, the inclosure, immediately after the expiration of the notices of the deposit of the schedule, is to be as valid and effectual in all respects as if it had been effected by means of commissioners—s. 40.

The 33rd section of the act communicates to lands assigned as a compensation under these inclosures, the title of the lands in respect of which such assignments shall be made.

E.

7

## ON DEFECTS IN TITLES UNDER INCLOSURE ACTS, AND THEIR PARTIAL REMEDY OR PREVENTION BY RECENT STATUTES.

The numerous and complicated difficulties that beset the deduction of titles to land allotted under commissions of inclosure, have originated in the first instance from certain material omissions in the general inclosure act of the 41 Geo. 3; but are attributable, in a still greater degree, to the partial and diversified manner in which the local acts of inclosure have attempted to remedy and supply those omissions. So that, besides the evils flowing from the original imperfections of the statute of Geo. 3, and arising inevitably, in such a proceeding as an inclosure, from the complexity of the interests and rights which it must affect, the titles derived under each inclosure take a new and particular colour from the manner in which the local act has been framed, and the comparative care or remissness with which it has happened to be drawn. And, instead of the judicial interpretations of a single statute, which might have gradually expanded and adapted its provisions to the exigencies of the case, or suggested from time to time the requisite legislative amendments, we are hampered with the inconsistent and defective clauses, and the doubtful construction of as many acts of parliament as there have been inclosures, which are stated to amount to as many as five thousand.

To illustrate this by an example:—The 7th section of the general act simply provides that the commissioners shall make the allotments “unto the person or persons who at the time of the inclosure shall have the actual seisin or possession of the lands in lieu or in right whereof such allotments shall be made,” without any provision respecting the title or quality of estate which the allotment shall assume. And it seems to have been contemplated, that, whatever were the nature of the interest which the allottee himself possessed, the allotment would enure according to the actual title of the land in respect of which it was made.

But it has been considered in practice, that, if the allotment be made to a person having a particular interest only, the legal estate in fee would vest in him: in trust, nevertheless, for the person or persons entitled to the reversion, according to their several and successive estates in the original land.

For the purpose of avoiding this inconvenience, most of the local acts contain a clause communicating to the allotments the title of the lands in respect of which they are allotted; and the effect of this clause, to whomsoever the allotment is made, is, to carry the legal estate according to the actual limitations of the original estate. Thus, where copyholds were granted for lives, an award making an allotment to one of the persons entitled for life, though not then in possession, gave the legal estate therein to the several persons entitled in succession to the copyhold tenement.—*Doe v. Hellard*, 4 M. & R. 736, 9 B. and C. 789.

This clause is worded in a very different manner, sometimes more and sometimes less comprehensively, in different acts. So that cases may frequently occur which the provisions of some acts are calculated to embrace, while those of others do not apply to them. In the case of *Doe d. Loues v. Davidson*, 2 M. and S. 175, the inclosure act contained a proviso, that the allotments should be held by the allottees to the same uses and for the same estates as the original lands. But it was nevertheless

held, that allotments to copyholders in respect of their copyhold tenements were of freehold and not copyhold tenure. And the same decision was made in the case of *Townley v. Gibson*, 2 T. R. 701, though there was a clause in the act providing that the inclosure should not “defeat the lord’s seignories incident to the manor.” In more modern acts, indeed, it is usually provided that allotments in respect of copyholds, shall be of copyhold tenure. But, where this provision is omitted, which not unfrequently happens, this strange anomaly and confusion results—that the allotments in respect of copyhold lands are freehold, yet subject to the seignorial rights of the lord of the manor, and to the uses and trusts of the old copyhold title.

Even where the clause in the local act, communicating the title of the original lands to the allotments in respect of them, is expressed in the most ample terms, it can of course only have the effect of clothing the allotments with the uses subsisting at the time, and not with any that shall arise under future conveyances. But it frequently happens, that, in conveyances made afterwards, and particularly in assignments of terms, the old description of the estate is retained, without any allusion to the new allotments. And therefore it may be doubtful whether they are comprised in such conveyances and assignments. And, though the ancient rights of common might well pass under the name of “appurtenances” to the land; yet it will be at least disputable whether the allotments are comprehended in that term, since land cannot be appurtenant to land; and, even in a will, a clear intention must be shown to extend the word “appurtenances” beyond its strict technical sense.”

But, if there are some difficulties which the clause in question fails of obviating, there are others that are even aggravated by the very potency of its operation. By the 6th section of the general act, it is required that all persons claiming rights of common in the lands to be inclosed, shall, previously to the inclosure, send in a written claim, particularizing such rights, and the lands in respect of which they claim, and “for what estates and interests they claim the same respectively, distinguishing the freehold from the copyhold or leasehold.” The statute goes on to say, that, in case of non-compliance with these requisitions, the party “shall be totally barred and excluded of and from all right and title in or upon such lands so to be divided, and of and from all benefit and advantage in or to any share or allotment thereof.” It would therefore seem, that, if the claimant omit thus to distinguish the titles and tenures of the lands in respect of which the claim is made, and an allotment be consequently made in respect of two or more estates held under different titles, there is ground for contending that the allotment is invalid. But, however this may be, the practice which is very frequent of making allotments to a proprietor without distinguishing the property in respect of which they are made, is productive of the utmost confusion and complication of titles. The estate in respect of which the allotments are made, may be composed of several portions, part freehold, part copyhold, and part leasehold, and derived under several titles: and, since it is not distinguishable which part is allotted in respect of which, the whole of the allotments will be subject to all those titles; and it will be impossible to show, to the satisfaction of a purchaser, of what tenure any particular part of the allotted land is, whether freehold, copyhold, or leasehold.

Similar difficulties arise with respect to exchanges of land under inclosure acts. Where the act does

not contain a clause communicating a reciprocity of title to the lands given and taken in exchange, it is at least questionable, whether, as between vendor and purchaser, both estates are not subject to both titles; and, since the general act contains no express provision on the subject, it seems to depend upon the manner in which the local act is worded, whether freeholds can be exchanged for copyholds; and, if they can, whether the freeholds become copyholds, and the copyholds are converted into freeholds. And it was not decided until very lately, that the commissioners may award land in exchange partly for other land and partly for money—*Doe d. Lord Suffield v. Preston*, 7 B. & C. 392, 1 M. and R. 713. But the exchange clause does not authorize the commissioners to make an allotment to a proprietor for his rights of common and an old inclosure to be given up and allotted in exchange: and therefore the title to an allotment made in such a manner would be defective—*Wingfield v. Tharp*, 10 B. and C. 785.

Under the provisions of the 35th section of the general act, the legal title to an allotment is not acquired until the execution and proclamation of the commissioners' award. And, even where the local act authorized the allottees to sell and convey their interests before the award, and the commissioners to allot to the purchasers, it was held that these provisions did not sufficiently countervail those of the general act, to vest the legal freehold in the allottee before the execution of the award—*Farrer v. Billing*, 2 B. & Ald. 171. The award, however, has such a relation back to the date of the act as to give effect to a conveyance of the land made between the passing of the act and the award—*Doe d. Dixon, v. Willis*, 3 M. and P. 24, 5 Bing. 441. But, if the act does not authorize a sale before the award, the allottee has not, until the award be made, a title which a purchaser can be compelled to take.

It is also extremely doubtful, in general, whether the allottee can devise his allotment by a will made between the passing of the act and the award; and it must always be a question, in the particular case, whether the local act is worded in a manner ample enough to give effect to such a disposition. It is evident that the clause communicating the original title to the allotments cannot help us here; as that applies only to wills subsisting and in force at the time of the passing of the act, and not to any future dispositions. Yet, independently of the aid which, in cases arising under modern inclosures, may be derivable from the clause now commonly inserted, enabling the allottee to charge or dispose of his allotment previously to the award, there seems to be ground for contending that the same relation of the award back to the time of the passing of the act, which effectuates a conveyance, would also give validity to a will made in the interval, if the will contain expressions applicable to the new acquisition. Or, if the doctrine of relation should not be thought applicable to the case, it might, we think, be maintained, that a devise of the equitable interest, which it is admitted the allottee has before the execution of the award (see *Cane v. Baldwin*, 1 Stark. 65), would not be revoked in equity by the mere accession of the legal estate under the award, as, from the nature of the case, it must be acquired in a shape exactly analogous to the previous equitable interest. But these are points which are still undecided, and therefore leave a title to allotted land, which depends upon a will thus circumstanced, liable in many cases to the doubts that they involve.

The general act requires that the award shall be enrolled within twelve months after the execution; and the strict observance of this formality is necessary to the validity of the award. It has, however, been decided, in the case of *Casamajor v. Storde*, 5 Sim. 57, 2 M. and K. 706, that the general inclosure act, so far as it enacts that the commissioners' oath, and the appointment of a new commissioner, shall be annexed to and enrolled with the award, is merely directory, and an omission in those particulars does not render the award void, or affect the title to the allotment.

There are also several other points, especially in reference to allotments in lieu of tithes, that, opening a door to mistake and controversy, have cast doubt and difficulty upon many titles. But our limits forbid us from entering at present into the consideration of them, and we must hasten to inquire what has been done by the legislature in the way of alleviating these evils.

By the 1 & 2 Geo. 4, c. 23, the owners of allotments are enabled to distrain for rent and to maintain an action of trespass or ejectment in respect of their allotments, before they have acquired the legal seisin by the execution of the award. And the 3 & 4 Will. 4, c. 87, supplies retrospectively the enrolment of awards which had not been enrolled, or which had not been enrolled within the time limited; and enables parties concerned to enrol such awards, notwithstanding that any commissioner shall be dead or incapable of acknowledging his award; and provides for the appointment of new commissioners in cases where it has been neglected or omitted to be made within the time limited by any previous act of inclosure.

The relief afforded by these acts is, it must be confessed, scanty enough. But the Legislature may have been justified in supplying omissions in mere matters of form, though not in repairing the consequences of a departure from its substantial requisitions and intentions; and to devise, if it were possible, a retrospective remedy for defects that had become interwoven with the very title and tenure of estates, would, perhaps, at the best, be only making "confusion worse confounded." Prevention for the future may in such a case be a more politic course, than cure for the past. And accordingly, we find, that, in the last session, an act, 6 & 7 Will. 4, c. 115, was passed, enabling inclosures of commons to be made by the mutual consent of the proprietors without the expense of an act of parliament. It authorizes such inclosures to be made with the consent of two thirds in number and value of the persons having rights of common, by commissioners appointed by the parties. It contains ample provisions for the management of such inclosures, and, as far as matters of title are concerned, clauses worded in the most comprehensive manner, for ascertaining the interests in respect of which the allotments shall be made; for authorizing exchanges of copyhold for freehold, and vice versa; for communicating to the lands allotted and exchanged the title and tenure of the original lands; and for disposing of the allotments before the execution of the award. It leaves the general inclosure acts of the 41 Geo. 3, and 1 & 2 Geo. 4, in full force as to inclosures under acts of parliament, and adopts and incorporates their provisions whenever they are available towards effecting these consent inclosures.—*The Jurist*.

# AN ACT

FOR

## FACILITATING THE INCLOSURE OF ARABLE FIELDS IN ENGLAND AND WALES.

6 & 7 WILL. IV.

[20th August, 1836.]

41. G. III. c. 109.—1 G. IV. c. 23.—*Open and Common Lands may be inclosed with the consent of Two Third parts in Number and Value of the Parties interested therein.*

I. Whereas there are in many parishes, townships, and places in *England* and *Wales* divers open and common arable, meadow, and pasture lands and fields, and the lands of the several proprietors of the same are frequently very much intermixed and dispersed, and it would tend to the improved cultivation and occupation of all the aforesaid lands within such parishes, townships, and places, and be otherwise advantageous to the proprietors thereof, and persons interested therein, if they were enabled by a general law to divide and inclose the same: And whereas an Act was passed in the forty-first year of the reign of his late Majesty King *George* the Third, intituled *An Act for consolidating in one Act certain provisions usually inserted in Acts of Inclosure, and for facilitating the mode of proving the several facts usually required on the passing of such Acts*: And whereas another Act was passed in the first year of his late Majesty King *George* the Fourth, intituled *An Act to amend the Law respecting the inclosing of Open Fields, Pastures, Moors, Commons, and Waste Lands in England*: Be it therefore enacted by the King's most excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, That from and after the passing of this Act it shall be lawful for two-third parts in number and value (such value to be ascertained as hereinafter mentioned) of the several persons who shall be seised or possessed of, or entitled in possession to or interested in possession in any rights of common or other rights in any open and common arable fields (including any untilled slips or balks therein), or any open and common meadow or pasture lands or fields, in any parish, township, or place in *England* or *Wales*, known by metes and bounds, or occupied according to known and legal rights (except as hereinafter provided), as tenant in fee simple or in fee tail, general or special, or for life or lives,

or by the courtesy of *England*, or for any other estate of or as of freehold, or for years determinable on any life or lives, or for any term of years whereof one hundred years shall be unexpired, or as a holder of lands or rights of copyhold, customary, tenant right, or other tenure, or an estate or interest equal in quantity to the estates hereinbefore mentioned or any of them, and for the guardian, trustee, feoffee for charitable or other uses, husband or committeee of such person who at the time of any agreement for or on the making of any inclosure authorized by this Act shall be an infant, idiot, lunatic, feme covert, or under any other disability, in such manner and with such consent as is hereinafter mentioned, to inclose such open and common arable, meadow, and pasture lands and fields, or any of them, and to extinguish the right of inter-commonage which shall exist as well over as in respect of such land; provided that no such inclosure shall take place without the consent in writing under the hands of two-third parts in number and value of the persons so seised, possessed, entitled, or interested as aforesaid, or of the guardians, trustees, feoffees, husbands, or committeees aforesaid of such of the said persons who may be under disability as aforesaid, such value to be ascertained by the assessments of the poor rates of the respective parishes or townships for the then current year, which assessments of the poor rates, in case they shall not be made according to the full annual amount or value of the tenements and property thereby assessed, shall be increased or diminished so as to represent the full or true annual value of the several lands, fields, and rights liable to be affected by the intended inclosure, and where the lands are extra-parochial, or no poor rates shall exist in respect of any such lands, then by the full or true annual value thereof: Provided also that no such inclosure shall take place, nor shall any agreement for that purpose be binding, until a public meeting of the proprietors and persons interested in the lands intended to be inclosed shall have been previously called for the purpose of taking the expediency of such inclosure into consideration by notice under the hands of three or more of such

proprietors or persons interested, such notice to be affixed on the principal outer door of the church or chapel of the parishes, townships, or places wherein the lands intended to be inclosed shall lie, or in case there be no such church or chapel, then on the door of the church or chapel of some adjoining parish, township, or place, and also advertised in some newspaper circulating in the county wherein such lands lie, at least fourteen days before the said intended meeting; provided that such inclosure may after such meeting be proceeded with by and with the consent in writing of two-third parts in number and value of the proprietors and persons interested in the lands intended to be inclosed, notwithstanding some of the parties who may approve of and consent to such inclosure may not be present at such meeting, and may signify their consent thereto after the same shall have been holden.

*The Consent of the Tenant in Remainder necessary in certain Cases.*

II. And be it further enacted, That whenever any inclosure shall be proposed to be made or consented to under the authority of this Act, or any agreement for compensation in pursuance of the provisions in that respect hereinafter contained shall be entered into, by any person or persons who being necessary to make up, and without whom there shall not be consenting parties sufficient to make up, the proportion of two-third parts in number and value hereinbefore required, or other the proportion hereinafter required in the case of an inclosure without the assistance of commissioners, and who shall have a less estate or interest in the land to be inclosed, or the said rights therein, than a fee simple or an estate in tail, or be an holder of a copyhold or customaryhold tenant right or other tenure in such lands or rights for any less estate than an estate or interest in fee or in tail, or shall be under any disability, such consent shall not be available for the purposes of this Act unless the person to whom the next immediate vested estate of freehold or of copyhold or customaryhold tenant right or any other tenure of inheritance, in remainder or reversion, shall have been limited, (provided such person shall be of the full age of twenty-one years, and being a female shall be unmarried,) shall consent thereto in writing; and such consent shall be sufficient for the purposes of this Act, notwithstanding the person giving the same may have an equitable estate only in the land intended to be inclosed, or may have previously charged or incumbered his reversionary estate therein: Provided always, that if the person to whom such next immediate vested estate in remainder or reversion may have been limited shall at the time such inclosure is proposed to be made happen to be an infant, feme covert, idiot, or lunatic, it shall be lawful for the guardian or husband or committee of such infant, feme covert, idiot, or lunatic to consent to such inclosure in his or her stead: Provided always, that in respect to any land held in right of any benefice no consent of the incumbent thereof shall alone be available for the purposes of this Act, where such consent shall be necessary to make up the proportion of two-third parts in number and value hereinbefore required, or other the proportion hereinafter required in the case of an inclosure without the assistance of commissioners, without the concurrence of the patron of such benefice, and of the archbishop or bishop to whose ordinary or peculiar jurisdiction the said benefice shall be subject; and if the patron of such benefice shall

happen to be a minor, idiot, lunatic, or feme covert, it shall be lawful for the guardian, committee, or husband of such patron to consent to such inclosure in the stead of such patron, and on his or her behalf: Provided always, that if the patronage of such benefice shall happen to be in the crown, and the benefice shall exceed the yearly value of twenty pounds in the King's books, no consent of the incumbent thereof shall be available for the purposes of this Act, where such consent shall be necessary to make up either of the proportions aforesaid, without the concurrence of the Lord High Treasurer or the first Lord Commissioner of the Treasury for the time being, who are respectively hereby authorized so to concur; but if such benefice shall not exceed the yearly value of twenty pounds in the King's books, then no consent of the incumbent thereof shall be available for the purposes of this Act, where such consent shall be necessary to make up either of the proportions aforesaid, without the concurrence of the Lord High Chancellor, Lord Keeper, or Lords Commissioners of the Great Seal for the time being, who is and are hereby authorized to give such consent on behalf of the crown.

*Commissioners to be nominated by the Parties consenting to the Inclosure.*

III. And be it further enacted, That whenever the persons whose consents are hereby rendered necessary to any such inclosure shall have consented thereto in manner in that behalf herein authorized and required, it shall be lawful for the major part in number and value of the proprietors of and persons interested in the lands intended to be divided and inclosed, or their known agents, who may be present at a meeting to be called for that purpose, to nominate and appoint in writing under their hands one or more person or persons (not interested in the premises) to be a commissioner or commissioners for dividing, allotting and inclosing, and he or they is and are hereby empowered to divide, allot, and inclose, all or any of the open and common arable meadow or pasture lands or fields in any such parish, township, or place, or in any parishes, townships, or places adjoining or lying within two miles of the aforesaid parish, township, or place, which may have been agreed to be divided, allotted, and inclosed as aforesaid; and when and as often as any such commissioner or any commissioner to be from time to time appointed in his place shall die, neglect or refuse or become incapable to act, it shall be lawful for the major part in number and value of the proprietors of such open common arable fields, or other lands or fields as aforesaid so agreed to be divided, allotted, and inclosed, or of their agents assembled at a public meeting to be held in manner hereinbefore mentioned in respect to the meeting for taking such inclosure into consideration, to nominate and appoint any other person not interested in the premises to be a commissioner in the stead or place of the commissioner so dying, neglecting, refusing or becoming incapable to act as aforesaid; and in case the said proprietors or persons interested as aforesaid shall make default in appointing any new commissioner within two calendar months after any such death, neglect, refusal, or disability shall happen, and shall be known and signified to them or any two of them respectively as aforesaid, then the surviving or remaining commissioner (if any) shall and he is hereby required from time to time, by writing under his hand, within one calendar month next after the expiration of the said period

allowed to the proprietors or persons interested for naming such new commissioner to be appointed as aforesaid, to appoint one other commissioner, not interested in the said inclosure, in the place of such commissioners so dying, neglecting, refusing, or becoming disabled to act as aforesaid; and every such new commissioner so to be appointed shall have the like powers and authorities for carrying this Act into execution in all respects whatsoever as the commissioner in whose place he shall have been so appointed and chosen as aforesaid was invested with under and by virtue of this and the said hereinbefore recited Act.

*Commissioners to appoint a Clerk.*

IV. And be it further enacted, That the said commissioner or commissioners shall and they are hereby authorized and empowered to appoint a clerk to assist him or them in the execution of the said recited Act and this Act, and shall and may remove such clerk and appoint another in his room as to him or them shall seem meet; and in case of the death, incapacity, neglect, or declining to act of any such clerk, then and in any such case the said commissioner or commissioners shall and may appoint any other person to be clerk.

*Umpire to be appointed.—In case of difference of Opinion between the Commissioners, the Matter to be determined by the Umpire.*

V. And be it further enacted, That in all cases where two commissioners shall have been appointed for any such inclosure they shall, before they proceed upon the business of such inclosure, by writing under their hands appoint a fit and proper person (not interested in the said division and inclosure) to act as umpire between them, and from time to time afterwards renew such appointment in the event of the death, refusal, neglect, or incapacity to act of the person so appointed; and if any difference of opinion shall arise between them touching or concerning any matter or thing to be done by them by virtue or in the execution of the said recited Act or of this Act, the matter upon which such difference shall arise shall be settled and determined by such person so to be appointed umpire, whose determination therein shall be deemed and taken to be the determination of the said commissioners, and shall be reduced into writing, and shall be binding and conclusive upon all parties whomsoever (so far as the acts and determinations of the commissioners are by the said recited Act or this Act declared to be final and conclusive); and for the purposes aforesaid such umpire shall have and he is hereby invested with the same powers and authorities as by the said recited Act and this Act are given or vested in the said commissioners.

*Commissioners and Umpire to take an Oath.*

VI. Provided always, and be it further enacted, That no person shall be capable of acting as a commissioner or an umpire or a surveyor in the execution of this Act or the said recited Act until he shall have taken and subscribed an oath or made an affirmation in the form or to the effect following before one of his Majesty's Justices of the Peace for the county, riding, division, or place in which the lands intended to be inclosed, or some part thereof, are situate; which oath or affirmation the said Justice is hereby empowered to administer; (that is to say,)

*Form of Oath.*

“ I A. B. do swear, [or, being one of the people called Quakers, do solemnly affirm,] That I will

faithfully and impartially, and honestly, according to the best of my skill and judgment, execute and perform the several powers and authorities vested and reposed in me as a commissioner [or an umpire] or surveyor [as the case may be] by virtue of an Act passed in the year of the reign of King William the Fourth, entitled *An Act, &c. [here set forth the title of this Act]*, according to equity and good conscience, without favour or affection, prejudice or partiality, to any person or persons whomsoever.”

“ So help me GOD.”

[Or, being a Quaker, omit the words, “ So help me God.”]

*Commissioners to give Notice of Meetings, &c.—Adjournment of Meeting in case of failure of Attendance of Commissioners.—Place of Meeting.*

VII. And be it further enacted, That the said commissioner or commissioners or umpire shall and he or they is or are hereby required to cause notice in writing to be affixed to the respective church or chapel doors of the parish, township, or place wherein the lands intended to be inclosed are situate, or if there be no church or chapel, then in some conspicuous public place there, and also a like notice to be published in some newspaper circulating in the county wherein such lands lie, of the time and place of his or their attendance or meeting, and of all other subsequent attendances or meetings for executing the powers hereby or in and by the said recited Act vested in him or them, ten days before any such meeting (meetings by adjournment only excepted); and if there be two commissioners, and not more than one of them shall attend at the time and place appointed for any such meeting, it shall be lawful for the commissioner who shall attend such meeting, or the clerk of the said commissioners, or if notice shall have been given of such meeting by any umpire, and both the commissioners shall not attend the same, it shall be lawful for such umpire, to adjourn such meeting to any future day not exceeding fourteen days from the day of adjournment; and such clerk shall cause notice of such adjournment to be given to the said commissioners: Provided always, that all the meetings of the said commissioners, or umpire and commissioners, shall be holden in one of the parishes or townships wherein the lands to be inclosed are situate, or within seven miles of the boundaries of one of them.

*Mode in which other Notices are to be given.*

VIII. Provided always, and be it further enacted, That all other notices necessary or requisite to be given by the said commissioner or commissioners or umpire shall be so given by affixing the same on the respective church or chapel doors of the several parishes, townships, or places wherein the lands to be inclosed are situate, or if there be no church or chapel, in some conspicuous public place in such parishes, townships, or places, and by advertisement in a newspaper circulating in the county wherein such lands are situate

*Allowance to Commissioners, Umpire, and Surveyors.*

IX. And be it further enacted, That out of the money that shall arise for defraying the expences of executing this Act there shall be paid to each of the commissioners (if more than one) and to the umpire who shall act in the execution thereof, as a recompence for his pains and trouble, the sum of three guineas for each and every day they shall respectively be employed in travelling to, return-

ing from, and attending in the execution of this Act, and no more; and at all meetings to be held in pursuance of this Act the said commissioners and umpire shall, out of such allowance, defray their own expences; and there shall be paid to the surveyor or surveyors to be appointed for the purposes of this Act such allowances in respect of his or their services as the said commissioner or commissioners shall adjudge to be a full recompence and satisfaction for all his or their expences and charges whatsoever in attending the said commissioners, and in surveying and admeasuring the lands and grounds to be inclosed, and in planning and taking out the several allotments intended to be made, and in making such maps and plans as may be required respectively by virtue of this Act.

*Major part of Proprietors may agree for Payment of a Gross Sum to Commissioners, &c.*

X. Provided always, and be it enacted, That it shall be lawful for the major part in number and value of the proprietors and persons interested as aforesaid to make any agreement with any commissioner or commissioners or surveyor or surveyors to be appointed under this Act for the payment to them respectively of one sum for the whole duty or any part thereof to be performed by them or either of them.

*Four-fifths of Proprietors, &c. may agree to adopt any previous Plan, &c.*

XI. Provided further, and be it enacted, That it shall be lawful for four-fifths in number and value of such proprietors and persons interested as aforesaid to agree upon the adoption for the purposes of this Act of any plan, map, admeasurement, or valuation previously made, and such agreement shall be binding upon any commissioner or commissioners or umpire who may be appointed in pursuance of the provisions of this Act.

*Four-fifths in Number may agree upon Rules for guidance of Commissioners or Umpire.*

XII. Provided also, and be it enacted, That it shall be lawful for four-fifths in number and value of such proprietors and persons interested as aforesaid to agree upon the rules, conditions, and principles according to which any such commissioner or commissioners or umpire shall act in allotting the lands to be inclosed to the several persons interested therein, and such agreement shall be binding upon such commissioner or commissioners or umpire as aforesaid.

*Such several Agreements may be appealed against to the Quarter Sessions.—Notice of Appeal.—Proviso.*

XIII. Provided nevertheless, and be it further enacted, That it shall be lawful for any proprietor or person interested as aforesaid, who may deem himself aggrieved by any such agreement as hereinbefore mentioned for the payment of a commissioner or commissioners, surveyor, or surveyors, or for the adoption of any plan, map, admeasurement, or valuation, or for establishing any rules, conditions, and principles for the guidance of the commissioner or commissioners or umpire in making allotments, to appeal against the same to the first General Quarter Sessions of the Peace to be holden in and for the county, riding, or division wherein the lands, or the greater part thereof, in respect of which the matter of complaint may arise, shall be situate, or some adjournment thereof, or if such General Quarter Sessions shall be holden within one month from the making of such agreement, then to the General Quarter Sessions next following such first General Quarter Ses-

sions, or some adjournment thereof; and notice of such appeal shall in each case be given in writing to the commissioner or commissioners seven days at the least before the day on which such sessions respectively shall be holden: Provided always, That in the event of the decision upon any such appeal being in favour of the appellant it shall be lawful for any party who shall have consented to such agreement for inclosure as aforesaid to withdraw his consent from such agreement, by giving notice in writing to that effect to the commissioner or commissioners at any time within twenty-one days after the day on which the decision upon such appeal as aforesaid shall have been given; and if by reason of such withdrawal of consent the proportion of two-thirds in number and value of consenting parties shall not remain, the said agreement for inclosure shall thenceforth cease and determine.

*A Copy of the Objections to be left with the Party objected to, or given to his Agent.*

XIV. And be it further enacted, That if any of the parties interested in the premises shall have any objection or objections to any of the accounts or claims which shall be delivered to the said commissioner or commissioners by virtue of the said recited Act, or of this Act, such objection or objections shall be reduced into writing, and two parts thereof shall be signed by the party or parties making the same, or by some person or persons on his, her, or their behalf, and one part thereof shall be delivered to the party or parties whose claim or account shall be objected to, or to his, her, or their agent, or left at his, her, or their last and most usual place or places of abode, at such time or times as the said commissioner or commissioners shall appoint for that purpose.

*For settling Disputes between Parties interested.*

XV. And be it further enacted, That if any dispute or difference shall arise between any of the parties interested, or claiming to be interested in the said intended division, allotment, and inclosure, touching or concerning the respective rights or interests which they or any of them shall claim to have in, to, or out of the lands and fields hereby authorised to be divided, allotted, and inclosed, or touching or concerning any other matter or thing relating to the said division, allotment and inclosure, it shall be lawful for the said commissioner or commissioners, and they are hereby authorized and required, to examine into, hear, and determine the same respectively; provided that nothing in this Act contained shall authorize the said commissioner or commissioners to determine the title to any manors, messuages, cottages, lands, tenements, or hereditaments whatsoever.

*Commissioners may award Costs.*

XVI. And be it further enacted, That in case the said commissioner or commissioners shall, upon the hearing and determination of any claim or claims, or objections, to be delivered to them in pursuance of the said recited Act or this Act, see cause to award any costs, it shall be lawful for the said commissioners and they are respectively hereby empowered, upon application being made to them for that purpose, to settle, assess, and award such costs and charges as they shall think reasonable to be paid, either for the public account for or towards the expences occasioned in or relating to the investigation, settling, and determining of such claim or claims, if finally disallowed, or to the party or parties in whose favour any



determination of the said commissioner or commissioners shall be made, by the person or persons whose claim or objection shall be thereby disallowed or over-ruled, or against whom the said commissioner or commissioners shall have determined as aforesaid; and in case the person or persons who shall be liable to pay such costs shall neglect or refuse to pay the same, upon demand, it shall be lawful for the said commissioner or commissioners, and he and they are hereby authorized and required, by warrant under their hands and seals, directed to any person or persons whomsoever, to cause such costs to be levied by distress and sale of the goods and chattels of the person or persons so neglecting or refusing to pay the same, rendering the overplus (if any), upon demand, to such person or persons whose goods and chattels shall have been so distrained and sold, after deducting the costs and charges attending such distress and sale.

*Appeal allowed when Parties are dissatisfied with Decision of the Commissioners.*

XVII. Provided always, and be it further enacted, That in case any person or persons interested or claiming to be interested in the said intended division and inclosure shall be dissatisfied with any determination of the said commissioner or commissioners or umpire touching or concerning any claim or objection which shall be delivered to the said commissioners in pursuance of the said recited Act or this Act, or touching or concerning any property, right, or interest intended to be affected by such determination, and shall cause notice in writing of such dissatisfaction to be delivered to or left at the usual places of abode of the commissioner or commissioners or umpire making such determination, and of the party or parties in whose favour such determination shall have been made, if there be any party or parties specially interested in the same, or his, her, or their agent, within thirty days next after such determination shall have been notified in writing to the several parties or persons specially interested, if any such there be, it shall be lawful for such person or persons so dissatisfied, and giving such notice as aforesaid, to bring or cause to be brought an action or actions upon a feigned issue against the person or persons in whose favour such determination shall have been made, and to proceed to a trial at law of the matter so determined by the said commissioners or umpire at the then first or second Assizes to be holden for the county wherein the lands relating to which such dispute shall arise are situate; and the defendant or defendants in such action or actions shall, and he, she, and they is and are hereby required to name an attorney or attorneys, who shall appear thereto, and file common bail, and accept one or more issue or issues, whereby such claim or claims, rights in question, and the property, right, and interest thereby insisted upon, may be tried and determined; such issue or issues to be settled by the proper officer of the court in which the said action shall be commenced, in case the said parties shall differ about the same; and the verdict or verdicts which shall be given upon the trial of such action shall be binding, final, and conclusive, unless the court wherein such action shall be brought shall set aside such verdict or verdicts, and order a new trial to be had thereon, which it shall be lawful for the said court to do in case the said court shall think proper; and after such verdict or verdicts shall be obtained, and not set aside, the said commissioners shall and they are hereby required to act in conformity thereto,

and to allow or disallow the claim, property, right, or interest thereby determined according to the event of such trial or trials; and the costs and charges payable by the said commissioner or commissioners in or relating to such action or actions shall be paid and discharged out of the monies to be raised by him or them for the purposes of this Act: Provided always, that if no such notice shall be given, and such action or actions at law shall not be commenced as aforesaid, or if any such action shall be commenced, and the plaintiff or plaintiffs therein shall not proceed to trial within the time herein-before limited for that purpose, then the determination of the said commissioner or commissioners or umpire shall be final, binding, and conclusive to all intents and purposes whatsoever: Provided always, that if any of the parties in any such action to be commenced as aforesaid shall die before the determination thereof such action shall not abate by reason thereof, but shall be proceeded in as if no such event had happened; and that no difference, suit, or proceeding as aforesaid, nor any difference or dispute touching the title to any lands, tenements, or hereditaments, shall impede or delay the said commissioner or commissioners in the execution of the powers of this Act, but the division, allotment, and inclosure hereby authorized to be made shall be proceeded in notwithstanding any such difference or proceeding.

*Death of Parties not to abate Actions.*

XVIII. Provided always, and be it further enacted, That if any person or persons in whose favour such determination as aforesaid shall have been made, and against whom any such action or actions might have been brought if living, shall die before any such action or actions shall have been brought, and before the expiration of the time herein-before limited for bringing such action or actions, it shall be lawful for the person or persons who might have brought such action or actions against the person or persons so dying to bring the same within the time so limited as aforesaid against such person or persons as aforesaid as if actually living, and to serve the clerk of the said commissioner or commissioners with process for commencing such action or actions in the same manner as the party or parties so dying might have been served therewith if living; and it shall thereupon be incumbent upon the heir or heirs or other person or persons who shall claim benefit of such determination as aforesaid to appear and defend such action or actions in the name or names of the person or persons so dead; and proceedings shall be had therein in the same manner as if such person had been actually living, and the rights of all parties shall be equally bound and concluded by the event of such action or actions.

*Commissioners not to determine Rights between Parties except in Cases of Encroachments within 20 Years.*

XIX. Provided also, and be it further enacted, That nothing in this Act contained shall extend to enable the said commissioner or commissioners to determine any right between any parties contrary to the possession of any such parties, except in Cases of Encroachments made within the period of twenty years next preceding the passing of this Act; but in case the said commissioner or commissioners shall be of opinion against the right of the person or persons so in possession they shall forbear to make any determination thereupon until the possession shall have been given up by or

taken from such person or persons by ejection or other due course of law.

*Encroachments made within 20 Years to be deemed Part of the Land to be allotted.*

XX. And be it further enacted, that all Encroachments or Intakes which at any time within twenty years next preceding the date of the agreement for any such inclosure have been made upon the said lands and fields hereby authorized to be divided and inclosed shall be deemed and considered part and parcel of the lands and fields to be allotted and inclosed by virtue of this Act as if the same were actually lying open and uninclosed, and shall be divided and allotted accordingly; and in case any dispute or difference shall arise touching any such Encroachments or Intakes, or as to the extent thereof, such dispute or difference shall be determined by the said commissioner or commissioners.

*Lands used for charitable Purposes not to be deemed an Encroachment.*

XXI. Provided also, and be it further enacted, That in case any such lands shall have been taken or used at any time before the passing of this Act for the erection of a School-house or School-houses, or the appurtenances thereto, or for other charitable purposes, such lands so taken, or the erections made thereon, shall not be taken or deemed to be of the nature of an Encroachment within the meaning of this Act.

*Lands inclosed more than 20 Years deemed to be ancient Inclosures.*

XXII. Provided always nevertheless, and be it further enacted, That all lands which shall have been inclosed from the open fields, or any of them for more than twenty years next preceding the date of the agreement for such Inclosure, shall for the purposes of this Act be deemed and taken to be ancient inclosures.

*Cultivated Ground to be allotted to Proprietors only.*

XXIII. Provided always, and be it enacted, That it shall not be lawful for the said commissioner or commissioners or umpire to allot to any other person than the proprietor thereof any land which may be cultivated as orchard or garden, or on which any building may have been erected, or which may have been inclosed by virtue of any voluntary agreement between the proprietor thereof and the persons having right of common over the same, without the consent in writing of such actual proprietor.

*Compensation to be made for Standing Crops.*

XXIV. And be it further enacted, That the said commissioner or commissioners shall, by some writing or writings under their hands, ascertain, order, and appoint what recompence and satisfaction in money shall be made to the owner or owners of any crops growing at the time of the said intended division and allotment, for the said crops, by the person or persons to whom the lands on which such crops are growing shall be allotted, and also what recompence and satisfaction in money shall be paid, and by whom, to any tenant or tenants, occupier or occupiers of lands to be inclosed as aforesaid, as well for the ploughing, tilling, and manuring of any lands or fields which shall be allotted to some other person or persons, and for the profit or advantage which any such person or persons to whom the said lands and fields shall be allotted will obtain thereby, as for any loss or disadvantage which any such tenant or

tenants, occupier or occupiers, shall or may sustain by the loss of any following or way-going crop in any of the open and common lands or fields by this Act authorized to be divided, allotted, and inclosed, or by means of the said division, allotment, and inclosure; and if in any or either of the said cases last mentioned such recompence and satisfaction shall not be made at the time and in the manner to be appointed by the said commissioner or commissioners, then the said commissioner or commissioners shall and may, by any warrant or warrants under his or their hands and seals, directed to any person or persons whomsoever, (which warrant or warrants he or they are hereby authorized and empowered to grant accordingly,) cause the same to be levied by distress and sale of the goods and chattels of the person or persons required to make such recompence and satisfaction as aforesaid, together with the costs and charges of such distress and sale, rendering the overplus, if any, to the owner or owners of such goods and chattels.

*Commissioners to direct the Course of Husbandry to be followed.*

XXV. And be it further enacted, That the said commissioner or commissioners shall, as soon after his or their appointment as conveniently may be, by some writing or writings under his or their hands to be affixed on the principal outer doors of the several and respective churches or chapels of the parishes or townships in which the lands to be inclosed are situate, or if there be no church or chapel, then in some conspicuous place in the parish, township, or place where such lands shall be, order and direct the course of husbandry that shall be used in, over, and upon the open arable, meadow, or pasture lands or fields to be divided, allotted, and inclosed by virtue of this Act, until the time when he or they shall have made and completed the intended division and allotment thereof, as well with respect to breaking up and laying down, as the ploughing, sowing, fallowing, and tilling the same lands and fields; and by the same or any other writing or writings under his or their hands, to be affixed as aforesaid, shall and may make such orders and regulations touching the conduct of the owners and occupiers of the same lands and fields, for the preventing the committing of waste or destruction by any person or persons whomsoever upon any of the lands and fields to be divided and allotted by virtue of this Act, in the meantime and until the allotments and divisions thereof shall be effected, as to the said commissioner or commissioners shall seem expedient; all which orders and regulations of the said commissioners shall be binding and conclusive upon all parties interested therein, their farmers and tenants; and that the said commissioners shall set and impose such pecuniary penalties and forfeitures upon every person not conforming to such orders and regulations as they shall think necessary, not exceeding five pounds *per acre*; all which penalties and forfeitures shall be paid to such person or persons and for such uses and purposes as the said commissioner or commissioners shall by any such writing or writings as aforesaid, or any other writing or writings, direct or appoint; and the said commissioner or commissioners are hereby authorized and required to raise and levy the same, for the use of the person or persons he or they may consider entitled thereto, by such ways and means as the costs, charges, and expenses of carrying this Act and the said recited Act of the forty-first year of the reign of His late

Majesty King *George* the Third into execution may be raised and levied.

*Commissioners to allot the Lands to be inclosed.*

XXVI. And be it further enacted, That the said commissioner or commissioners shall apportion, divide, set out, and allot the said open or common arable, meadow, and pasture lands or fields authorized by this Act to be divided, allotted, and inclosed unto and amongst the several proprietors thereof and persons interested therein, in proportion to their respective shares, rights of common, and all other rights, property, and interests, and in proportion to the true and real value of their several shares, rights of common and all other rights, property and interests, and the same, when so apportioned, divided, set out, and allotted, shall be taken to be in lien and full satisfaction of and for such their said several shares, rights of common, and all other rights, property, and interests, to be ascertained and adjusted by such ways and means and in such manner as to the said commissioners shall seem just and expedient, but subject to the rules, orders, and regulations herein contained or referred to and authorized to be established concerning the same.

*At the Desire of the Parties several Allotments may be set out together, distinguished by Metes and Bounds, but not fenced from each other.*

XXVII. And be it further enacted, That in case any number of the proprietors or persons interested in the lands and fields agreed to be inclosed under the authority of this Act shall deem it expedient and desire to have their allotments thrown together and distinguished by metes and bounds, but not fenced from each other, and of such their desire shall give notice in writing to the said commissioner or commissioners, such commissioner or commissioners shall and he and they is and are hereby required to set out the several allotments of the said persons so giving notice as aforesaid in one plot or parcel of land, distinguishing the portion of such plot or parcel of land, allotted to each of such proprietors by metes and bounds, but not requiring them to make any subdivision fences or other fences, save such ring or outer fences as may be necessary and may be ordered by the said commissioner or commissioners to be made for dividing the said plot or parcel of land from the residue of the lands so to be inclosed.

*For ascertaining Boundaries.*

XXVIII. And be it further enacted, That for the purposes of shortening or rendering straight or otherwise improving any boundary fence or fences between the lands and fields hereby authorized to be divided, allotted, and inclosed, and the old or other lands thereunto adjoining, or between such allotments and inclosed or other lands, or any of them, and any adjoining lands and grounds, it shall be lawful for the said commissioner or commissioners (with the consent of the lord of any manor in which the lands are respectively situate, and of the owners of any such adjoining lands, testified by writing under their respective hands, or under the common seal of any of them being a corporation aggregate,) to set out, ascertain, and determine the boundaries between the lands hereby authorized to be divided, allotted, and inclosed, and any adjoining lands or grounds lying in the same or in any adjoining manor, parish, or place, as the said commissioner or commissioners shall judge proper for the purposes aforesaid; and after such boundaries shall be so set out, ascertained, and deter-

mined as aforesaid, the same shall be made, fenced, ditched, or mounded by such person, in such manner, and at such times as the said commissioner or commissioners shall direct, and shall for ever thereafter be deemed the boundaries between the said allotted and inclosed lands respectively, or (as the case may be) between the said allotments or inclosed or other lands and such adjoining manor, parish, or place; any law, usage, or custom to the contrary notwithstanding.

*Right of Herbage in Private Roads to be set out.*

XXIX. And be it further enacted, That the said commissioner or commissioners shall in and by his or their award order and appoint the grass and herbage growing and renewing upon all and every the private roads to be set out by him or them within the said lands and fields hereby authorized to be divided, allotted, and inclosed, to be and for ever hereafter remain to and for the use and benefit of such persons as the said commissioner or commissioners shall in his or their judgment think best entitled to the same.

*Empowering Rectors to erect Buildings on Lands allotted in right of Glebe, and charge Expences thereon.*

XXX. And whereas the allotments made to any rector or vicar who may be entitled to any glebe lands in such open and common arable, meadow, or pasture lands or fields, or some of such allotments, may probably require some additional buildings, by reason whereof, and in order to render the same of greater value to the said rectors and vicars respectively, and their respective successors, it may be necessary that some buildings should be erected thereon, and some necessary division as well as interior or subdivision fences may be necessary to be made, planted, and raised in and upon the said allotments or some of them: And whereas the erecting of such further buildings, and the making, planting, and raising such fences, will be attended with considerable expence, and as the same will probably be more beneficial to the successors of such rectors and vicars respectively than to the rector and vicar in whose incumbency such allotment and inclosure may take place; be it therefore further enacted, That it shall and may be lawful to and for the said rectors and vicars respectively, and their respective successors, by and with the consent in writing of the respective patrons of the said rectories and vicarages, and of the ordinary of the diocese for the time being, to erect or cause to be erected for agricultural purposes such further buildings upon the allotment or allotments (which buildings the said rectors and vicars respectively, and their respective successors, are hereby required to cause to be insured equal to the value thereof annually in some of the Offices in London established for Insurance against Fire,) so as aforesaid to be set out unto the said rectors and vicars and their respective successors as aforesaid, and also to make, plant, and raise such outer division as well as interior or subdivision fences in and upon the said allotment or allotments as the said commissioner or commissioners shall judge necessary and proper for the occupation of the lands so to be allotted to the said rectors and vicars respectively, and their respective successors, and by any deed or deeds, writing or writings, under the respective hand and seal of such rectors or vicars respectively, and their respective successors, and attested by two or more credible witnesses, by and with the consent in writing of the bishop of the diocese for the time being, to charge such allot-

ment or allotments so as aforesaid to be set out for the said rectors and vicars respectively, and their respective successors as aforesaid, and the buildings so to be erected thereon, with such sum or sums of money, not exceeding in the whole two years annual value of the respective allotments so to be set out to the said rectors and vicars respectively, as the said commissioners shall think necessary for the purposes of and in order to be applied to paying and defraying the charges and expences of erecting the said further buildings, and of making, planting, or raising such division or subdivision fences, or for either of the said purposes, and in applying for and obtaining the consent of the said bishop, and in exercise of the powers given to and vested in the said rectors and vicars respectively by virtue of this Act and the said recited Act; which sum or sums of money shall be paid to such person or persons as the said commissioners shall nominate and appoint, in order to be applied or disposed of accordingly; and for securing the repayment of such sum or sums of money, with interest for the same, to grant, mortgage, lease, or demise the allotments so as aforesaid to be set out unto and for the said rectors and vicars respectively, and their respective successors, as aforesaid, and the buildings so to be erected thereon, unto such person or persons who shall advance and lend the same, his, her, and their executors, administrators, or assigns, for any term or number of years, so that every such grant, mortgage, lease, or demise be made with a proviso to cease and be void, or with an express trust to be surrendered, when the sum or sums of money thereby to be secured, with the interest thereof, shall be respectively fully paid and satisfied; and such mortgagee or mortgagees advancing and lending the money so as to be borrowed shall not be obliged to see to the application or be in anywise answerable for the misapplication of such monies or any part thereof; and the said rectors and vicars respectively, and their respective successors for the time being, shall be and are hereby required and made liable, at the end of every year after the date of such mortgage, to pay to the person or persons to whom such grant, mortgage, lease, or demise shall be made, his, her, or their executors, administrators, or assigns, one-thirtieth part of the respective principal monies so to be borrowed, until the whole thereof shall by such annual payments be paid off and discharged, and also to pay and keep down the interest of the said respective monies so to be borrowed, so that the future rectors and vicars of the said respective parishes or townships becoming possessed of such respective lands and fields shall not be subject or liable (and they are hereby respectively discharged from being subject or liable) to pay any further or larger share of such monies than his or their proportion thereof according to such last-mentioned condition, or any interest for the same save only from the day of the death, resignation, or cession of the preceding incumbent of the said rectories or vicarages respectively; and that it shall and may be lawful to and for the person or persons who shall advance and lend such monies, his, her, or their heirs, executors, administrators, and assigns, for the more easily recovering the said one-thirtieth part of the said principal and the whole of the interest which is enacted annually to be paid, to have, use, exercise, and take such and the same powers and remedies, by entry and distress upon the premises so to be charged, mortgaged, and demised, and sale of such distress, as by the laws

now in force are provided for and given to landlords or as they can use and take for the recovery of rack rents in arrear.

*Rectors, with Consent of Bishop, may demise the Allotments.*

XXXI. And be it further enacted, That it shall and may be lawful for the rectors of the said rectories and the vicars of the said vicarages respectively for the time being, by indentures under their respective hands and seals, with the consent and approbation of the bishop of the diocese for the time being, and of the patron of the said rectories and vicarages, from time to time to lease and demise all or any part of the allotments to be set out and allotted to them respectively by virtue of this Act, to any person or persons whomsoever, for any term not exceeding twenty-one years, so that the rent or rents for the same shall be thereby reserved to such rectors and vicars for the time being by four equal quarterly payments in every year, and so that there be thereby reserved to such rectors and vicars the best and most improved rent or rents that can be reasonably gotten for the same, without taking any fine, foregift, premium, sum of money, or other consideration for granting any such lease, and so that no such lessee by any such lease or demise be made punishable for waste by any express words to be therein contained, and so that there be inserted in every such lease power of re-entry on non-payment of rent or rents to be thereby reserved within a reasonable time, to be therein limited, after the same shall become due, and so that a counterpart of such lease be duly executed by the lessee or lessees to whom such lease shall be made as aforesaid; and every such lease shall be valid and effectual, any law or usage to the contrary notwithstanding.

*Commissioners in certain Cases to apportion Expences of erecting Boundary Fences.*

XXXII. Provided always, and be it further enacted, That in case, through the necessity of situation or any other accident or circumstance, it shall happen that one or more of the said proprietors shall not have an equal or proportionable quantity of boundary mounds or fences allotted to him, her, or them on the said intended inclosure, it shall be lawful for the said commissioner or commissioners, when he or they shall judge it necessary and reasonable, to award, order, ascertain, and appoint what sum or sums of money such proprietor or proprietors shall respectively pay and contribute towards making the mounds and fences of the allotments of such other proprietor or proprietors who shall or may have too great a proportion of mounding or fencing allotted to him, her, or them by virtue of this Act, the same to be settled by the said commissioner or commissioners in such manner as he or they shall order, direct, or appoint; and the money so ordered, directed, or appointed to be paid shall be raised, levied, and recovered in such and the same manner as the other expences of this Act are herein or by the said recited Act ordered and directed to be levied and recovered.

*Act not to affect Settlements.*

XXXIII. Provided always, and be it further enacted, That nothing in this Act contained shall extend or be construed or adjudged to extend to revoke, make void, alter, or annul any settlement, deed, will, or lease, or to prejudice any person having any right or claim of dower, jointure, annuity, rent-charge, debt, or incumbrance whatsoever in, out of, upon, or affecting any of the lands, tenements, or hereditaments hereby autho-

rized to be divided and allotted, or which shall be exchanged or assigned in compensation for any other estate or right in pursuance of this Act; but as well the lands allotted as the tenements or other hereditaments which shall be assigned in exchange or as a compensation for any other estate or right shall, immediately after such allotment, exchange or assignment shall be made, be vested, remain, and enure, and the several persons to whom the same shall be allotted, assigned, or given in exchange as aforesaid shall thenceforth stand and be seised and possessed thereof respectively, to, for, and upon such and the same uses, estates, intents, trusts, and purposes respectively, and subject and liable to such and the same deeds, wills, settlements, limitations, and remainders, conditions, charges, tenures, rents, services, and incumbrances, as the several lands, tenements, and hereditaments in respect whereof such allotments, assignments, and exchanges shall have been made should or would have stood severally limited, settled, or subject or liable to, or been held by, in case the same had not been allotted, assigned, or exchanged, and this Act had not been made or acted upon; save and except such rents and services as shall have been compensated for and extinguished, and such leases and tenancies at rack rents as shall become void, by virtue of this Act, and subject nevertheless to all such mortgages and sales as shall be made by authority of this Act or of the said Act of the forty-first year of the reign of His late Majesty King George the Third.

*Leases at Rack Rent may be avoided.*

XXXIV. Provided also, and be it further enacted, That all leases, agreements, and tenancies at rack rent subsisting of any part or parts of the lands and grounds hereby authorized to be divided, allotted, and inclosed at the time of the first appointment of any commissioner or commissioners for the inclosure thereof, or which shall be exchanged in pursuance of this Act, shall, so far only as respects the lands hereby authorized to be divided and allotted or exchanged, cease and be void at such time or times as the said commissioner or commissioners shall by writing under his or their hands direct or appoint, so as the respective lessors or landlords of such lands or tenements do, before or at the respective times at which such leases or tenancies shall be directed to cease, make and pay such satisfaction to the respective lessees or tenants for the loss which shall be sustained by the determination of such leases respectively, so far as regards the said lands the tenancy and leases whereof are hereby authorized to be determined, as shall be mutually settled and agreed between them, or as the said commissioner or commissioners, being required by either of the parties, shall ascertain and direct; and the said commissioner or commissioners, being so required, are hereby empowered and directed to apportion a reasonable and proportionable part, according to the season of the year, of the rent, reserved on any such agreement for or in respect of the time which shall have elapsed between the last day on which any payment of the rent shall have become due and the determination of any such lease or agreement; and such part of the rent shall be recoverable by such ways and means as may by law be used for the recovery of rent in arrear; and the said commissioners are hereby empowered and directed in every case where such lands or other hereditaments shall be held by virtue of such lease or agreement, together with other lands or heredita-

ments, by one entire rent, to apportion and determine what part of such rent shall be deducted in respect of such of the lands or other hereditaments in such lease or agreement comprised as to which the same shall be determined as aforesaid, and from what time such deduction shall take place; and the rest of the rent reserved on any such lease or agreement shall, during the remainder of the term thereof, be the rent of and for the residue of such lands and hereditaments, and shall be payable and recoverable in like manner as the entire rent reserved by such lease or agreement shall immediately before such apportionment be payable and recoverable.

*Exchanges may be made.*

XXXV. And be it further enacted, That it shall be lawful for the said commissioner or commissioners to set out, allot, and award any lands, tenements, or hereditaments whatsoever, whether situate within the boundary of such open and common lands or fields as aforesaid, or adjoining thereto, within the parishes, townships, or places in which the lands to be allotted and inclosed are situated, or any of them, in lieu of and in exchange for any other lands, tenements, or hereditaments within the same parishes, townships, or places respectively, or any of them, or within any parish, township, or place adjoining to the said parishes, townships, or places respectively, or any of them; provided that all such exchanges shall be ascertained, specified, and declared in the award of the said commissioner or commissioners, and be made with the consent in writing of the proprietor or proprietors of the hereditaments and premises which shall be so exchanged, whether such proprietor or proprietors shall be a body or bodies politic, corporate, or collegiate, corporation aggregate or sole, rector, parson, vicar, or other ecclesiastical person or persons, or a tenant or tenants in fee simple, or for life, or in fee tail, special or general, or by the courtesy of *England*, or for years determinable on any life or lives, by and with the consent of the lessor or lessors, but not otherwise, or with the consent of the guardians, husbands, committees, or attorneys of or acting for any such proprietor or proprietors who at the time of making such exchange or exchanges shall be respectively infants, femes covert, idiots, lunatics, or under any other legal disability, or who shall be beyond the seas, or otherwise disabled to act for themselves, himself, or herself, or of the trustees or feoffees for charitable, parochial, or other uses, or of the person or persons having power to sell and dispose of the hereditaments and premises which shall be so exchanged (such consent to be testified in writing under the common seal of the body politic, corporate, or collegiate, and under the hands of the other consenting parties respectively); and all and every such exchange and exchanges so to be made respectively shall be good, valid, and effectual in the law to all intents and purposes whatsoever: Provided nevertheless, that no exchange shall be made of any lands, tenements, and hereditaments held in right of any church, chapel, or other ecclesiastical benefice, without the consent, testified as aforesaid, of the patron thereof, and of the bishop of the diocese in which such benefice shall be situate.

*Allotments to be under the same Tenure as the Lands in respect of which they are allotted.*

XXXVI. Provided always, and be it further enacted, that the lands, grounds, and heredita-

ments which shall be allotted or exchanged by virtue of this Act shall be held in like manner, under and by virtue of the same terms and rents, and shall be thereafter deemed to be of the same quality and tenure, as the lands, tenements, or hereditaments in respect of which such allotment or allotments or exchanges shall be made were held or deemed to be of immediately before the making of every such allotment or exchange respectively: Provided always, that when the tithes of any common lands or fields agreed to be allotted or inclosed under the provisions of this Act belong to different persons or do not extend over the whole of such common lands or fields it shall be lawful for the commissioners or commissioner to allot the tithes as well as the land, in order that all persons may have tithe-free allotments in lieu of lands which were before exempted from tithes.

*For defraying Expence of Exchanges.*

XXXVII. Provided also, and be it further enacted, that all costs, charges, and expences attending the making any exchanges and partitions shall be paid and borne by the several persons making such exchanges and partitions in such manner and in such proportions as the said commissioner or commissioners shall, by any writing under his or their hands, order and direct.

*Ditches, &c. may be cleaned, altered, or widened.*

XXXVIII. And be it further enacted, that the said commissioner or commissioners shall and may scour out, widen, and alter all such ancient ditches, drains, watercourses, tunnels, gates, and bridges in the respective open common arable, meadow, or pasture lands or fields (or any one of them) hereby authorized to be allotted and inclosed, and also shall and may set out, widen, and make any new ditches, drains, watercourses, tunnels, gates, and bridges in, through, and over the lands and grounds hereby authorized to be divided, allotted, and inclosed, (the expences thereof to be raised and defrayed, as the other expences of executing the powers of this Act are herein directed to be raised and defrayed,) and of such breadth, depth, and dimensions, and in such directions, as the said commissioners shall think proper; and the said commissioner or commissioners shall and may and they are hereby directed and required in and by their awards to order and determine by whom, and at whose expence, and at what time and in what manner, the said ditches, drains, watercourses, tunnels, gates, and bridges shall be afterwards cleansed, scoured, and maintained, and also shall and may direct, order, and award all or any of the streams, springs, and watercourses within the said lands and fields hereby authorized to be divided, allotted, and inclosed to be carried, diverted, and turned into such courses, and through, over, and across such parts of the lands and fields hereby authorized to be divided, allotted, and inclosed, as they the said commissioners shall in their discretion judge proper for the draining or watering the several allotments so to be made as aforesaid.

*Power to Commissioners to make Drains through Lands not proposed to be inclosed, due Compensation being made for Damage done.*

XXXIX. Provided always, and be it enacted, that if it shall be necessary, for the purpose of carrying off the water from such drains as may be made under the authority of this Act, to make

drains through any land not to be inclosed, divided, or allotted under the same, it shall be lawful for the said commissioners and their servants to enter upon such lands, and make such drains accordingly, due compensation being made for any damage done to such lands thereby; and it shall be lawful for such commissioners in their award to direct by which of the persons to whom any allotment shall be made in any field so divided and inclosed such drains shall be maintained, and the persons so directed to maintain such drains shall maintain the same accordingly, and have the same authority to enter upon such lands as herein-before described, for the purpose of maintaining the same, as is herein-before given to the said commissioners and their servants for the making of the same, making due compensation for any damage which may be done to such lands.

*Upon the Consent of Seven-Eighths in Number and Value, an Inclosure may take place without the Intervention of Commissioners.*

XL. And be it enacted, that in case seven-eighths in number and value of the persons being seised, possessed of, entitled to, or interested in any open and common arable fields, or open and common meadow or pasture lands or fields in *England or Wales*, and any rights of common or any other rights therein, being persons having such estates or interests in the said lands, fields, or rights as are herein-before required for the purpose of consenting to any such proposed inclosure as aforesaid, shall by themselves or their known agents, or if covert, infants, idiots, or lunatic then by their husbands, guardians, or committees, at a public meeting to be called for that purpose in the manner and after the notice herein-before provided for, or at some adjournment thereof, enter into an agreement for such inclosure under the provisions of this Act, but without the intervention of commissioners, and for the discharge of the lands to be inclosed from all rights of common, and for the granting of compensation to such persons as may be possessed of such rights, whether consenting parties to any such agreement or not, and shall sign or seal (as the case may require) the schedule herein-after mentioned, every such inclosure shall, from and immediately after the expiration of the notices of such schedule having been deposited as herein-after mentioned, be as valid and effectual to all intents and purposes (subject only to the right of appeal herein-after given) as if the same had been effected by means of commissioners to be appointed under this Act.

*Schedule of Land proposed to be inclosed to be deposited with the Clerk of the Parish and the Clerk of the Peace; and a Notice thereof affixed on the Church-Door, and published in some Newspaper circulating in the Country.*

XLI. And be it further enacted, that before any land shall be inclosed under the provisions herein contained for inclosure without the assistance of commissioners, a schedule of such land, containing a correct description thereof, and signed by the persons proposing to make such inclosure, and also by the persons whose consent to such inclosure is herein-before required to be given, and whenever the inclosure shall be proposed to be made by any person having a less estate than a fee-simple or under disability, then accompanied by a copy of the several limitations contained in the deed or will under which such person may be entitled, shall be deposited with the clerk of the parish, township, or chapelry, and also with the

clerk of the peace of the county in which the land proposed to be inclosed may be situated; and a notice of such schedule having been so deposited (such notice containing a description of the land intended to be inclosed) shall be published in some newspaper usually circulating in the county wherein such land is situated, at three several times in three successive months after such schedule shall have been so deposited, and a copy thereof shall be affixed on the principal outer-door of the church or chapel of the parish or township in which the land may be situated, before the commencement of divine service, or if there be no church or chapel then in some conspicuous place there, for three successive *Sundays* after such schedule shall have been so deposited: Provided always, that whenever such inclosure shall be proposed to be made by a corporation aggregate, or the consent of a corporation aggregate shall be necessary thereto, the affixing of the common seal of such corporation to such schedule shall be deemed a sufficient compliance with the provisions of this Act.

*Incapacitated Persons enabled to enter into an Agreement for Compensation.*

XLII. And be it further enacted, that it shall be lawful for any person who shall be seised or possessed of or entitled in possession to any land or tenement in respect of which compensation may be proposed or ought to be given, or to which any right of common may attach, or who, having no land in the common field in which an inclosure is proposed to be made, may nevertheless have a right of common therein, whether such person shall be tenant in fee simple, or fee tail, general or special, or for life or lives, or by the courtesy of England, or for any other estate of freehold, or for years determinable on any life or lives, and also for any person whose right of common may be merely personal, and for the guardian, trustee, feoffee for charitable or other uses, husband, or committee of such person who shall be an infant, idiot, lunatic, or feme covert, or under any other disability, to consent and agree to the compensation which may be offered or which ought to be given by the persons making such inclosure, not only as to the nature and amount of such compensation, but as to the manner in which the same shall be secured, and to sign the agreement for that purpose; but no such agreement shall be valid if entered into by any person having a limited interest only, or by any incumbent of a benefice, without the consent of the same persons and to be testified in the same manner as herein-before required in the case of such persons being respectively parties to any agreement for inclosure: Provided always, that in case such compensation or any part thereof shall be agreed to be paid in money, and such money shall belong to any persons who in the said first-recited Act are mentioned or described as persons incapacitated to receive the same, then such money shall be paid and applied in such and the same manner as money belonging to such persons is directed to be applied under the provisions of the said first-recited Act.

*Persons having objections to such Inclosure to deposit them with the Clerk of the Peace, within Six Months.—To be open to Inspection.*

XLIII. And be it further enacted, that whenever any agreement for compensation may or may not have been entered into, and notwithstanding any such agreement, if any person interested in any such inclosure, other than a person who may have signed such agreement or otherwise consented thereto, shall

object to such inclosure, or to the nature or amount of any compensation which may be offered, or to the manner in which such compensation may be proposed to be secured, or on account of there not having been any compensation offered, it shall be lawful for him to state such objection in writing, and to deposit the same with the clerk of the peace at any time within six calendar months from the expiration of the aforesaid notices of the deposit of such schedule; and such schedule and copy of limitations, and every statement and document annexed to such schedule, and every statement of objection which may be so deposited, shall be open to the inspection of any person interested, and the deposit of such statement of objections in manner aforesaid shall be deemed and taken to be a sufficient notice to all persons interested in such inclosure.

*Clerk of the Peace to lay the Schedule &c. before the Justices at Quarter Sessions, who shall hear and determine upon such objections.*

XLIV. And be it further enacted, that the clerk of the peace shall cause the schedule and statement of objections, and all other papers relating thereto, and which shall have been so deposited with him, to be laid before the justices at the General Quarter Sessions of the Peace, or at some adjourned meeting thereof, which shall be held not earlier than twenty-eight days next after the deposit of such objections, in and for the county, riding, or division wherein the lands proposed to be inclosed, or the greater part thereof, shall be situate; and all such objections shall be heard and determined by the said justices in manner hereinafter provided.

*Persons interested in Allotments may sell the same before the Award; and Commissioners may allot them to the Purchasers.*

XLV. And be it further enacted, that it shall and may be lawful for any person or persons interested in the said allotments at any time to mortgage, sell, demise, or dispose of all such estate, right, title, interest, and property which he, she, or they shall then have in or to the said open and common arable, meadow, or pasture lands or fields (or any one of them), and of the allotments set out in lieu thereof, before the execution of the award of the said commissioner or commissioners; and it shall be lawful for the said commissioner or commissioners, and he or they are hereby authorized and required, upon the conveyance or other instrument by which such sale or disposition is confirmed being produced to them, and the execution thereof proved to their satisfaction, to allot the same to the purchaser or purchasers thereof respectively; and if not so allotted such conveyance or other instrument shall be valid and effectual in law, notwithstanding it may have been so made before the execution of the said award.

*Tenants for Life empowered to Allotments to defray Expenses.*

XLVI. And be it further enacted, that it shall be lawful for the said commissioner or commissioners, in case he or they shall be requested by writing under the hand or hands of any person or persons being tenant for life, or other person being in possession of, but not having the absolute estate or interest in, any lands hereby authorized to be allotted and inclosed, to sell and dispose of any part or parts of the allotment or allotments belonging to such person or persons, for the purpose of defraying his, her, or their shares of the costs, charges, and expences of putting into execution this Act and the said recited Act of the forty-first year of the reign of His late Majesty King George the Third, and the

expences of fencing, ditching, subdividing, and inclosing such allotment or allotments; and the said commissioners shall accordingly sell such part or parts of such allotment or allotments, either by private contract or public auction, as they shall think proper, to such person or persons as shall be willing to purchase the same, and shall convey the same to such purchaser or purchasers by any deed under their hands and seals; and the receipt of the said commissioners for such money shall be a full and complete discharge to such purchaser or purchasers for such purchase money; and the said commissioners shall apply the purchase money in or towards the payment of such expences, and in fencing, ditching, subdividing, and inclosing the said allotment or allotments respectively, and not otherwise; but such purchaser or purchasers shall not be liable to see to the necessity or expediency of such sale, nor be answerable nor accountable for the misapplication of such purchase money; and upon the payment of such purchase money or purchase monies into the hands of the said commissioner or commissioners, the lands so to be sold as last aforesaid shall thereupon be vested in fee simple in possession (if such allotment or allotments is or are made in right of freehold) in the purchaser or purchasers thereof, and the same shall be thenceforth held in severalty by such purchaser or purchasers thereof respectively, as his, her, or their private property, and shall be allotted accordingly by the said commissioner or commissioners.

*When Allotments to a Tenant for Life are in different Parishes, Commissioners may sell the Land in one Parish to defray Expences attending the other Portion of the Allotment.—Proviso.*

XLVII. Provided always, and be it further enacted, that where any allotment or allotments so to be made to any person or persons being tenant for life or in tail, or other person being in possession, but not having the absolute estate or interest in any lands hereby authorized to be allotted and inclosed, which stand limited to the same uses, shall be situated partly in one and partly in another parish or township or place, it shall and may be lawful to and for the said commissioner or commissioners, in case they shall be requested as last herein-before mentioned, to sell and dispose of, and to convey and assure to the purchaser or purchasers thereof, any part or parts of the said allotments belonging to such person or persons in any one or more of the said parishes, townships, or places, in manner in that behalf herein-before mentioned, as well for the purpose of defraying his, her, or their share or shares of the costs, charges, and expences of putting into execution this Act and the said recited Act, and the expences of fencing, ditching, subdividing, and draining such allotment or allotments in respect of such of the said lands as are situated within the same parish wherein the said allotment or allotments so sold may be situated, as for and in respect of such of the said lands or other hereditaments or allotments as may be situated in any other township or place: Provided always, that it shall not be lawful to raise by such sale any further or greater sum of money than the person or persons part of whose allotment or allotments may be sold or disposed of would have been empowered and authorized to borrow or charge upon his, her, or their allotment or allotments under or by virtue of the said recited Act or this Act, reckoning five pounds for each and every acre of such allotment or allotments.

*Not to charge Lands with Expences unless the Sum to arise by the Sale shall be less than 5l per Acre.*

XLVIII. Provided always, and be it further en-

acted, that it shall not be lawful for the proprietor or person from whose allotments lands shall be as aforesaid deducted to charge his, her, or their lands or hereditaments, by virtue of the said recited Act or this Act, with any money towards payment of such expences, unless the money to arise by such sale shall be less than the sum of five pounds per acre: and then and in such case it shall be lawful for such person or persons to charge his, her, or their estate or estates with, or to raise by mortgage thereof, or other means or ways, as mentioned in the said recited Act or this Act, such further sum of money as may be necessary for the payment of the expences of executing this Act, and subdividing the said allotments, as, together with the value of the lands so deducted, shall not exceed the amount that might be borrowed and charged on the lands to be divided and allotted at the rate of five pounds for each and every acre.

*For Payment of Expences of measuring, dividing, allotting, and inclosing Open and Common Lands.*

XIX. And be it further enacted, that the charges and expences of surveying, valuing, planning, measuring, dividing, and allotting the said open and common arable, meadow, or pasture lands of fields hereby authorized to be divided, allotted, and inclosed, and of fencing the lands of the persons from whom a deduction of land shall be made as herein-before directed, and also the expences of preparing and enrolling the awards of and the allowances and payments to be made to the said commissioner or commissioners, umpire, and surveyors respectively, as herein-before directed, and all other charges and expences incident to or attending the carrying this Act into execution, shall be paid, borne, and defrayed by all the proprietors of the lands and hereditaments so authorized to be divided, allotted, and inclosed, or exchanged, in such proportions as the said commissioner or commissioners shall settle and adjust, and determine, to be paid at such time or times and to such person or persons as they the said commissioner or commissioners shall order and direct; notice thereof in writing under their hands being given thirty days before the time such payment shall be required: Provided always, that in case any number of persons whose allotments shall not exceed two acres respectively shall have required their allotments to be thrown together as aforesaid, such persons shall not be liable to pay, bear, or defray any part of the charges and expences as aforesaid: Provided also, that it shall be lawful for four-fifths in number and value of the proprietors and persons interested as aforesaid, at any meeting to be held as herein-before is mentioned, to agree that any persons whose allotments shall not exceed five acres respectively shall not be liable to pay, bear, or defray any part of the charges and expences aforesaid, and such persons shall by virtue of such agreement be exempt from all liability thereto.

*Commissioners to account.*

L. And be it further enacted, that once at least in every year, to be computed from the first appointment of such respective commissioner or commissioners, the accounts of the said commissioners, commissioner, or umpire, containing a true statement of all and every sum and sums of money by them received and expended, or due to them for their trouble and expence in the execution of this Act and the said recited Act of the forty-first year of the reign of his late Majesty King George the Third, until such account shall be finally settled, shall, together with the vouchers relating to the same, be by them laid before three of his Majesty's justices of the peace for



the county in which the lands to be inclosed, or the greater part of them, shall be situated, to be by them examined and balanced; and such balance shall be stated in the books of account to be kept in the office of the clerk of the said commissioners; and no charge or item in such account shall be binding on the parties concerned, or valid in law, unless the same shall be so allowed: Provided also, that it shall not be lawful for the commissioners to be appointed in pursuance of this Act, or any of them, to retain or pay to themselves or clerk, out of any monies to be received by them or over which they may have any control in the execution of any inclosure to be effected under this Act, any sum or sums of money on account of any allowance herein-before directed to be made to such commissioners and clerk respectively beyond one-third of such allowance as they shall respectively be entitled to as aforesaid, until after the expiration of six calendar months from the day of the delivery of the award hereby directed to be made in the church of the parish in which the lands inclosed may be situated.

*Awards.*

LI. And be it further enacted, That the said commissioner or commissioners shall make and execute awards, with maps or plans thereto annexed, and shall cause the same to be enrolled in manner as directed by the said recited Act; and such awards shall be deposited in the respective parish churches of the parishes wherein the lands so to be allotted and inclosed, or the greater part thereof, are situated.

*Provisions of Recited Acts, where not Altered or Repealed, extended to this Act.*

LII. And be it further enacted, That all and every the clauses, provisions, and enactments contained in the said Act of the forty-first year of the reign of King George the Third and of the first year of the reign of King George the Fourth, or such of them as are applicable to and consistent with the purposes and object of this Act, shall and may be in full force and effect for carrying into effect the allotments, divisions, inclosures, and exchanges hereby authorized to be made, as fully and effectually as if such clauses, provisions, and enactments had been herein repeated and re-enacted, and been made part of this Act, with such alterations and variations as would adapt them and render them applicable to the object and purposes of this Act.

*Appeal to Quarter Sessions where Parties think themselves aggrieved.*

LIII. And be it further enacted, That it shall be lawful for all persons who shall think themselves aggrieved by any thing done by virtue of this Act or the said recited Act (except in cases where the things so done are herein or by the said Act of the forty-first year of his late Majesty King George the Third declared to be final, binding, and conclusive,) to appeal to the General Quarter Sessions of the Peace which shall be held in and for the county, riding, or division wherein the lands, or the greater part thereof, in respect of which the matter of complaint may arise, shall be situated, or any adjournment thereof within six calendar months next after the cause of complaint shall have arisen, first giving or causing to be given twenty-eight days notice thereof in writing to the said commissioner or commissioners, or one of them, or to the parties intended to be appealed against: and the justices at their said Quarter Sessions, or any adjournment thereof, are hereby authorized and required to hear and determine the matter of every such appeal, and shall also hear and determine any appeal against the

sum agreed to be paid to any commissioner or surveyor, or against the adoption of any plan, map, admeasurement, or valuation, or against any rules, conditions, and principles which may have been agreed upon in manner aforesaid for the guidance of the commissioner or commissioners or umpire in making allotments, and shall also hear and determine all objections (if any) which may have been made in manner aforesaid to any inclosure without the assistance of commissioners, or to the nature or amount of the compensation which may have been offered, or to the manner in which the same may have been proposed to be secured, or on account of there not having been any compensation offered, and to make such order in every such case respectively, and to award such costs, as to them in their discretion shall seem meet, and by their warrant to levy the costs awarded by distress and sale of the goods and chattels of the parties respectively adjudged to pay the same, rendering the overplus (if any) to the respective owners of such goods and chattels, after deducting the reasonable charges of such distress and sale; and every determination of the said justices shall be final and conclusive on all parties concerned; and no such complaint, appeal, or proceeding shall be removed or removeable by certiorari or any other writ or proceeding whatsoever into any of his Majesty's Courts of Record at Westminster or elsewhere; but in case such appeal shall appear to the said justices to be frivolous, vexatious, or without foundation, then the said justices shall award such costs to be paid by the appellant or appellants as to them in their discretion shall seem reasonable, and to be levied in manner aforesaid.

*Act not to affect Rights of Lords of Manors.*

LIV. Provided always, and be it further enacted, That nothing in this Act contained shall in any case authorize the inclosure of any waste whatsoever, whether the soil thereof shall or shall not be vested in the Lord of any Manor, and whether with or without the assent of the Lord of such Manor; nor shall any thing in this Act contained prejudice, lessen, or defeat the right, title, or interest of the respective Lords for the time being of any such Manors in or to any of the royalties or seignories, fisheries, manorial and other rights, customs, and services incident or belonging to the said respective Manors or any of them; but that such respective Lords, and all and every person and persons claiming in trust for him or them as such respective Lords for the time being of the said several and respective Manors, shall and may at all times for ever hereafter have, hold, receive, take, and enjoy all rents, services, courts, perquisites and profits of courts, fines, goods and chattels of felons and fugitives, felons of themselves and put in exigent, deodands, waifs, estrays, and forfeitures, privileges and jurisdictions of their several and respective manors, to the respective Lords thereof, or any person or persons claiming under him or them, incident, belonging, or appertaining, except in respect of any land or estate for which compensation is herein-before authorized to be made, in as full, ample, and beneficial manner to all intents and purposes as the same might or ought to have been held and enjoyed in case this Act had not been passed.

*Act not to authorize the Inclosure of any Open or Common Fields within certain Distances of large Towns.*

LIV. Provided always, and be it further enacted, that nothing in this Act contained shall authorize the inclosure of any open or common arable fields, or of any open or common meadow or pasture lands or fields, situate, and being within ten miles of the city

of London, or of any open or common meadow or pasture lands or fields situate and being within one mile of any city or town of five thousand inhabitants, or within one mile and a half of any city or town of fifteen thousand inhabitants, or within two miles of any city or town of thirty thousand inhabitants, or within two miles and a half of any city or town of seventy thousand inhabitants, or within three miles of any city or town of one hundred thousand inhabitants, provided that in all cases the number of such inhabitants shall be ascertained by the then last Parliamentary census thereof, and that such distance shall be measured in a direct line from the town hall if there shall be any town hall, or if there shall be no such town hall, then from the cathedral or church, if there shall be only one church, or if there shall be more churches than one then from the principal market place of any such city or town.

*Meaning of certain Words in this Act.*

LVI. And be it further enacted, that the words and expressions herein-after mentioned, which in their ordinary signification have a more confined or a different meaning, shall in the construction of this Act, except when the nature of the provision or the context of the Act exclude such construction, be interpreted as follows; (that is to say,) the words "Proprietor" "owner," and "person," shall respectively extend as well to an individual as to a body politic, corporate or collegiate, and to a corporation as well aggregate as sole, whether such corporation be eleemosynary or civil, ecclesiastical or lay; the word "benefice" shall extend to and be taken to comprehend rectories, vicarages, donatives, perpetual curacies, parochial and consolidated chapelries and churches, and chapels having a district assigned thereto; the word "tithes" shall extend to any rent-charge or payment in lieu of tithes; the word "land" shall extend to every species of land, whether arable, meadow, or pasture, and whether freehold, copyhold, or customary, or held by any other tenure, and as well to one piece or parcel as to any number of pieces or parcels of land: the word "parish" shall be construed to include any parish, township, liberty, precinct, vill, village, hamlet, tithing, chapelry, or any other place or division or district of a place, whether parochial, or extra-parochial; and every word importing the singular number only shall extend and be applied to several persons or things as well as one person or thing.

*Saving the Rights of His Majesty in respect of the Duchy of Cornwall, or of the Duke of Cornwall for the time being.*

LVII. Provided further, and be it enacted, that nothing in this Act contained shall extend or be construed to extend to affect, prejudice, or derogate from the estate, right, title, interests, privileges, or

authority of the King's most Excellent Majesty, his heirs and successors, in right or in respect of his Duchy of Cornwall, or of the Duke of Cornwall for the time being, or to authorize, sanction, or permit the inclosure of any lands, grounds, tenements, or hereditaments whatsoever, or give any right or title whatsoever to any encroachment or intake heretofore made thereupon, or otherwise affect any lands, grounds, tenements, or hereditaments whatsoever belonging to or held of or being within and forming part and parcel of any manor, messuage, or tenement, open field, pasture, common, or other land or ground whatsoever, or any advowson, rectory, or vicarage, parcel of the possessions of the Duchy of Cornwall, or wherein or whereunto, or over, upon, or with reference whereto, His Majesty, in respect of his said Duchy of Cornwall, or the Duke of Cornwall for the time being, may have or claim to have any estate, right, title, or interest whatsoever, nor at any time or times be admitted in any court of law or equity or otherwise considered as evidence upon any occasion to affect in any manner his Majesty, his successors, in right or in respect of his said Duchy of Cornwall, or the Duke of Cornwall for the time being.

*Saving as to the Duchy of Lancaster.*

LVIII. Provided always, and be it further enacted, that nothing in this Act contained shall authorize the inclosure of any open land in, to, or over which his Majesty, in right of his Crown or of his Duchy of Lancaster has or may have or claim to be entitled to any estate, right, title, or interest whatsoever.

*General Saving.*

LIX. Saving always to the King's most Excellent Majesty, his heirs and successors, and to all and every other person and persons, bodies politic and corporate, ecclesiastical and civil, his, her, or their respective heirs, successors, executors, and administrators, (other than and except the persons to whom any allotment or compensation shall be made by virtue of this Act, in respect of the interest or property for which such allotment or compensation shall be made to them in respect of such right, and except such other rights and interests as the intents and purposes hereby authorized shall absolutely require to be barred, destroyed, or extinguished by this Act, and all persons respectively claiming under them or in remainder after them,) all such estate, right, title, interest, claim and demand as they, every or any of them, had or enjoyed of, in, to, or out of the said open and common arable, meadow, or pasture lands or fields hereby authorized to be divided, allotted, and inclosed, before the passing this Act, or the carrying the powers thereof into execution, or could or might have held or enjoyed in case this Act had not been made, or the powers thereof had not been carried into execution.

## N O T I C E.



The Introduction to the “COMMON FIELDS INCLOSURE ACTS” will be ready with the Number for January, so as to be bound up with the Acts at the end of the Fifth Volume of the FARMER’S MAGAZINE, and will make in the whole 49 pages.

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### TO CORRESPONDENTS.



To “FAIR-PLAY.”—Mr. Cayley’s answer to Mr. Shaw Lefevre, shall appear in the FARMER’S MAGAZINE for January. It is omitted solely from press of other important matter.



## NOTICE.

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The INTRODUCTION, NOTES, and INDEX to the “Common Fields Inclosure Act,” will appear in THE FARMER’S MAGAZINE for DECEMBER; so that the whole may bind up together at the end of the Volume which terminates the year.



# AN ACT

FOR

CONSOLIDATING IN ONE ACT CERTAIN PROVISIONS USUALLY INSERTED IN ACTS OF INCLOSURE, AND FOR FACILITATING THE MODE OF PROVING THE SEVERAL FACTS USUALLY REQUIRED ON THE PASSING OF SUCH ACTS.

41. GEORGE III.

[2nd July, 1801.]

*No Person shall act as a Commissioner under any future Act for inclosing Lands, except signing Notice of First Meeting, and administering an Oath, until he shall have taken the Oath herein mentioned.*

WHEREAS, in order to diminish the expence attending the passing of Acts of inclosure, it is expedient that certain clauses usually contained in such Acts should be comprised in one law, and certain regulations adopted for facilitating the mode of proving the several facts usually required by Parliament on the passing of such Acts: May it therefore please your Majesty that it may be enacted; and be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the lords spiritual and temporal, and commons, in this present Parliament assembled, and by the authority of the same, that no person shall be capable of acting as a commissioner in the execution of any of the powers to be given by any Act hereafter to be passed for dividing, allotting, or inclosing any lands or grounds, except the power of signing and giving notice of the first meeting of the commissioner or commissioners for executing any such Act, and of administering the oath or affirmation herein-after directed, until he shall have taken and subscribed the oath or affirmation following:

'I A. B. do swear, [or, being one of the People called Quakers, do solemnly affirm,] that I will faithfully, impartially, and honestly, according to the best of my skill and ability, execute and perform the several trusts, powers, and authorities vested and reposed in me as a commissioner by virtue of an Act for [here insert the Title of the Act], according to equity and good conscience, and without favour or affection, prejudice or partiality, to any person or persons whomsoever. So help me God.'

*Oath and Appointment to be inrolled with the Award.*

Which oath or affirmation it shall be lawful for any one of the commissioners, where more than one shall be appointed by any such Act, or any one justice of the peace for the county within which the said lands or grounds shall be situated, where only one commissioner shall be so appointed, to administer, and they are hereby respectively required to administer the same; and the said oath or affirmation so to be taken and subscribed by each commissioner, and also the appointment of every new commissioner, shall be annexed to and inrolled with the award of any commissioner or commissioners, and a copy of the

inrolment thereof shall be admitted as legal evidence.

*Commissioners declining to act to give Notice of such Intention.—Commissioners not to be Purchasers for a limited Time.*

II. And be it further enacted, that every person appointed a commissioner in or by virtue of any such Act, who shall refuse or decline to act as such, shall forthwith give notice in writing to the other commissioner or commissioners of his intention to refuse or decline acting as a commissioner: Provided always, that no such commissioner shall be capable of being a purchaser of any part or parts of the lands, tenements, or hereditaments within any parish in which the lands and grounds intended to be inclosed are situate, either in his own name or in the name or names of any person or persons, until five years after the date and execution of the award to be made by any such commissioner or commissioners.

*Boundaries of Parishes to be ascertained.—Description of Boundaries to be delivered to one of the Churchwardens &c. of the respective Parishes, and the Lords of Manors, or their Stewards.—Appeal to Quarter Sessions.*

III. And whereas disputes or doubts may arise concerning the boundaries of parishes, manors, hamlets, or districts to be divided and inclosed, and of parishes, manors, hamlets, or districts adjoining thereto; be it therefore enacted, That the commissioner or commissioners appointed in or by virtue of any such Act shall and he or they is and are hereby authorized and required, by examination of witnesses upon oath or affirmation (which oath or affirmation any one of such commissioners is hereby empowered to administer), and by such other legal ways and means as he or they shall think proper, to inquire into the boundaries of such several parishes, manors, hamlets, or districts; and in case it shall appear to such commissioner or commissioners that the boundaries of the same respectively are not then sufficiently ascertained and distinguished, such commissioner or commissioners shall and he or they is and are hereby authorized and required to ascertain, set out, determine, and fix the same respectively; and after the said boundaries shall be so ascertained, set out, determined, and fixed, the same shall and are hereby declared to be the boundaries of such parishes, manors, hamlets, or districts: Provided always, that

such commissioner or commissioners (before he or they proceed to ascertain and set out the boundaries of such parishes, manors, hamlets, or districts,) shall, and he or they is and are hereby required to give public notice, by writing under his or their hands to be affixed on the most public doors of the churches of such parishes, and also by advertisement to be inserted in some newspaper to be named in such Act, and also by writing to be delivered to or left at the last or usual places of the abode of the respective lords or stewards of the lords of the manors in which the lands and grounds to be inclosed shall besituate, and of such adjoining manor or manors, ten days at least before the time of setting out such boundaries, of his or their intention to ascertain, set out, determine, and fix the same respectively; and such commissioner or commissioners shall, within one month after his or their ascertaining and setting out the same boundaries, cause a description thereof in writing to be delivered to or left at the places of abode of one of the churchwardens or overseers of the poor of the respective parishes, and also of such respective lords or stewards: Provided always, that if any person or persons interested in the determination of the said commissioner or commissioners respecting the said boundaries shall be dissatisfied with such determination, such person or persons may appeal to the justices of the peace acting in and for the county in which such lands or grounds shall be situate, at any general quarter session of the peace to be holden within four calendar months next after the aforesaid publication of the said boundaries, by delivering or leaving such description as aforesaid, the party or parties making such appeal giving eight days notice of such appeal, and of the matter thereof, in writing to the commissioners; and the decision of the said justices therein shall be final and conclusive, and shall not be removed or removable by certiorari, or any other writ or process whatsoever, into any of his Majesty's courts of record at Westminster or elsewhere.

*A Survey, Admeasurement, Plan, and Valuation of the Lands, &c. to be inclosed, shall be made.—Proprietors may inspect Admeasurements and Plans, and take Copies.*

IV. And be it further enacted, That a true, exact, and particular survey, admeasurement, plan, and valuation of all the lands and grounds to be divided, allotted, and inclosed by any such Act, and also of all the messuages, cottages, orchards, gardens, homesteads, ancient inclosed lands and grounds within any such parish or manor, shall be made and reduced into writing by such commissioner or commissioners, or by such other person or persons as he or they shall nominate and appoint, as soon as conveniently may be, for the purposes of such Act; and the number of acres and decimal parts of an acre in statute measure, contained in all the lands and grounds directed or authorized to be divided, allotted, and inclosed, and also in all the ancient inclosed lands, grounds, and homesteads aforesaid, and of each and every proprietor's distinct property in the same respectively at the time of making such survey and admeasurement, shall be therein set forth and specified; and that the said survey, admeasurement, plan, and valuation shall be kept by such commissioner or commissioners; and the person or persons who shall make such survey, admeasurement, plan, and valuation shall verify the same upon oath or affirmation at any meeting to be held after the making thereof (which oath or affirmation the commissioners, or any one of them, are and is hereby empowered and required to administer); and the proprietors and their

respective agents, and all persons interested therein, shall at all seasonable times have liberty to peruse and inspect such admeasurement and plan only, and to take copies thereof and extracts therefrom respectively.

*Lands may be entered upon to make Surveys, &c.—Maps made at the time of passing Act may be used without making new ones.*

V. And be it further enacted, That for surveying, admeasuring, and valuing all the said lands and grounds, and for other the purposes of such Act, it shall be lawful for such commissioner or commissioners, every or any of them, or the person or persons to be appointed by him or them to make such survey, admeasurement, plan, and valuation, together with their and every of their assistants and servants, at any time or times whatsoever, until such division shall be completed, to enter, view, and examine, survey, and admeasure, all and every part of the lands and grounds intended to be divided and allotted, and also all the ancient inclosed lands, grounds, and homesteads directed to be surveyed, and to do or cause to be done any Act or thing necessary for putting such Act into execution: Provided always, that any map or survey made at the time of passing any such Act, which shall be tendered to such commissioner or commissioners, and which shall be in his or their judgment and to his or their satisfaction a just and true map or survey proper for the purpose of carrying such Act into execution, may be used for that purpose, if the said commissioner or commissioners shall think fit, without any new map or survey being made of such part of the lands and grounds as shall be comprised in any such approved map or survey as aforesaid.

*Claimants of Rights in Lands to be inclosed to deliver to the Commissioners Schedules of Particulars, or shall be excluded, which Claims may be inspected, and Copies taken.—Objections to Claims to be delivered to the Commissioners at or before the Meeting for that Purpose, or shall not be received, except for special Cause.*

VI. And be it further enacted, That all persons and bodies corporate or politic, who shall have or claim any common or other right to or in any such lands so to be inclosed, shall deliver or cause to be delivered to such commissioner or commissioners, or one of them, at some one of such meetings as the said commissioner or commissioners shall appoint for the purpose, (or within such further time, if any, as the said commissioner or commissioners shall for some special reason think proper to allow for that purpose,) an account or schedule in writing, signed by them, or their respective husbands, guardians, trustees, committees, or agents, of such their respective rights or claims, and therein describe the lands and grounds, and the respective messuages, lands, tenements, and hereditaments in respect whereof they shall respectively claim to be entitled to any and which of such rights in and upon the same, or any part thereof, with the name or names of the person or persons then in the actual possession thereof, and the particular computed quantities of the same respectively, and of what nature and extent such right is, and also in what rights and for what estates and interests they claim the same respectively, distinguishing the freehold from the copyhold or leasehold; or on noncompliance therewith, every of them making default therein shall, as far only as respects any claim so neglected to be delivered, be totally barred and excluded of and from all right and title in or upon such lands so to be divided respectively, and of and from all benefit and advantage in or to



any share or allotment thereof; all which said claims or accounts shall, at all reasonable times until after the execution of the said award, be open to the inspection and perusal of all parties interested or claiming to be interested in the premises, their respective agents or attorneys, who may take copies thereof or extracts therefrom respectively; and if any person or persons, or bodies politic or corporate, interested or claiming to be interested in the premises, shall have any objection to offer to any such account or claim, the particulars of such objection shall be reduced into writing and signed by them, or their respective husbands, guardians, trustees, committees, or agents, and shall be delivered to the said commissioner or commissioners at or before some other meeting of such commissioner or commissioners, to be by him or them appointed for that purpose; and no such objection shall afterwards be received, unless for some legal disability or special cause to be allowed by the said commissioner or commissioners.

*Commissioners not hereby authorized to determine Disputes touching Rights; but they shall assign the Allotments to the Persons in actual Possession of the Lands in lieu whereof made.*

VII. Provided also, and be it further enacted, That nothing herein contained shall authorize such commissioner or commissioners to hear and determine any difference or dispute which may arise touching the right or title to any lands, tenements, or hereditaments; but such commissioner or commissioners shall assign and set out the several allotments directed to be made unto the person or persons who at the time of the division and inclosure shall have the actual seisin or possession of the lands, tenements, or hereditaments in lieu or in right whereof such allotment shall be respectively made: Provided also, that no difference or suit touching the title to any lands, tenements, or hereditaments shall impede or delay the commissioner or commissioners in the execution of the powers vested in him or them by virtue of any such Act, but the division or inclosure directed to be made shall be proceeded in, notwithstanding such difference or suit.

*Commissioners before making any Allotments, to appoint public Carriage Roads, and prepare a Map thereof, to be deposited with their Clerk, and give Notice thereof, and appoint a Meeting, at which, if any person shall object, the Commissioners, with a Justice of the Division, shall determine the Matter.—If the Commissioners by any Bill shall be empowered to stop up any old Road, it shall not be done without the Order of Two Justices, and which shall be subject to Appeal to the Quarter Sessions.*

VIII. And be it further enacted, That such commissioner or commissioners shall and he or they is and are hereby authorized and required, in the first place, before he or they proceed to make any of the divisions and allotments directed in and by any such Act, to set out and appoint the public carriage roads and highways through and over the lands and grounds intended to be divided, allotted, and inclosed, and to divert, turn, and stop up any of the roads and tracts upon and over all or any part of the said lands and grounds, as he or they shall judge necessary, so as such roads and highways shall be and remain thirty feet wide at the least, and so as the same shall be set out in such directions as shall, upon the whole, appear to him or them most commodious to the public; and he or they are hereby further required to ascertain the same by marks and bounds, and to prepare a map in which such intended roads

shall be accurately laid down and described, and to cause the same, being signed by such commissioner, if only one, or the major part of such commissioners, to be deposited with the clerk of the said commissioner or commissioners, for the inspection of all persons concerned, and as soon as may be after such carriage roads shall have been so set out and such map so deposited, to give notice in some newspaper to be named in such bill, and also by affixing the same upon the church door of the parish in which any of the lands so to be inclosed shall lie, of his or their having set out such roads and deposited such map, and also of the general lines of such intended carriage roads, and to appoint in and by the same notice a meeting to be held by the said commissioner or commissioners, at some convenient place in or near to the parish or township within which the said inclosure is to be made, and not sooner than three weeks from the date and publication of such notice, at which meeting it shall and may be lawful for any person who may be injured or aggrieved by the setting out of such roads to attend; and if any such person shall object to the setting out of the same, then such commissioner or commissioners, together with any justice or justices of peace acting in and for the division of the county in which such inclosure shall be made, and not being interested in the same, who may attend such meeting, shall hear and determine such objection, and the objections of any other such person, to any alteration that the said commissioner or commissioners, together with such justice or justices, may in consequence propose to make, and shall and he or they are hereby required, according to the best of their judgment upon the whole, to order and finally direct how such carriage roads shall be set out, and either to confirm the said map, or make such alterations therein as the case may require: Provided always, that in case such commissioner or commissioners shall by such bill be empowered to stop up any old or accustomed road passing or leading through any part of the old inclosures in such parish, township, or place, the same shall in no case be done without the concurrence and order of two justices of the peace acting in and for such division, and not interested in the repair of such roads; and which order shall be subject to an appeal to the quarter sessions, in like manner and under the same forms and restrictions as if the same had been originally made by such justice as aforesaid.

*The Carriage Roads shall be fenced on both Sides by such of the Land Owners as the Commissioners shall direct; and no Person shall erect any Gate across any Road, or plant any Trees on the Sides, at less than Fifty Yards Distance.—The Commissioners shall appoint Surveyors, and if with a Salary, such Salary and the Expence of making the Road, over and above the Statute Duty, shall be raised as other Expenses, and paid on or before Execution of the Award.—Surveyors to be subject to the Control of the Justices, and shall account to them for Monies received.—Justices may levy Rates.—If Surveyors neglect to complete Roads within a limited Time, they shall forfeit 20l. and the Inhabitants shall not be chargeable to them (except Statute Duty) till declared to be completed at a Special Sessions.*

IX. And be it further enacted, That such carriage roads so to be set out as aforesaid shall be well and sufficiently fenced on both sides by such of the owners and proprietors of the lands and grounds intended to be divided, allotted, and inclosed, and within such time, as such commissioner or commissioners shall by any writing under his or their hands direct or appoint; and that it shall not be lawful for any person

or persons to set up or erect any gate across any such carriage road, or to plant any trees in or near to the hedges on the sides thereof at a less distance from each other than fifty yards; and such commissioner or commissioners shall and he or they is and are hereby empowered and required, by writing under his or their hands, to nominate and appoint one or more surveyor or surveyors, with or without a salary, for the first forming and completing such parts of the said carriage roads as shall be newly made, and for putting into complete repair such part of the same as shall have been previously made; which salary (if any), and also the expence of forming, completing, and repairing such roads respectively, over and above a proportion of the statute duty on the roads so to be repaired, shall be raised in like manner as the charges and expences of obtaining and passing any such Act and of carrying the same into execution shall be thereby directed to be raised, and shall be paid to such surveyor or surveyors on or before the execution of the award of such commissioner or commissioners; and in case the same shall be thereby provided to be raised by sale of any part of the lands so to be divided and inclosed, that then such commissioner or commissioners shall make a conditional rate upon the owners and proprietors of the same, in case the produce of such sale shall prove insufficient for the purposes aforesaid; and such surveyor or surveyors shall and he or they is and are hereby directed to be in all respects subject to the jurisdiction and controul of the justices of the peace acting in and for the county in which such roads shall respectively lie, and shall account to such justices in like manner for all monies so to be by him or them received and expended, and for the repayment of any surplus which may remain in his or their hands to such persons as shall have been made liable to contribute thereto, according to the proportion so as above ascertained by such commissioner or commissioners; and such justices shall have the like powers of levying any such rate as may by them be thought necessary for the purposes aforesaid, according to the proportions previously ascertained by such commissioner or commissioners, as if such surveyor or surveyors had been appointed under or by virtue of the general highway Act passed in the thirteenth year of the reign of his present Majesty; and in case such surveyor or surveyors shall neglect to complete and repair such roads respectively within the space of two years after such award, unless a further time, not exceeding one year, shall for that purpose be allowed by such justices, and then within such further time, he or they shall forfeit the sum of twenty pounds: and the inhabitants at large of the parish, township, or place wherein such roads shall be respectively situate shall be in no wise charged or chargeable towards forming or repairing the said roads respectively, except such proportion of such statute duty as aforesaid, till such time as the same shall, by such justices in their special sessions, be declared to be fully and sufficiently formed, completed, and repaired; from which time, and for ever thereafter, the same shall be supported and kept in repair by such persons and in like manner as the other public roads within such parish, township, or place are by law to be amended and kept in repair.

*Commissioners shall appoint Private Roads, &c.*

X. And be it further enacted, That such commissioner or commissioners shall and he or they is and are hereby empowered and required to set out and appoint such private roads, bridleways, footways, ditches, drains, watercourses, watering places, quarries, bridges, gates, stiles, mounds, fences,

banks, bounds, and land marks in, over, upon, and through, or by the sides of the allotments to be made and set out in pursuance of such Act, as he or they shall think requisite, giving such notice and subject to such examination as to any private roads or paths as are above required in the case of public roads; and the same shall be made, and at all times for ever thereafter be supported and kept in repair, by and at the expense of the owners and proprietors for the time being of the lands and grounds directed to be divided and inclosed, in such shares and proportions as the commissioner or commissioners shall in and by his or their award order and direct.

*The Grass and Herbage on Roads shall belong to the Proprietors of the Lands adjoining on either side; and all Roads which shall not be set out shall be allotted and inclosed. No Turnpike Road shall be altered without the Consent of the Trustees.*

XI. And be it further enacted, That after such public and private roads and ways shall have been set out and made, the grass and herbage arising thereon shall for ever belong to and be the sole right of the proprietors of the lands and grounds which shall next adjoin the said roads and ways on either side thereof, as far as the crown of the road; and all roads, ways, and paths over, through, and upon such lands and grounds, which shall not be set out as aforesaid, shall be for ever stopped up and extinguished, and shall be deemed and taken as part of the lands and grounds to be divided, allotted, and inclosed, and shall be divided, allotted, and inclosed accordingly: Provided that nothing herein contained shall extend or be construed to extend to give such commissioner or commissioners any power or authority to divert, change, or alter any turnpike road that shall or may lead over any such lands and grounds, unless the consent of the majority of the trustees of such turnpike roads, assembled at some public meeting called for that purpose on ten days notice, be first had and obtained.

*Commissioners in making Allotments to have Regard to the Situation of Houses as well as the Quantity and Quality of Land, as far as may be consistent with general Convenience.*

XII. And be it further enacted, That such commissioner or commissioners, in making the several allotments directed by any such Act, shall have due regard as well to the situation of the respective houses or homesteads of the proprietors as to the quantity and quality of the lands and grounds to be allotted to them respectively, so far as may be consistent with the general convenience of the said proprietors; and that such commissioner or commissioners, in making the said allotments, shall have particular regard to the convenience of the owners or proprietors of the smallest estates in the lands and grounds directed to be allotted and exchanged.

*Commissioners may direct small Allotments to be laid together and ring-fenced, and stocked and depastured in common by the Proprietors.*

XIII. And whereas the proprietors and persons interested in open common fields, meadows, pastures, commons, and waste lands directed to be divided and allotted, whose allotments thereof will be small and expensive to inclose, may be desirous of stocking and depasturing their allotments in common, and of sharing such produce as may grow thereon, under proper regulations; be it therefore further enacted, That such commissioner or commissioners shall be and he or they is and are hereby fully authorized and empowered, on application of the

parties interested at their first or second meeting for receiving claims, and on an attentive view and full consideration of the premises, to award, order, and direct any such allotments to be laid together and ri.g-fenced, and to be stocked and depastured in common, and to make such orders and regulations for the equitable enjoyment thereof, and for the participation of any produce growing or to grow thereon, as such commissioner or commissioners may think beneficial and proper for the said several parties interested therein.

*Allotments to be in full Compensation for all Rights in the Lands, which shall cease on Notice from the Commissioners being affixed on the Door of the Parish Church.*

XIV. And be it further enacted, That the several shares of and in any lands or grounds which shall upon any division be assigned, set out, allotted, and applied unto and for the several persons who shall be entitled to the same, shall, when so allotted, be and be taken to be in full bar of and satisfaction and compensation for their several and respective lands, grounds, rights of common, and all other rights and properties whatsoever which they respectively had or were entitled to in and over the said lands and grounds immediately before the passing of any such Act; and that from and immediately after the making the said division and allotments, and the execution of the award of such commissioner or commissioners, or at any other time as such commissioner or commissioners shall, by writing under his or their hands to be affixed on the principal door of the church of the parish in which the lands and grounds shall be situate, direct or appoint, all rights of common, and all rights whatsoever by such Act intended to be extinguished, belonging to or claimed by any person or persons whomsoever, bodies politic or corporate, in, over, or upon such lands or grounds, shall cease, determine, and be for ever extinguished.

*Commissioners may exchange by Allotments, Messuages, Lands, &c. with the Consent of the Proprietors, or if belonging to Churches, &c., with the Consent of the Bishop and of the Patron.*

XV. And be it further enacted, That such commissioner or commissioners shall and he or they is and are hereby authorized to set out, allot, and award any messuages, buildings, lands, tenements, hereditaments, new allotments, or old inclosures, within such parish or manors, in lieu of or in exchange for any other messuages, buildings, lands, tenements, hereditaments, new allotments, or old inclosures, within the said parish or manors, or within any adjoining parish or place, so as that all such exchanges be made with the consent of the respective owners, proprietors, or other persons seised of the lands, hereditaments, and premises which shall respectively be so exchanged as aforesaid, or of the husbands, guardians, trustees, committees, or attorneys acting for or on behalf of such owners, proprietors, or other persons respectively who are under coverture, minors, lunatics, or beyond the seas, or under any other disability or incapacity of acting for themselves (such consent to be testified by writing under their respective hands,) and so that all such exchanges be ascertained, specified, and set forth in the award of such commissioner or commissioners; and so that all such exchanges of any lands, tenements, or hereditaments belonging to or held in right of any church, chapel, or ecclesiastical benefice, shall also be made with the like consent in writing of the bishop of the diocese, and of the patron of any church, chapel, or ecclesiastical benefice for the time being; and all such exchanges so made as

aforesaid shall be for ever good, valid, and effectual in the law to all intents and purposes whatsoever.

*Commissioners may make Allotments in Severalty to Joint Tenants or Tenants in Common.*

XVI. And whereas it may happen that some of the proprietors of messuages, cottages, tenements, or lands in any such parish or manor, and persons entitled to allotment or allotments to be made by virtue of any such Act, may be seised thereof or entitled thereto in joint tenancy, or as coparceners or tenants in common, and cannot, by reason of infancy, settlement, or absence beyond seas, make an effectual division thereof; be it therefore further enacted, That it shall be lawful for any such commissioner or commissioners, and he or they is and are hereby authorized and empowered, (upon the request in writing of such joint tenants, or coparceners, or tenants in common, or any or either of them, or of the husbands, guardians, trustees, committees, or attorneys of such as are under coverture, minors, lunatics, or under any other incapacity as aforesaid, or absence beyond seas,) to make partition and division of the messuages, cottages, tenements, lands, and allotment or allotments, to such of the said owners or proprietors who shall be entitled to the same as joint tenants, coparceners, or tenants in common, and to allot the same accordingly to such owners and proprietors in severalty; and from and immediately after the said allotments shall be so made and declared, the same shall be holden and enjoyed by the person or persons to whom the same shall be allotted in severalty in such and the same manner, and subject to such and the same uses, as the undivided parts or shares of such estates would have been held in case such partition and division had not been made.

*Persons to accept t' eir Allotments in a limited Time, or to forfeit their Rights.*

XVII. And be it further enacted, That all and every person or persons to whom any allotment or allotments shall be made by virtue of any such Act shall and he, she, or they is and are hereby required to accept his, her, and their respective allotments within the space of two calendar months next after the execution of the award directed to be made in and by such Act; and in case any person or persons shall neglect or refuse to accept of his, her, or their share or allotment within the time before mentioned, such person or persons so neglecting or refusing shall be totally excluded from having or receiving any estate or interest, or right of common whatsoever, in any part of the lands and grounds to be divided and inclosed by virtue of any such Act.

*Guardians, &c., may accept for incapacitated Persons, and Tenants for Life shall accept of Allotments. Nonacceptance of Guardians, &c., shall not prejudice the Rights of incapacitated Persons who shall accept in a limited Time after enabled so to do.*

XVIII. Provided always, and be it further enacted, That it shall and may be lawful for the respective guardians, husbands, trustees, committees, or attorneys of any person or persons being minors, femes covert, lunatics, beyond the seas, or otherwise incapable by law, to accept any such allotments as shall be made by virtue of any such Act to and for the use of such person or persons so incapacitated as aforesaid, and also that any person or persons entitled to any allotment or allotments as tenant or tenants for life or lives shall be, and he, she, and they is and are hereby respectively enabled and required to accept of and take such allotment or allotments respectively; and every such acceptance re-

spectively shall be and is hereby declared to be valid and effectual to all intents and purposes whatsoever: Provided further, That the nonclaim or nonacceptance of any such guardian, husband, trustee, committee, or attorney shall not exclude or in any way prejudice the right of any infant, feme covert, lunatic, or other person or persons being under any disability or incapacity as aforesaid, or absent beyond the seas, who shall claim or accept such share or allotment within twelve calendar months next after such disability or incapacity shall be removed, or of any person entitled as heir in remainder after the death of any person dying during such incapacity or disability who shall claim or accept the same within one year next after his, her, or their right, title, or interest shall have accrued, descended, or vested, or be known so to be.

*Before Execution of the Award, Allotments may be ditched and inclosed, with the Consent of the Commissioners.*

XIX. And be it further enacted, That after the allotments shall be set out by such commissioner or commissioners, and at any time before the execution of his or their award, it shall be lawful for any person or persons to whom any allotment or allotments shall be so made and staked or marked out, by and with the consent of such commissioner or commissioners in writing under his or their hands, to ditch, fence off, and inclose their respective allotments in such manner as such commissioner or commissioners shall so direct and appoint.

*Trees, &c., to be allotted with the Lands whereon they stand, the Parties paying to the Owners such Sums as the Commissioners shall direct; but in case of Neglect the Owners may cut them down and take them away.*

XX. And be it further enacted, That the timber trees and other trees, thorns, and bushes standing and growing upon any waste lands or other lands to be allotted by such act shall be allotted and go along with the lands whereon they respectively stand, and shall be deemed the property of the several persons to whom the same lands shall be respectively allotted, such persons paying to the owner or respective owners of the same trees such sums of money for the same, and at such time or times and place or places, as the said commissioner or commissioners shall by writing under his or their hand or hands direct; but if the said parties who are to make such respective payments shall neglect or refuse to make the same accordingly, then it shall be lawful to and for the respective parties who shall be entitled to have and receive such payments, to enter on the said lands, and cut down, take, and carry away to their own use the said trees, thorns, or bushes in respect of which the said payments were respectively to be made to them, at any reasonable time or times within one year next after such neglect or default, they doing as little damage on the said lands as may be.

*Where Money is to be paid for Lands, &c., and which ought to be laid out in other Purchases to be settled to the same Uses, the Commissioners may thereout defray a Proportion of the Expenses of passing the Act, and putting it in execution, &c., and of the Surplus amount to 200l. it shall, as soon as may be, be laid out in other Purchases, and in the meantime be paid into the Bank, and applied under the Direction of the Court of Chancery.*

XXI. And be it further enacted, That whenever any sum of money is, under the provision of this Act, or any such Bill, to be paid for the purchase or exchange of any lands, tenements, or hereditaments,

or of any timber or wood growing thereon, and which sum of money ought to be laid out in the purchase of other lands, tenements, or hereditaments, to be settled to the same uses, it shall and may be lawful to and for such commissioner or commissioners out of such sum to defray such proportion of the expense of passing such Act, and of carrying the same into execution, as shall, if any, be charged upon any of the lands, tenements, or hereditaments of the person or persons, body politic or corporate, trustees, or feoffees in possession of the lands, tenements, or hereditaments so sold or exchanged, or on which such timber or wood actually grew, and also the expense of any permanent improvement, such as building, subdividing, draining, or planting, and the like, which shall in the judgment of such commissioner or commissioners be proper to be made, and shall be made under his or their direction, upon any lands to be by virtue of such Act allotted to such person or persons, body politic or corporate, trustees or feoffees respectively; and in case the surplus of such money shall amount to the sum of two hundred pounds, then the same shall, with all convenient speed, be invested in the purchase of any lands or hereditaments, which shall be conveyed and settled upon and subject to the like uses, trusts, and limitations as such lands so sold or exchanged, or the lands on which such timber grew, were settled, limited, or assured; and in the meantime, and until such purchase can be made, such money shall be paid into the Bank of England in the name and with the privity of the accountant general of the high court of chancery, to be placed to his account there *ex parte* the said commissioner or commissioners, without fee or reward; to the intent that such money shall be applied, under the direction and with the approbation of the said court, to be signified by an order made upon a petition to be preferred in a summary way by the person or persons who would have been entitled to such lands, tenements, and hereditaments, or timber respectively, either in or towards the redemption or purchase of land tax, or towards the discharge of any debts or incumbrances, affecting the lands or hereditaments so purchased or exchanged, or on which such timber grew; or until the same shall, upon the like application, in a summary way, be laid out by order of the said court in the purchase of other lands or hereditaments, to be settled to the like uses; and in the meantime, and until order can be made, such money may, by order of the said court, be laid out in some of the public funds, or on government or real securities, and the dividends or interest arising therefrom shall, by order of the said court, be paid to such person or persons as would for the time being be entitled to the rents and profits of such lands, tenements, and hereditaments so to be purchased, conveyed, and settled.

*If such Money be less than 200l. and upwards of 20l. it shall, at the Option of the Person entitled to the Rents of the Lands, be paid into the Bank, or to Two Trustees to be approved of by the Commissioners, to be applied as before directed;*

XXII. Provided always, and be it further enacted, That if any such money shall be less than the sum of two hundred pounds, and shall exceed the sum of twenty pounds, then and in such case the same shall, at the option of the person or persons for the time being entitled to the rents and profits of the lands or hereditaments so purchased, or of his, her, or their guardian or guardians, committee, or committees, in case of infancy or lunacy, to be signified in writing under their respective hands, to

be paid into the bank in the name and with the privy of the said accountant general of the high court of chancery, and be placed to his account as aforesaid, in order to be applied in the manner before directed; or otherwise the same shall be paid at the like option to two trustees, to be nominated by the person or persons making such option, and approved of by the commissioner or commissioners (such nomination and approbation to be signified in writing under the hands of the nominating and approving parties), in order that such principal money and the dividends arising thereon may be applied in manner herein-before directed, so far as the case be applicable, without obtaining or being required to obtain the direction or approbation of the said court of chancery.

*And if less than 20l. it shall be applied to the Use of the Person entitled to the Rents of the Lands, as the Commissioners shall think fit.*

XXIII. Provided also, and be it further enacted, That where such money shall be less than twenty pounds, then and in such case the same shall be applied to the use of the person or persons who would for the time being have been entitled to the rents and profits of the lands or hereditaments so purchased, in such manner as the said commissioner or commissioners shall think fit, or in case of infancy or lunacy, then to his, her, or their guardian or guardians, committee or committees, to and for the use and benefit of such person or persons so entitled respectively.

*If any person does not accept, inclose, and fence his Allotment as the Commissioners shall direct, they may cause it to be inclosed and fenced and let, and receive the Rents until the expenses are satisfied, or they may charge them upon the Proprietor.*

XXIV. And be it further enacted, That if any person to whom any allotment or allotments shall be made, or any guardian, husband, trustees, feoffees, committees, or attorney of any infant, feme covert, charity or charities, lunatic, idiot, person or persons beyond the seas, or otherwise incapable of acting respectively, or any tenant in tail or for life, or trustee or trustees for any settlement, or any mortgagee or mortgagees, or other creditor in possession, shall neglect or refuse to accept, inclose, and fence his, her, or their allotment or allotments within such time or times as such commissioner or commissioners, by any writing as aforesaid, or by his or their award, shall order or direct, it shall be lawful for such commissioner or commissioners to cause such allotment or allotments to be inclosed and fenced, and to let the same to any person or persons he or they may think proper, and to receive the rents and profits thereof until the expenses attending the inclosure and fencing thereof are paid and satisfied, or to charge such expenses upon the proprietor or proprietors of the same allotment or allotments, and by any such writing as aforesaid, or by his or their said award, to appoint to whom and at what time or times the same shall be paid, subject to the same mode, and with the like powers of recovery thereof, as may be provided respecting the other expenses of passing any such Act, and carrying the same into execution, or otherwise directed by any such Act.

*Within Seven Years after fencing of Allotments, Fences may be erected on the outside of the Ditches, and the Materials carried away by the Proprietors.*

XXV. And be it further enacted, that it shall be lawful for the several proprietors of the allotments

to be made in pursuance of any such Act, their agents or workmen, at any seasonable time or times, within the space of seven years next after the fencing of any allotment or allotments, to set up and erect posts and rails, or other dead fences, on the outside of the ditches bounding their respective allotments, not exceeding three feet from such ditches, for the preservation of their quickest hedges, and at any seasonable time or times before the expiration of the said term to take and carry away the materials of such outside fences when they shall think proper.

*No Fences or Hedges standing when any Act is passed shall be destroyed till the Execution of the Award, without Consent of the Commissioners, and if assigned by them as a Boundary or Division Fence, they shall be left uncut, the Persons to whom the Allotments shall belong making Compensation to the former Owners.*

XXVI. And be it further enacted, that no fences or hedges which at the time of the passing of any such Act shall be standing or growing in or upon any of the lands directed to be divided and inclosed shall be cut down or destroyed by the owners and proprietors thereof, after the passing of such Act, until the execution of the award, without the consent of such commissioner or commissioners first had and obtained in writing for that purpose; and if any such fences or hedges shall be assigned or approved by such commissioner or commissioners as and for a boundary fence, or as and for a subdivision fence to and for any of the allotments to be made in pursuance of such Act, all such fences and hedges shall be left uncut for the benefit of the person or persons to whom such allotment or allotments shall belong; and he, she, or they shall make such compensation in money to the former owners and proprietors thereof as such commissioner or commissioners shall, by writing under his or their hand or hands, in that behalf order and appoint; subject to the same mode, and with the like powers of recovery thereof, as may in such Act be provided respecting the other expenses of passing any such Act, and carrying the same into execution.

*Where the Boundary of any Common Fields or inclosed Grounds shall be fenced by any Mound, &c., the Proprietors of the adjoining Allotments shall not be compelled to fence them next such Common Fields and inclosed Grounds, and such Boundaries shall be maintained by the respective Proprietors; the Expenses of which the Commissioners may apportion.*

XXVII. Provided always, and be it further enacted, that no proprietors whose allotments or shares shall, upon any such inclosure, lie and be situated next and adjoining to any common fields or inclosed grounds the boundary of which shall be fenced by any mound, fence, brook, or rivulet, shall be compelled to make or erect any hedges, ditches, or fences next adjoining to any such common fields or inclosed grounds, for inclosing such their allotments or shares; but that the whole mound, fence, brook, or rivulet, or other sufficient fences which divide any such common fields or inclosed grounds from such allotments, shall for ever be and remain a boundary fence for the purpose of such division, and shall from time to time be maintained, kept, cleansed, scoured, and repaired by the respective proprietors thereof in the same manner as before the passing of this Act, or in such other manner as such commissioner or commissioners shall order and direct: Provided nevertheless, that in case it shall happen that some of the proprietors shall have a greater proportion of fences to make and maintain upon any of the lands directed to be divided and inclosed, than in

the judgment of such commissioner or commissioners the allotments of such proprietors ought to be charged with, it shall be lawful for such commissioner or commissioners, where he or they shall judge it proper, to ascertain and appoint such sum of money to be paid to every such proprietor towards making and maintaining such fences, by such other of the proprietors who may have a less proportion of fencing, according to the value and quantity of the lands to be allotted to them, and to grant such other relief in respect thereof, out of the money to be raised for defraying the expences of carrying such Act into execution, as he or they shall think reasonable, and in case any such money shall be so directed to be raised, in order that the said boundary fences may be brought as near as may be to a just and equal proportion.

*If any Person shall destroy or damage any Fence, &c. put up under the Authority of any Act, he shall forfeit 5*l.*, and the Proprietor of the Lands, &c. may give Evidence.*

XXVIII. And be it further enacted, That in case any person or persons shall wilfully and unlawfully break down, destroy, carry away, or damage any fence, stile, post, rail, gate, bridge, or tunnel which may be put up or placed under the authority and for the purposes of any such Act, every person so offending and being thereof convicted before any justice of the peace for the county in which the lands or grounds to be inclosed shall be situate, on confession or on proof of the offence by oath of one or more credible witness or witnesses (which oath the said justice is hereby authorized to administer), shall for every such offence forfeit and pay any sum not exceeding five pounds; and every person shall be allowed to give evidence of such offence, notwithstanding he may be a proprietor or occupier of lands within or an inhabitant of such parish, and notwithstanding he may be the owner of any such fence, stile, post, rail, gate, bridge, or tunnel: to be recovered as hereinafter provided.

*If it shall be provided by any Act that the Expenses of obtaining and carrying it into execution shall be paid by the Proprietors, and they neglect so to do, the Commissioners may cause the same to be levied by Distress, or may take Possession of the Allotments, and receive the Rents till satisfied.*

XXIX. And whereas it may often be provided by such Act that the expences of obtaining the same, and also the expences of carrying the same into execution, shall be paid in proportion by the proprietors of lands or grounds to whom any allotments shall be made; be it further enacted, that in such case, when and so often as any such person or persons, except the persons thereby exempted from payment of any such charges and expences, shall refuse or neglect to pay his, her, or their proportion of the charges and expences, or shall refuse or neglect to pay the expences attending the inclosing and fencing of any such allotments as upon the neglect or refusal of the proprietors shall be inclosed and fenced by such commissioner or commissioners as hereinafter mentioned, at the respective days and times to be appointed for payment of such charges and expences, it shall be lawful for such commissioner or commissioners, by any warrant or warrants under his or their hands and seals, directed to any person or persons whomsoever, to cause the said costs, charges, and expences, and sum or sums of money respectively, to be levied by distress and sale of the goods and chattels of the person or persons so making default in payment as aforesaid, his, her, or their husbands, guardians,

trustees, committees, or attornies, wheresoever the same shall be found, rendering the overplus (if any) on demand, to the owner or owners of such goods and chattels, the reasonable charges of such warrant, distress, and sale being first deducted, together with the interest, after the rate of five pounds *per centum per annum*, to be computed on such share or shares, proportion or proportions, from the time the same shall be directed to be paid by such commissioner or commissioners as aforesaid; or otherwise it shall be lawful for such commissioner or commissioners, or any person or persons authorized by him or them, to enter upon and take possession of the premises so to be allotted to such person or persons refusing or neglecting to pay as aforesaid, and to receive and take the rents and profits thereof, until thereby, therewith, or otherwise, the share or shares, proportion or proportions, and the said costs and charges so ordered and directed by such commissioner or commissioners to be paid by such person or persons as aforesaid, and all interest on such share or shares, proportion or proportions, to be computed from the time the same shall by such commissioner or commissioners be directed to be paid as aforesaid, and also all costs, charges, and expences occasioned by or attending such entry upon and perception of the rents and profits of the said premises, shall be fully paid and satisfied.

*Husbands, &c. may charge Allotments with such Sums as the Commissioners shall adjudge necessary for defraying the aforesaid Expences; and if Persons in Possession liable to a Share thereof, or enabled to charge the Lands with the same, shall advance the Money, the Commissioners may mortgage the Lands to them for Reimbursement.*

XXX. And be it further enacted, That in such case as last aforesaid, it shall be lawful for the husbands, guardians, trustees, committees, or attornies of any of the owners or proprietors of such allotment or exchanged lands, being under coverture, minors, lunatics, beyond the seas, or under any other disability, and for any of the said owners or proprietors being tenants in tail, or for life of lives, or years determinable on a life or lives, or on any other contingency, or otherwise interested as aforesaid (except the rector or vicar of such parish), to charge such allotments or exchanged lands and premises with such sum or sums of money as such commissioner or commissioners shall by his or their award, or by writing under his or their hands, either before or after the execution of such award, adjudge necessary to pay and defray the said respective shares of the charges and expences incident to and attending the obtaining of such Act, and carrying the same into execution, and of charging the said lands as aforesaid, so that the same shall not exceed five pounds for every acre of such allotments or exchanged lands, and to grant, mortgage, surrender, lease, or demise, or otherwise subject the lands, tenements, and hereditaments so to be charged, unto such person or persons who shall advance and lend the same respectively, his, her, or their executors, administrators, and assigns, for any term or number of years; or in case any person in possession, who shall or may be liable to and charged with a share of the expences as aforesaid, or enabled by this or any such Act to charge such lands and grounds with the same, shall choose to advance, pay, and discharge such sum or sums of money, then it shall be lawful for the said commissioner or commissioners, by any deed or writing under his or their hands and seals, to be attested by two or more credible witnesses, in like manner to grant, mortgage, surrender, lease,

demise, or otherwise subject the said lands, tenements, and hereditaments to such person or persons respectively paying and discharging the same, his, her, or their executors, administrators, and assigns, for any term or number of years, to and for the payment of such sum and sums of money so advanced, paid, and discharged by him or them, with interest for the same, to commence on the termination of his, her, or their right in the premises, so that every such grant, mortgage, surrender, lease, or demise be made with a proviso or condition to cease and be void, or with an express trust to be surrendered or re-assigned, when such sum or sums of money thereby to be secured shall be fully paid and satisfied, and also with a covenant to pay and keep down the interest, so that no person or persons afterwards becoming possessed or entitled to any such lands, tenements, or hereditaments, shall be liable to pay any further or larger arrear of interest than for six calendar months preceding the time when the title to such possession shall have commenced; and that every such charge, grant, mortgage, surrender, lease, or demise shall be good, valid, and effectual in the law for the purposes thereby intended.

*Commissioners may deduct from Allotments for Charity or School Lands what shall be deemed equal to the proportionable Share of the Expenses of passing and executing any Act, and allot the same to such Persons as will undertake to pay it.*

XXXI. And whereas in such cases as aforesaid, where provision may be made in any such act for charging the expences of passing such Act, or of executing the powers therein contained, or of fencing the respective allotments on the several proprietors thereof, it may be more convenient for the feoffees or trustees of any charity lands or school lands to have lands deducted from the respective allotments to be made for such charity lands or school lands, for paying the proportionable share in respect of such allotments of such expences respectively, than to raise money on mortgage for those purposes; be it therefore further enacted, That it shall be lawful for any such commissioner or commissioners, if he or they shall judge it right or expedient, to deduct from the respective allotments to be made to such feoffees or trustees as aforesaid so much land as shall in the judgment of such commissioner or commissioners be equal in value to their respective proportions of the said expences, and to allot, assign, and award the same to such person or persons as such commissioner or commissioners shall think proper, and who will undertake to pay and defray, and shall pay and defray, all such expences.

*If it shall be provided by any Act that the Expenses of obtaining and carrying it into Execution shall be paid by Sale of Part of the Lands, the Commissioners shall set out and sell such Part as they think will raise a sufficient Sum, and the Purchasers shall immediately deposit a Part of the Purchase-Money, which shall be forfeited if the Remainder be not duly paid.*

XXXII. And be it further enacted, That in case it shall be provided by any such Act that the expences attending the same shall be paid by sale of any part of the land so to be inclosed, the said commissioner or commissioners shall mark and set out such part or parts of the said waste or commonable lands as in his or their opinion will by sale thereof raise a sum of money sufficient to pay and discharge all such charges and expences as may by any such Act be directed to be paid and discharged out of the same; and the said commissioner or commissioners shall sell such part or parts of the said lands to any

person or persons, for the best price or prices that can be gotten for the same, by private contract, or by public auction or auctions to be holden for that purpose, of which six weeks previous notice shall be given in such manner as shall by any such Act be directed with respect to the other notices thereby required; and the person or persons so purchasing the same shall immediately pay (by way of deposit) into the hands of the said commissioner or commissioners, or such person or persons as he or they shall direct and appoint, one-tenth part of his, her, or their purchase-money, and pay the remainder thereof within three calendar months next after, or at such other time as the said commissioner or commissioners shall appoint, and in default thereof the money so deposited shall be forfeited, and shall be applied in carrying such Act into execution; and the said allotment or allotments for which the whole of such purchase-money shall not have been so paid, or for which there shall be no bidding at such auction, shall be again put up to sale, and sold in manner aforesaid for the best price or prices that can be gotten for the same, or be sold by the said commissioner or commissioners by private contract for any sum or sums not less than the remaining nine-tenths of the price or respective prices for which the same was or were respectively before sold, or the amount of one bidding above the sum or respective sums at which the same was or were respectively put up in the said former auction; and every allotment for which the full purchase-money shall be paid shall immediately thereupon be absolutely discharged of and from all common and other right thereon or therein, and be vested in fee-simple in, and be inclosed and thenceforth held in severalty by, such purchaser or purchasers thereof respectively, as his, her, or their private and absolute property, and shall be allotted accordingly by the said commissioner or commissioners; and the said purchase-money shall be applied in defraying such charges and expences as may be in any such Act directed to be paid and discharged by the sale of such land.

*Commissioners may summon Witnesses, who shall be subject to Penalty for Neglect.*

XXXIII. And for the better enabling such commissioner or commissioners to determine the several matters and things by this or any other such Act referred to his or their determination, be it enacted, That it shall be lawful to and for the said commissioner or commissioners from time to time, as he or they shall see occasion, by any writing or writings under his or their hand or hands, to summon and require any person or persons to appear before them, at any time and place in such writing to be appointed, to testify the truth touching the matter in dispute between any proprietors or interested persons, or otherwise relating to the execution of the powers given by this or any such Act, and to cause a copy of such writing to be served on such person or persons required to give evidence, or to be left at his, her, or their usual or last place of abode; and every person or persons so summoned, who shall not appear before the said commissioner or commissioners pursuant to such summons (without assigning some reasonable excuse for not appearing,) or appearing shall refuse to be sworn or examined on oath or affirmation, which oath or affirmation the said commissioner or commissioners is and are hereby empowered and required to administer, (such person or persons having been paid or tendered to him, her, or them the reasonable charges of his, her, or their attendance,) and being

thereof convicted before one of his Majesty's justices of the peace of the county or district in which such lands are situated, upon information thereof upon oath made before any such justice, shall for every such neglect or refusal forfeit and pay such sum of money, not exceeding ten pounds nor less than five pounds, as such justice or justices shall think fit and order.

*No Witness shall be obliged to travel beyond a certain Distance.*

XXXIV. Provided always, and be it further enacted, that no witness summoned to attend such commissioner or commissioners shall be obliged to travel above eight miles from the boundary of the parish, manor, or district by any such Act intended to be inclosed.

*Commissioners shall draw up an Award, containing sundry Particulars, which shall be read and executed at a Meeting of the Proprietors, and proclaimed the next Sunday in the Parish Church, and then considered as complete.—Award to be enrolled in a Court of Record at Westminster, or with the Clerk of the Peace of the County, and may be inspected, and Copies obtained for a certain Sum.—Award and Copies to be legal Evidence, and Award to be binding on all Parties interested.—Commissioners may form Maps of the Grounds, which shall be annexed to the Award, and deemed Part thereof.*

XXXV. And be it further enacted, that as soon as conveniently may be after the division and allotment of the said lands and grounds shall be finished, pursuant to the purport and directions of this or any such Act, the said commissioner or commissioners shall form and draw up, or cause to be formed and drawn up, an award in writing, which shall express the quantity of acres, roods, and perches, in statute measure, contained in the said lands and grounds, and the quantity of each and every part and parcel thereof which shall be so allotted, assigned, or exchanged, and the situations and descriptions of the same respectively, and shall also contain a description of the roads, ways, footpaths, watercourses, watering places, quarries, bridges, fences and land marks set out and appointed by the said commissioner or commissioners respectively as aforesaid, and all such other rules, orders, agreements, regulations, directions, and determinations as the said commissioner or commissioners shall think necessary, proper, or beneficial to the parties; which said award shall be fairly engrossed or written on parchment, and shall be read and executed by the commissioner or commissioners in the presence of the proprietors who may attend at a special general meeting called for that purpose, of which ten days notice at least shall be given in some paper to be named in such Act, and circulating in the county; which execution of such award shall be proclaimed the next Sunday in the church of the parish in which such lands shall be, from the time of which proclamation only, and not before, such award shall be considered as complete; and shall, within twelve calendar months after the same shall be so signed and sealed, or so soon as conveniently may be, be enrolled in one of his Majesty's courts of record at Westminster, or with the clerk of the peace for the county in which such lands shall be situated, to the end that recourse may be had thereto by any person or persons interested therein, for the inspection and perusal whereof no more than one shilling shall be paid; and a copy of the said award, or any part thereof, signed by the proper officer of the court wherein the same shall

be enrolled, or by the clerk of the peace for such county, or his deputy, purporting the same to be a true copy, shall from time to time be made and delivered by such officer or clerk of the peace for the time being as aforesaid to any person requesting the same, for which no more shall be paid than two-pence for every sheet of seventy-two words; and the said award, and each copy of the same, or of any part thereof, signed as aforesaid, shall at all times be admitted and allowed in all courts whatever as legal evidence; and the said award or instrument, and the several allotments, partitions, regulations, agreements, exchanges, orders, directions, determinations, and all other matters and things therein mentioned and contained, shall to all intents and purposes be binding and conclusive, except where some provision to the contrary is herein or shall be by any such Act contained, unto and upon the said proprietors, and all parties and persons concerned or interested in the same, or in any of the lands, grounds, or premises aforesaid; and also that the said respective commissioners, if they think it necessary, shall form or draw, or cause to be formed and drawn, on parchment or vellum, such maps or plans of the said lands and grounds, the better to describe the several new allotments or divisions to be made, and premises that shall be exchanged by virtue of this Act, and which shall express the quantity of each allotment in acres, roods, and perches, together with the names of the respective proprietors at the time of such division and allotment; which said maps and plans shall be annexed to and enrolled with the said respective award, and shall be deemed and construed in every respect as and for part of the said award.

*Commissioners shall keep an Account of all Monies received and disbursed, which may be inspected at their Clerk's Office, gratis.—Penalty for not keeping such Account, or for refusing the Inspection thereof.*

XXXVI. And be it further enacted, that such commissioner or commissioners shall, and he or they is and are hereby required to enter in a book to be provided for that purpose, a particular account of all sums of money whatever received from the proprietors or others during the progress of the inclosure, and also of all the charges, expences, and disbursements which shall accrue or be made by virtue of any such Act, and in carrying the same into execution; which book of accounts shall be kept at the office of the clerk, open at all reasonable times during the progress of the inclosure, and till all the accounts are finally settled, for the inspection of any of the proprietors, without fee or reward; and in case any such commissioner or commissioner, or his or their clerk, shall neglect to provide and keep such book of accounts as aforesaid, or refuse the inspection thereof to any of the proprietors at reasonable times in manner before mentioned, and shall be convicted thereof, upon the oath of one or more credible witness or witnesses not interested in the intended division and inclosure, before any justice of the peace of the county in which the lands or grounds to be inclosed shall be situate, or of such other county or place where such commissioner or clerk so offending shall be or reside, every such commissioner or clerk so causing such neglect or refusal, and convicted as aforesaid, shall forfeit and pay for every such offence any sum not exceeding ten pounds nor less than five pounds, to be levied, recovered, and applied in the same manner as other penalties are by this Act directed to be levied, recovered, and applied.



*Monies raised under any Act shall be deposited as may be approved by a Majority in value of the Proprietors, and not issued without an Order from the Commissioners.*

XXXVII. And be it further enacted, that all monies to be raised under and by virtue of the powers contained in any such Act shall from time to time, as often as the same shall amount to the sum of fifty pounds, be paid to and deposited in the hands of some banker, or such person or persons as shall be approved by a majority in value of the proprietors who may be present at the first meeting of such commissioner or commissioners, and in the notice of which meeting shall be expressed the intention of then appointing such banker, or such other person or persons; and no such monies deposited or paid into the hands of such banker or other person or persons to be appointed as aforesaid, shall be issued or paid by him or them without an order in writing under the hands of such commissioner or commissioners, specifying the person or persons to whom the same are respectively payable, and the service or consideration for which the same are due; and the balance, if any, upon the final settlement of accounts, shall be immediately repaid to the land owners, in proportion to the sums respectively paid by them.

*The Rector or Vicar, with the Consent of the Bishop of the Diocese and of the Patron of the Living, may lease Allotments for 21 Years, upon certain Conditions.*

XXXVIII. And be it further enacted, that it shall be lawful for the rector or vicar for the time being of any parish wherein the lands and grounds intended to be inclosed shall be situate, by indenture or indentures under his hand and seal, with the consent and approbation of the bishop of the diocese, and of the patron of the said rectory or vicarage, to lease or demise all or any part or parts of the allotment or allotments to be set out and allotted to any such rector or vicar by virtue of any such Act, to any person or persons whomsoever, for any term not exceeding twenty-one years, to commence within twelve calendar months next after the executing the award; so that the rent or rents for the same shall be thereby reserved to the rector or vicar for the time being by four equal quarterly payments in every year; and so that there be thereby also reserved and made payable to such rector or vicar the best and most improved rent or rents that can be reasonably had or gotten for the same, without taking any fine, foregift, premium, sum of money, or other consideration, for the making or granting any such lease or demise; and so that no such lessee by any such lease or demise be made disposable for waste by any express words to be therein contained; and so that there be inserted in every such lease power of re-entry on nonpayment of the rent or rents to be thereby reserved within a reasonable time, to be therein limited, after the same shall become due; and so that a counterpart of such lease be duly executed by the lessee or lessees to whom such lease shall be so made as aforesaid; and every such lease shall be valid and effectual, any law or usage to the contrary notwithstanding.

*Recovery and Application of Penalties.*

XXXIX. And be it further enacted, that all penalties and forfeitures imposed by this or any such Act, or which shall be imposed by such commissioner or commissioners under or by virtue of the authority of this or any such Act, shall be levied

and recovered before any one justice of the peace for the county in which the lands or grounds to be inclosed shall be situate, and residing near any such parish, and not interested in the matter in question; for which purpose it shall be lawful for any such justice of the peace, upon complaint made to him, to summon the party accused and the witnesses on both sides, and upon the appearance or contempt of the party accused, to examine such witnesses upon oath (which oath any such justice is hereby empowered to administer,) and upon such evidence to give judgment accordingly, and to condemn the party accused (proof of the accusation being made by one or more witness or witnesses as aforesaid), in such penalties and forfeitures as the offenders shall have incurred, and to levy such penalties and forfeitures by distress and sale of the offender's goods and chattels, together with reasonable costs; all which penalties and forfeitures, the application whereof is not particularly directed by any such Act or this Act, shall, when and so soon as the same shall be levied, be paid and applied to and for such uses, intents, or purposes as such commissioner or commissioners, in and by any writing or writings under his or their hands, or in and by his or their award, shall order, direct, or appoint.

*Saving of the Rights of Lords of Manors.*

XL. And be it further enacted and declared, that nothing in such Act contained shall lessen, prejudice, or defeat the right, title, or interest of any lord or lady of any manor or lordship, or reputed manor or lordship, within the jurisdiction or limits whereof the lands and grounds thereby directed to be divided and allotted are situate, lying, and being, of, in, or to the seigniories, rights, and royalties incident or belonging to such manor or lordship, or reputed manor or lordship, or to the lord or lady thereof, or to any person or persons claiming under him or her; but the same (other than and except the interest and other property as is or are meant or intended to be barred by such Act) shall remain in as full, ample, and beneficial manner, to all intents and purposes, as he or she might or ought to have held or enjoyed such rights before the passing of such Act, or in case the same had never been made.

*General saving.*

XLI. Saving always to the King's most Excellent Majesty, his heirs and successors, and to all and every other person and persons, bodies politic and corporate, and his, her, and their heirs, successors, executors, and administrators, all such estate, right, title, and interest (other than and except such as are hereby intended to be barred, destroyed, or extinguished,) as they, every or any of them, had or enjoyed of, in, to, or out of, or in respect of the said lands, grounds, and premises so directed to be divided, allotted, and inclosed, or exchanged as aforesaid, before the passing of such Act, or could or might have had or enjoyed in case the same had never been made.

*Two Justices may take Affidavits of the Notices required having been given, &c., in the Forms in the Schedule, without Stamps.*

XLII. And be it further enacted, That it shall and may be lawful for any two or more justices of the peace to take affidavits on oath or affirmation (which oath or affirmation such justices are hereby authorized and empowered to administer) of the notices required for such bills having been given, of the consents of the parties interested therein, of the allegations contained in the preambles of such bills,

and of the quantity of the land to be inclosed ; and that such affidavits shall respectively be in the forms contained in the schedule hereunto annexed, as near as the circumstances of the case will admit ; and that such affidavits shall not be subject or liable to any stamp duties whatsoever.

*Persons forswearing themselves to be deemed guilty of Perjury.*

XLIII. And be it further enacted, That if any person or persons shall in any examination, affidavit, deposition, or affirmation to be had or taken in pursuance of this Act before such justice or justices, or such commissioner or commissioners, knowingly and wilfully swear or affirm any matter or thing which shall be false or untrue, every such person so offending shall on conviction thereof be deemed guilty of perjury, and shall suffer the like pains and penalties as persons guilty of wilful and corrupt perjury are now subject and liable to.

*Powers of this Act to be binding only as far as not otherwise provided in any future Act.*

XLIV. Provided always, and be it enacted, That all and every the powers, authorities, directions, and provisions in this Act contained shall be only so far effective and binding in each particular case as they or any of them shall not be otherwise provided and enacted in any such Act hereafter to be passed as aforesaid.

SCHEDULE TO WHICH THE ACT REFERS.

(A.)

FORM OF AFFIDAVIT OF NOTICES.

A. B. of maketh oath and saith [or, being one of the People called Quakers, upon his solemn affirmation saith], that he did see a copy of the notice hereunto annexed affixed on the church door of the parish of in the County of [or on the several church doors of the respective parishes of in the County of or in the several counties of and

] on the several Sundays hereinafter mentioned ; *videlicet*, [specifying the days on which the notices were affixed.]

Signed A. B.

Sworn [or solemnly affirmed] before us, two of his Majesty's justices of the peace acting in and for the and subscribed in our presence, by the above-named A. B. this day of in the year As witness our hands and seals.

(B.)

FORM OF AFFIDAVIT OF CONSENT.

A. B. of maketh oath and saith, [or, being one of the People called Quakers, upon his or her solemn affirmation saith,] that he [or she] believes himself [or herself] to be interested in the proposed inclosure of the in the [here describe the Place, whether Parish, Hamlet, or Place.] in the county of by virtue of [here set forth the Interest of the Deponent]; [or

that he [or she] believes that C. D. of

for whom he [or she] is guardian [et cetera, as the case may be] is interested, et cetera ; and that he [or she] hath seen a copy of an Act [here set forth the title of this Act], and also a copy of the bill intended to be presented to Parliament, and hath subscribed his [or her] name, or hath set his [or her] mark to the same respectively, and doth consent to the said bill being passed into a law.

Signed or marked A. B.

Sworn [or solemnly affirmed] before us, two of his majesty's justices of the peace acting in and for the

and subscribed in our presence, by the above-mentioned A. B. this

day of in the year As witness our hands and seals.

The same form may be applied, *mutatis mutandis*, to the case of several persons whose interests are joint, or whose interests, though distinct, are of a similar nature.

(C.)

FORM OF AFFIDAVIT OF ALLEGATIONS OF THE BILL.

A. B. of maketh oath and saith, [or, being one of the People called Quakers, upon his or her solemn affirmation saith,] that [here set forth such of the several facts alleged in the preamble of the Bill as are within the knowledge of the witness,] or, that he [or she] is informed and verily believes that [here set forth such of the said facts as are within the belief of witness.]

Signed A. B.

Sworn [or solemnly affirmed] before us, two of his Majesty's justices of the peace acting in and for the

and subscribed in our presence, by the above-named A. B. this

day of in the year As witness our hands and seals.

(D.)

FORM OF AFFIDAVIT OF ADMEASUREMENT.

A. B. of maketh oath and saith, [or, being one of the People called Quakers, upon his solemn affirmation saith,] that he has surveyed and admeasured the several lands in the parish or hamlet of in the county of [or counties of ] described in the bill intended to be presented to Parliament, and signed by the deponent, by the name [or names] of and that the quantity of such lands amounts to and no more, according to such admeasurement, and the best of this deponent's judgment.

A. B.

Sworn [or solemnly affirmed] before us, two of his Majesty's justices of the peace acting in and for the

and subscribed in our presence, by the above-named A. B. this

day of in the year As witness our hands and seals.

# AN ACT

TO

## AMEND THE LAW RESPECTING THE INCLOSING OF OPEN FIELDS, PASTURES, MOORS, COMMONS, AND WASTE LANDS IN ENGLAND.

1 & 2 GEO. IV.

[19th April, 1821.]

*Landlords or persons acting under their Orders, may enter upon Land allotted, and seize and distrain for Rent, notwithstanding the Commissioners Award shall not be executed.*

Whereas great inconveniences have arisen to landlords and other persons, owners of allotments allotted and set out to them by the commissioner or commissioners under or by virtue of several Acts, already passed, for dividing, allotting, and inclosing of open and uninclosed fields, pastures, moors, commons, and waste lands in *England*, by reason that such landlords and other persons, owners of allotments as aforesaid, cannot, before the execution and perfecting of the award or awards by such Acts directed to be made by such commissioner or commissioners, distrain for the rent in arrear or unpaid for or in respect of such allotment or allotments, or support an action of trespass for any damage or injury done to such allotment or allotments, or an action of ejectment to recover the possession of such allotment or allotments, in consequence of the freehold or legal seisin thereof respectively not being vested in such landlords and other persons, owners of such allotment or allotments, by the award or awards of such commissioner or commissioners as aforesaid: for remedy whereof be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, That from and after the passing of this Act it shall and may be lawful to and for all and every person and persons to whom any allotment or allotments of land has or have been set out or allotted, or which shall or may hereafter be set out or allotted, and to whom the possession of such allotment or allotments hath been already given by virtue of any order or direction, orders or directions, or to whom the possession thereof shall hereafter be given by virtue of any order or direction, orders or directions in writing, in the form and specified in the schedule hereto annexed, and signed by the commissioner or commissioners acting under or by virtue of any Act or Acts of Parliament now or hereafter to be passed for dividing, allotting, and inclosing any open fields, pastures, commons, moors, and waste lands in *England*, and who shall have demised the same or any part thereof, to any tenant

or servant, or for their, his, or her bailiff or agent, bailiffs or agents, or any person or persons by them, him, or her authorized and employed for that purpose, to enter into and upon any such allotment or allotments, and to seize and distrain any goods, chattels, or effects which may be in or upon such allotment or allotments, or in or upon any other lands, tenements, or hereditaments held, occupied, or enjoyed by the tenant or occupier of such allotment or allotments along and together with any such allotment or allotments, for any rent that may be in arrear and unpaid for all or any part of such allotment or allotments, and either alone or together with any such allotment or allotments, and any other lands, tenements, and hereditaments, held, occupied, or enjoyed therewith, notwithstanding the award or awards of the commissioner or commissioners appointed in or named by or by virtue of any such Act or Acts so made and passed, or to be hereafter made and passed, shall not be executed and perfected by such commissioner or commissioners by virtue or in pursuance of any such Act or Acts of Parliament.

*Actions at Law may also be brought.*

II. And be it further enacted, that it shall and may be lawful to and for all and every person or persons to whom any such allotment or allotments is or are already set out or allotted, or which shall or may be hereafter set out or allotted; and to whom such possession as aforesaid hath been already given, by virtue of any order or direction, orders or directions, or the possession whereof shall hereafter be given to such person or persons by virtue of any order or direction, orders or directions in writing, in the form specified in the said schedule as aforesaid, and signed by such commissioner or commissioners as aforesaid, and to his, her, or their tenants, stewards, bailiffs, agents, or servants, to commence, prosecute, and maintain any action or suit at law for any injury or damage that may be done or committed by any person or persons whomsoever to the ground soil, or herbage of any of such allotment or allotments, or to the walls, hedges, fences, ditches, gates, posts, rails, stiles, cloughs, bridges, or tunnels already erected or to be erected in or upon any such allotment or allotment or allotments, and to bring, maintain,

and prosecute any action or actions of ejectment for recovering the possession of any such allotment or allotments, or any part or parts thereof, from any person or persons whomsoever, notwithstanding the award or awards of the commissioner or commissioners appointed in or named by or by virtue of any such Act or Acts now made and passed, or to be hereafter made and passed, shall not be executed and perfected by such commissioner or commissioners by virtue or in pursuance of any such Act or Acts of Parliament; any thing in any Act or Acts, or any construction of or implication from any Act or Acts, or any law, usage, or custom, to the contrary in anywise notwithstanding.

*Act not to affect Right of Persons to appeal against Award of Commissioners.*

III. Provided always, that nothing in this Act contained shall prevent or be construed to prevent or take away the right of any person or persons, bodies politic or corporate, and his, her, and their heirs, successors, and assigns, to appeal against the award or awards, order or directions of any such commissioner or commissioners, when made and executed, or the right of possession to any such allotment or allotments which may be affected by the judgement of the court or such appeal; or to prevent or obstruct, or in anywise lessen or prejudice, any alteration or alterations to be made, ordered, or directed by any such commissioner or commissioners as aforesaid for or in respect of any such allotment or allotments, in and by his or their award or awards, to be made and executed by virtue or in pursuance of any such Act or Acts of Parliament as aforesaid.

*Where Leases granted under 41 G. 3. c. 109. become void before the expiration of their Term, Incumbents may grant new Leases.*

IV. Provided always, and be it further enacted that whenever any lease or leases to be granted by any rector, vicar, or other incumbent, under the powers or provisions of an Act passed in the forty-first year of the reign of his late Majesty King George the Third, intituled *An Act for consolidating in one Act certain provisions usually inserted in Acts of Inclosure, and for facilitating the mode of proving the several facts usually required on the passing of such Acts*, shall by any means become forfeited or void, or be surrendered before the expiration, by effluxion of time, of the term or terms thereby granted, then and in such case, and as often as the same shall so happen, it shall and

may be lawful for the rector, vicar, or other incumbent for the time being of the same rectory, vicarage, or parish, by and with the previous consent of the ordinary and patron, to grant a new lease of the lands so demised for such term or terms of years as shall, at the time or times of such avoidance, be then to come and unexpired of the original term or terms granted by such original lease or leases, subject nevertheless to the provisions and conditions contained in such original lease or leases, and then remaining unperformed and capable of having effect.

*Powers of this Act only binding in Cases where not otherwise provided.*

V. Provided always, and be it enacted, that the powers, authorities, and provisions in this Act contained shall be only so far effective and binding in each particular case as they or any of them shall not be otherwise provided and enacted in any Act hereafter to be passed for dividing, allotting and inclosing any open fields, pastures, commons, moors, or waste lands in *England*.

#### SCHEDULE TO WHICH THE ACT REFERS.

I A. B. [or, in case of two or more commissioners, we, A. B., C. D., &c] the commissioner [or commissioners] named and appointed in and by an Act of Parliament lately made and passed, intituled *An Act [here insert the title of the Act by which the commissioner or commissioners is or are appointed,]* do hereby order and direct, permit and authorize T. F. or his [her or their] bailiff or agent, to take possession of all that allotment [here describe the allotment or allotments by metes and bounds] by me [or us] set out or allotted, and staked or marked out to and for him [or her or their, as the case may be] under and by virtue of the said Act, and to cultivate and manage, or to let and demise the same allotment, [or allotments] to any tenant or tenants as he [or as she or they, as the case may be,] shall think proper; but nevertheless subject and without prejudice to any such order or orders, direction or directions, as I [or we] may think proper and expedient to make in and by the award or awards to be hereafter executed by me [or us] so far as respects such allotment [or allotments] so set out and allotted, and staked or marked out to and for the said T. F. As witness my hand [or our hands,] this Day of

Witness, (Signed) A. B.

# AN ACT

TO

REMEDY CERTAIN DEFECTS AS TO THE RECOVERY OF RATES AND ASSESSMENTS MADE BY COMMISSIONERS AND OTHER PERSONS UNDER DIVERS INCLOSURE AND DRAINAGE ACTS AFTER THE EXECUTION OF THE FINAL AWARDS OF THE SAID COMMISSIONERS.

3 & 4 WILLIAM IV.

[24th July, 1833.]

*Mode of proceeding for Recovery of Rates or Assessments in Arrear where no Remedy hath been already given.—Limiting the Recovery to Six Years from Period of Rate becoming due.*

Whereas divers Acts of Parliament have from time to time been passed for the inclosure, drainage, and improvement of divers lands, commons, and waste grounds, wherein commissioners are empowered to set out and make private roads and drains, banks, bridges, sluices, and other works: And whereas it hath been discovered since the passing of the said Acts, that there are no powers therein for the recovery of the rates or assessments from time to time after the making of the respective final awards of the commissioners acting in execution of the said Acts, under or by virtue of the said Acts or the said awards, or under or by virtue of powers, authorities, or directions given or contained in the said Acts or Awards, for defraying the expences of repairing, superintending, or renewing the said roads, drains, banks, bridges, sluices, and other works, whereby great inconvenience and losses have been sustained for want of such powers: And whereas it is expedient that a summary mode of proceeding should be granted for the purpose of recovering and enforcing the payment of such rates or assessments; for remedy whereof, may it please your Majesty that it may be enacted; and be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, That in all cases where no such remedy shall have been given, and where any such rate or assessment, rates or assessments, already made or hereafter to be made, or any part thereof, and whether made at one time or at several times, shall have been or shall be in arrear and unpaid for the space of twenty-one days after a notice in writing requiring payment thereof shall have been personally served on or left at the place of abode of the person or persons, or one of the persons, by whom the said rate or assessment, rates or assessments, ought to be paid, or at the place of abode of the tenant or occupier of the lands or grounds in re-

spect of which the said rate or assessment, rates or assessments, is or are made, it shall and may be lawful for any two or more of his Majesty's justices of the peace acting for any county, riding, or division, in petty sessions assembled, (not interested in the matter in question,) and who are hereby required, upon complaint made to them by the person or persons, or any one of the persons, to whom for the time being the said rate or assessment or rates or assessments ought to be paid, or by the person or persons, or any one of the persons, who for the time being shall be duly appointed to make or collect such rate or assessment or rates or assessments, to summon the person or persons from whom any rate or assessment, rates or assessments shall be due, and the witnesses on both sides, and upon the appearance or contempt of the party or parties accused, or any of them, to examine such party or parties and witness or witnesses as may be then present, upon oath (which oath such justices as are hereby authorized and empowered to administer), and to give judgment accordingly upon the matters and things brought before them, and by warrant or warrants under the hands and seals of such justices to levy the amount of all and every such rate or assessment, rates or assessments, so in arrear and unpaid, by distress and sale of the goods and chattels of the person or persons so making default in payment of such rate or assessment, rates or assessments, where-soever the same can or may be found, or of the occupier or occupiers of any lands or grounds belonging to such person or persons in respect of which such rate or assessment, rates or assessments, is or are made, which may be found on such lands or grounds, together with the reasonable costs and charges of such proceeding, rendering the overplus arising by such sale (if any), after deducting the sum or sums to be levied by such distress and sale, and the charges of taking, keeping, appraising, and selling the said distress, to the owner thereof (on demand); and the respective tenants of all the lands on which such distress shall be taken are hereby authorized and required to pay any sum of money for which such distress shall be made, and to deduct the same

out of his, her, or their rent; and every tenant making such payment shall be acquitted, exonerated, and discharged for so much money as shall be by him or her so paid: Provided always, that no such levy by distress and sale shall be made in respect of any such rate or assessment when more than six years shall have elapsed from the time when such rate or assessment first became due, unless a promise in writing to pay the said rate or assessment shall have been given by the person or persons liable to the payment thereof to some person duly authorized to receive the same; and when such promise has been given no such levy by distress or sale shall take place when more than six years shall have elapsed from the time that such promise was given: Provided also, that no such levy by distress and sale shall in any case exceed the amount of the rent due.

*Form of Warrant of Distress*

II. And be it further enacted, that the justices by whom any such warrant of distress shall be issued may cause such warrant to be drawn up in the following form of words, or in any other form to the same effect; (that is to say.)

“ To the constable of the                    in the county of  
 “                    } Whereas in and by a certain rate or assess-  
 [to wit.            ] ment, dated the                    and made for  
 [here in substance describe the purposes of the rate] A.  
 B. of                    in the parish of                    in the county  
 of                    was duly rated and assessed in the sum  
 of                    [if more than one rate or assesment, recite the  
 others in the same manner:] And whereas it appeareth  
 unto us, two (or more) of His Majesty's justices of  
 the peace for the said (county, riding, or division, as  
 the case may be,) upon the complaint of C. D. of  
 the person to whom the said rate or assessment  
 ought to be paid, (or otherwise, as the case may be,)  
 that a notice in writing, requiring payment of the  
 said sum (or said several sums,) was personally  
 served on the said A. B., (or left at the place of  
 abode of the said A. B., or of the tenant or occupier  
 of the lands or grounds,) to wit on the                    day  
 of                    last, and that default has been made in  
 payment thereof for the space of twenty-one days  
 next after such notice so served (or left,) and that  
 the same sum (or several sums, or a certain part of  
 such sum or sums, as the case may be,) is (or are) still  
 due and unpaid: and whereas it having been duly  
 proved to us, upon oath, that the said A. B. hath  
 been duly summoned to appear before us, the said  
 justices, to show cause why the said rate or assess-  
 ment (rates or assessments) should not be paid; and  
 he the said A. B. having appeared before us (or and  
 he the said A. B. having neglected to appear accord-  
 ingly before us, as the case may be,) according to  
 such summons, and not having shown to us any  
 sufficient cause why the said sum so as aforesaid due  
 and unpaid should not be paid: these are therefore  
 to require you forthwith to make distress of the

goods and chattels of him the said A. B. wheresoever they may be found, or of the occupier or occupiers of the lands or grounds or some part thereof belonging to the said A. B. in respect of which the said rate or assessment, (rates or assessments) is (or are) made, which may be found in and upon such lands or grounds; and if within the space of five days next after such distress by you taken, the sum of                    and also the further sum of                    being the costs already incurred in the premises, making together the sum of                    together with the reasonable charges of taking and keeping the said distress, shall not be paid, that then you do sell the said goods and chattels so by you distrained, and out of the money arising by such sale that you detain the said sum of                    and also your reasonable charges of taking, keeping, appraising and selling the said distress, rendering to him the said A. B. the overplus, on demand. Given under our hands and seals this                    day of                    one thousand eight hundred and thirty.

*Appeal*

III. And be it further enacted, that if any person or persons shall think himself, herself, or themselves aggrieved by any thing done in pursuance of this Act, then and in every such case, he, she, or they may appeal to the next court of general quarter sessions of the peace which shall be holden not less than ten days after the cause of such complaint for the county, riding, division, or place wherein the cause of complaint shall have arisen: provided that such person shall give to the complainant a notice in writing of such appeal, and of the cause and matter thereof, within eight days after such cause of complaint, and six clear days at the least before such sessions, and shall also enter into a recognizance within such six days, with sufficient surety, before a justice of the peace for the same county, riding, division, or place, conditioned to appear at the said sessions, and to try such appeal, and to abide the judgment of the court thereupon, and to pay such costs as shall be awarded by the court; and the court at such sessions shall hear and determine the matter of such appeal, and shall make such order therein, with or without costs to either party, as to the court shall seem meet.

*Warrant not to be quashed for want of Form.*

IV. And be it further enacted, that no such warrant of distress or adjudication made on appeal therefrom shall be quashed for want of form.

*Rated Persons not to be disqualified from giving Evidence.*

V. Provided always, and be it further enacted that at the hearing of the said complaint and appeal, or either of them, no person shall be an incompetent witness by reason of his or her being rated or liable to be rated to the said rate or assessment, rates or assessments.

# AN ACT

FOR

REMEDYING A DEFECT IN TITLES TO MESSUAGES, LANDS, TENEMENTS, AND HEREDITAMENTS, ALLOTTED, SOLD, DIVIDED, OR EXCHANGED UNDER ACTS OF INCLOSURE, IN CONSEQUENCE OF THE AWARD NOT HAVING BEEN INROLLED, OR NOT HAVING BEEN INROLLED WITHIN THE TIME LIMITED BY THE SEVERAL ACTS; AND FOR AUTHORIZING THE APPOINTMENT OF NEW COMMISSIONERS IN CERTAIN CASES WHERE THE SAME SHALL HAVE BEEN OMITTED.

3. & 4. WILLIAM IV.

(28th August, 1833.)

*All Awards already made but not inrolled shall, from the Execution thereof be as valid as if inrolled within the Time limited by the Act.*

WHEREAS by divers Acts of Inclosure the awards or instruments in writing, thereby directed to be formed and drawn up or made by the commissioner or commissioners appointed by or by virtue of such Acts for executing the powers and authorities thereof respectively, are directed or required to be inrolled by or with the clerk of the peace of the county, riding, division, soke, or place in which the lands to which such Acts respectively relate are situated, or in one of his Majesty's courts of record at *Westminster*, or in some other court, and, in certain of the said Acts, within certain times mentioned in such Acts next after the execution of such awards or instruments in writing respectively; and in certain of the said Acts new commissioners are directed to be appointed within certain times thereby respectively limited: And whereas in a great number of instances such awards or instruments in writing have not been inrolled, or have not been inrolled within the time directed or required by the several Acts; and by reason of such omission the title to the messuages, lands, tenements, hereditaments allotted, sold, divided, or exchanged under such Acts respectively may be considered defective; and in many instances new commissioners have not been appointed within the time directed by the several Acts: And whereas it is expedient that provision should be made for remedying such defects: May it therefore please your Majesty that it may be enacted; and be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the lord's spiritual and temporal, and commons, in this present Parliament assembled, and by the authority of the same, That every award already made and executed under or in pursuance of any Act of Inclosure, and which has not been inrolled, or which has not been inrolled within the time limited by the Act under or in pursuance of which such award shall have been made, shall from the time of the execution of such

award be as good and valid and of the same effect in all respects as if such award had been inrolled in the manner, and within the time, if any, appointed and limited for that purpose in the Act under or in pursuance of which the same has been made.

*Proprietors of Lands may cause Awards to be inrolled. Copy of any Award so inrolled and signed by the proper Officer to be delivered to any Person requiring the same.*

II. And be it further enacted, That where any award already made and executed under or in pursuance of any Act of Inclosure has not been inrolled, it shall be lawful for any person or persons having or deriving title to any messuages, lands, tenements, and hereditaments under such award, at his, her, or their expense, to require and cause such award, with any maps or plans annexed or relating thereto, to be inrolled in any one of his Majesty's courts of record at *Westminster*, or by the clerk of the peace of the county, riding, division, soke, or place in which the lands to which such award shall relate are situated, to the end that recourse may be had thereto by any person or persons interested therein, for the inspection and perusal whereof no more than one shilling shall be paid; and a copy of such award when so inrolled, or of any part thereof, signed by the proper officer of the court wherein the same shall be inrolled, or by the clerk of the peace for such county, riding, division, soke, or place, or his deputy, purporting the same to be a true copy, shall from time to time be made and delivered by such officer or clerk of the peace for the time being, or his deputy, to any person or persons requesting the same, for which no more shall be paid than three-pence for every sheet of seventy-two words; and every award already made, whether inrolled or not, and every copy of such award when inrolled as aforesaid, or of any part thereof, signed as aforesaid, shall at all times be admitted and allowed in all courts whatsoever as legal evidence.

*As to Practice requiring Acknowledgement of Deeds.*

III. And be it further enacted, That if any commissioner shall be dead or incapable of acknowledging his award before such award shall be inrolled, the same award may be inrolled without the acknowledgement of such commissioner, on due proof being given that such award is the deed or instrument of such commissioner.

*As to the Possession of Awards when deposited.*

IV. And be it further enacted, That where any award already made and executed under or in pursuance of any Act of Inclosure shall be deposited in any parish church, it shall be considered as in the custody of the officiating minister and churchwardens for the time being of such parish church; and where any such award shall be in the possession of the lord of any manor to or for whom, or to or for any preceding lord of which manor, any allotment shall have been made under such award, or in the possession of the steward of such manor, it shall be considered as in the custody of the lord of such manor for the time being; and the steward shall, when required, deliver up the same accordingly; and the said minister and churchwardens, or lord, as the case may be, shall from time to time, upon the request of any person or persons interested in any allotment or allotments, or otherwise, under such award, cause the same to be produced for the inspection of such person or persons on being paid by him, her, or them a just and reasonable compensation for such production, and shall also cause the same to be produced for the purpose of being inrolled, or in any court of law or equity, or on any other occasion, for the purpose of being given in evidence, on being paid all just expenses.

*Proprietors may require Awards to be deposited in the Church or with the Lord of the Manor.*

V. And be it further enacted, That where any such award as aforesaid shall not be deposited in the parish church of the parish in which the lands to which such award shall relate are situated, and shall not be in the possession of the lord or steward of any manor to or for the present or any preceding lord of which manor an allotment shall have been made under such award, but shall be in the possession of any other person, it shall be lawful for any person or persons interested in any allotment or allotments, or otherwise, under such award, to require the same to be deposited in the parish church of the parish in which the lands to which such award shall relate are situated, and the person in whose possession the same shall be, shall on such request, deliver up the same to the minister and churchwardens for the time being of such parish church, for the purpose of being so deposited.

*Providing for Appointment of Commissioners in Cases where they have been neglected or omitted to be made.*

VI. And be it further enacted, That in all cases where in or by virtue of any Act or Acts of Inclosure heretofore passed provision hath been made for the election, nomination, or appointment, within a time therein limited or directed, of a new commissioner or commissioners in the event of the death, refusal, or neglect to act of the commissioner

or commissioners appointed by or by virtue of such Act or Acts, or of his or their becoming, by reason of absence beyond the seas, or otherwise, incapable of acting in the execution of the powers, authorities, and trusts in such commissioner or commissioners vested and reposed, before the same and every of them shall have been fully executed and performed, and where any such election, nomination, or appointment, as aforesaid, or any of them, shall have been neglected or omitted to have been made, pursuant to such Act or Acts within the time or times thereby limited or directed, then and in every such case it shall and may be lawful to and for the person or persons by any such Act or Acts of Inclosure authorized or empowered for that purpose, and on such notice or notices, and at such meeting or meetings (if any) as required or directed by any such Act or Acts of Inclosure, to proceed at any time after the passing of this Act to the election, nomination, and appointment of, and to elect, nominate, and appoint in such manner as by such Act or Acts of Inclosure is or are directed, one or more fit and proper person or persons (as the case may require), not interested in the division, allotment, or inclosure by such Act or Acts of Inclosure directed or authorized to be made, and not otherwise disqualified by such Act or Acts respectively, as a commissioner or commissioners in the room, place, or stead of the commissioner or commissioners so dying, refusing, or neglecting, or becoming incapable of acting as aforesaid, and to do all other acts, matters, and things which shall be requisite or necessary for effecting the purposes aforesaid, notwithstanding the time so limited or appointed as aforesaid for doing or performing the same shall then have elapsed, and so from time to time as often as any commissioner so to be elected, nominated, or appointed as aforesaid shall die, refuse, neglect, or become incapable of acting as aforesaid; and the several writings appointing such new commissioner or commissioners, and all other documents (if any) relative thereto, shall be deposited or disposed of as by such Act or Acts of Inclosure is or are directed; and every commissioner to be elected, nominated, or appointed by virtue of this Act to execute the powers, authorities, and trusts of any Act or Acts of Inclosure as aforesaid, having first taken the oath or oaths, and complied with the other terms or conditions (if any) prescribed in and by such Act or Acts of Inclosure, shall have the same powers and authorities, and no others, for putting or carrying into execution such Act or Acts, as if he had been duly elected, nominated, and appointed for those purposes, within the time limited or directed by such Act or Acts of Inclosure.

*Act not to give greater Validity to Awards than as respects the Defects.*

VII. Provided always, and be it further enacted, That nothing herein contained shall extend to affect any public right, or otherwise to give any greater force or validity to any award already made and executed under or in pursuance of any Act of Inclosure, than such award would have had if this Act had not been made, except so far as respects the several defects herein-before respectively specified and provided for.



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- to be set out by commissioners, *id.* s. 10.
- by whom to be kept in repair, *id.*
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- tenants for lives enabled to accept allotments, 41 G. 3, s. 18.
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- may set up posts, &c. after certain period, *id.* s. 25.
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- commissioners may apportion making and maintaining fences among, *id.*
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- names of, to be inserted in maps, *id.* s. 35.
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- may adopt old plans, &c. *id.* s. 11.
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- cultivated lands not to be allotted to other persons without consent of, *id.* s. 23.
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## PUBLIC FUNDS,

- what monies to be invested in, 41 G. 3, s. 21.

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## QUARRIES,

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## RACK-RENT,

- leases at, may be voided, 6 & 7 W. 4, s. 34.
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- rent of lands let at, and allotted, may be apportioned by commissioners, *id.*

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## RENT,

- of allotments how recovered, 1 & 2 G. 4, c. 23, s. 1.

## REVERSIONER,

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## RIGHTS,

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- of lords of manors saved, 41 G. 3, s. 40.

## RIVULET,

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## ROADS,

- to be set out by commissioners, *id.* s. 8.
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- must be defined by marks and bounds, *id.*
- notice of, must be given, *id.*
- objections may be made to setting out, *id.*
- objections to be determined by commissioners and justices, *id.*
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## SCHEDULE,

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- by whom to be signed, *id.*
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THE  
**A C T**  
FOR THE  
**COMMUTATION OF TITHES**

IN  
**England and Wales;**

WITH  
**NOTES AND A COPIOUS INDEX,**

BY  
**WILLIAM SHAW, ESQ.,**

OF THE INNER TEMPLE,  
*BARRISTER AT LAW.*

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## NOTICE.

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A plan for the Commutation of Tithes having been sanctioned by the Legislature, and which, by the co-operation of men of all shades of political opinion, has been rendered as perfect as any general measure applicable to a question so complicated and difficult could be, the Editor thought it desirable that the Act should be in the hands of the parties interested as early as possible. This seemed to be more necessary as the period in which a VOLUNTARY Commutation may be effected is limited to something more than two years, the Commissioners being invested with full power to make a COMPULSORY Commutation after the 1st Oct. 1838. The important point disputed in settling this question was, whether the Commutation should be VOLUNTARY or COMPULSORY. The Act just passed gets rid of the difficulty by first facilitating a VOLUNTARY Commutation, and if by a given day no arrangement shall have been effected, then by enforcing a COMPULSORY settlement. The Editor has both before and since the question has been agitated in Parliament given considerable attention to the subject, and the result of his most mature reflection is, that in by far the majority of cases a VOLUNTARY Commutation will be found most satisfactory. It cannot be doubted that impracticable persons will occasionally be met with upon whom reason and argument will produce no effect; in such cases a COMPULSORY mode becomes absolutely requisite: these, however, are the exceptions. The payers and receivers of tithes in each parish being the parties interested are likely to be best acquainted with the minute circumstances attendant upon the quality and production of the soil—the system of farming—the outlay which has been made in improvements—and a thousand other details necessary to be taken into consideration. Let them but meet, with a determination to be reasonable, and the difficulties which seem to impede their progress will in the main be removed. The Commissioners are necessarily clothed with large discretionary powers, without which it would be impossible for them to embrace all cases, many of which differ so widely from each other. The landed interest, however, has ample earnest that that discretion will not be abused in the appointment of the Commissioners, W. Blamire, Esq., the late member for Cumberland, I. W. Buller, Esq., and the Rev. R. Jones, M.A. of King's College, London. Independent of being a considerable landed proprietor Mr. Blamire the Chief Commissioner, is well known to be a sound practical agriculturist, a qualification which if not altogether essential in a Commissioner will aid

him much in the performance of his duties, and will be absolutely requisite in an Assistant-Commissioner. Many valuable improvements were made in the Tithe Bill upon the suggestion of Mr. Blamire, and for which Lord John Russell expressed his obligations in the House of Commons. The Rev. R. Jones has also devoted much time and attention to the tithe question, and materially contributed to the satisfactory arrangement of the present system of Commutation. Up to the 1st October, 1838, the duties of the Commissioners will be rather to advise and co-operate with those parties who may wish to effect a VOLUNTARY Commutation. After that day they are directed by the Act to take immediate steps for effecting a COMPULSORY Commutation of Tithes in every parish. The Editor being desirous of rendering this edition of the Act practically useful to general readers has, for the purpose of facilitating reference, given a very copious index preferring to be guilty of repetition rather than that difficulty shall be experienced in finding any subject to which it may be requisite to refer. The very short space of time which has elapsed since the Act received the Royal Assent, (13th August) combined with the circumstance of its being published in a magazine, which required that it should be completed early (26th August) have rendered it impossible to make this edition as perfect as the Editor could wish: he trusts, however, that it will be found sufficiently useful for ordinary practical purposes.

WM. SHAW.

*3, Church Yard Court, Temple.*

*August 26, 1836.*

## VOLUNTARY COMMUTATION.

A hope was entertained that there would have been sufficient time before the Magazine went to Press to prepare a statement in detail of the proceedings to be taken in effecting a VOLUNTARY and a COMPULSORY Commutation of Tithes under this Act. That being found impracticable it is necessarily postponed until the next Number, to be published on the 1st October, when such practical directions will be given as will very much simplify the course of proceeding. For the present it must suffice to observe that persons having it in contemplation, to take steps for effecting a voluntary Commutation of Tithes, will find that an acquaintance with the following points will not only enable them to provide against difficulties which, by presenting themselves at a parochial meeting, may occasion delay, but also that a previous knowledge of them will tend very much to facilitate the business of the Meeting.

The meaning of the following terms, as explained in s. 12:—

“ Person,”		“ Parochial,”
“ Lands,”		“ Land-owner” or “ Owner of land,”
“ Tithes,”		“ Tithe-owner” or “ Owner of tithes.”

Forms of notices, agreements, &c. will be supplied by the commissioners to churchwardens and overseers, upon application, s. 22.

If it be expedient, for the purposes of commutation, that a parish should be divided, commissioners have power to direct a division. See “ Parish,” s. 12.

Correspondence with commissioners is exempt from postage, s. 92.

Advertisements, contracts, agreements, awards, and powers of attorney, &c., not liable to stamp-duty, s. 91.

By whom the ownership of lands and patronage belonging to the crown is to be exercised, s. 13.

An owner of lands, being also owner of tithes and patron, may be treated, and may act and vote in each separate character, s. 14.

Land-owner, tithe-owner, or patron, or any person interested, being a minor, idiot, &c., or labouring under other legal disability, may act by his legal representative, and in default of such, commissioners may name a person to represent him, s. 15.

All acts may be done by agent duly appointed, s. 16.

Leases of tithes commuted may be surrendered, with consent of commissioners, s. 88.

The interest of land-owners and tithe-owners to be calculated by reference to the poor-rate, if no poor-rate, then according to the rule by which property is rated, to the relief of the poor, s. 19.

The tithe of mills may be included in parochial agreement, but Easter offerings, surplice fees, mineral tithes, personal tithes, &c. &c. cannot be included without special provision and consent of commissioners, s. 90.

### MEETING.

Land-owners having an interest in one-fourth of the value of the titheable lands, or tithe-owners having an interest in one-fourth of the value of the tithes, may summon a parochial meeting, giving 21 days notice, s. 17.

The notice must be signed by the parties, affixed upon the church-door, or in some other conspicuous place within the parish, and inserted twice during the 21 days in some one of the county papers, s. 17.

Commissioners or assistant-commissioners may attend meeting to advise on terms of agreement, s. 23.

First business of meeting to elect a chairman, s. 18.

Chairman to ascertain the interest of land and tithe-owners present, s. 18.

Correct minutes should be kept.

Meeting may be adjourned; notice of adjournment, signed by chairman, being put up outside the building where the last meeting took place. Business transacted at adjourned meetings as valid as if done at original meeting, s. 20.

If there be present land-owners interested in two-thirds of the titheable lands, tithe-owners interested in two-thirds of the great tithes, and also in two-thirds of the small tithes, an agreement for commutation by the payment of an annual sum in lieu of tithes, may be made and executed, s. 17.

This sum must be the total sum to be paid by the parish, the apportionment of the proportional amount upon the respective lands will be made afterwards.

If there be not present the above-required number of land and tithe-owners, then those who are present, whatever the number, may make a provisional agreement, which if signed

- within six months of the date of the first signature by two-thirds of the owners of land, two-thirds of the owners of great, and two-thirds of the owners of small tithes, respectively, will be as valid as if made at a full meeting, s. 18.
- Consent of patron must be obtained to every agreement for commutation of ecclesiastical tithes, s. 26.
- Twenty acres of land may be given to the owner of *ecclesiastical* tithes in lieu of rent-charge, or an equivalent part of it, s. 29.
- The agreement should strictly follow the form prescribed, and contain all the particulars therein required.
- The agreement, when properly executed, to be sent to the office of the commissioners, who will examine into its fairness and correctness, and call for proof if they deem it necessary, s. 27.
- If the agreement refer to ecclesiastical tithes, commissioners will give notice to the Bishop of the diocese before confirmation, s. 28.
- If land be given to ecclesiastical tith-owner, in lieu of rent-charge, commissioners will satisfy themselves as to the title at the expense of the land-owners, s. 30.
- Suits and differences pending at the time, or arising during the making of a parochial agreement, may be referred to arbitration, and the decision will be final, s. 24.
- Reversioners, &c. will not be bound by decision of arbitrator, without the consent of the commissioners, who may direct that other persons interested be made parties to the reference, s. 24.
- Expenses of advertising and attending parochial meetings, must be borne by the parties, s. 17.

#### Particulars to be set out in Parochial Agreement.

- The date of the first signature.
- Particulars of all the lands subject to tithes
- The true or estimated statute measure.
- The nature of the land, as arable, meadow, pasture, wood land, common land, &c. &c.
- Whether any and *what* lands subject to moduses, composition real, prescriptive or customary payments, &c. &c.
- What tithes so covered by moduses, &c. &c.
- The number of tithe-owners, their respective rights, to what tithes entitled, and upon what lands.
- Whether any and what lands, and how exempt from tithes.
- The amount of the sum or sums agreed to be paid by way of rent-charge, in words at length.
- And such other particulars as the commissioners may require.

#### “C O R N.

RETURN to an Order of the Honourable the House of Commons, dated 19th February, 1836;—for,  
AN ACCOUNT of the Average Prices of BRITISH WHEAT, BARLEY, and OATS, in *England* and *Wales*, for the Seven Years preceding 31st December, 1835, computed from the Weekly Averages of the CORN RETURNS.

YEARS ENDED.	WHEAT.		BARLEY.		OATS.	
	Per Quarter.		Per Quarter.		Per Quarter.	
	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
1829 .....	66	3	32	6	22	9
1830 .....	64	5	32	7	24	5
1831 .....	66	1	38	0	25	4
1832 .....	58	3	33	1	20	5
1833 .....	52	11	27	6	18	5
1834 .....	46	2	29	0	20	11
1835 .....	39	4	29	11	22	0
Average of the Seven Years.	56	3	31	9	22	0*

Corn Department, }  
Board of Trade. }

WILLIAM JACOB,  
Comptroller of Corn Returns.\*

\* Hence the price of the bushel is,—Wheat, 7*s.* 0½*d.*; Barley, 3*s.* 11½*d.*; Oats, 2*s.* 9*d.*



This average when taken as the basis for commutting 300*l.* of tithes, would produce the following result :—

	Qrs.
100 <i>l.</i> laid out in wheat, at 56 <i>s.</i> 3 <i>d.</i> per quarter, would produce .....	35·56
100 <i>l.</i> laid out in barley, at 31 <i>s.</i> 9 <i>d.</i> per quarter, would produce .....	62·98
100 <i>l.</i> laid out in oats, at 2 <i>s.</i> per quarter, would produce .....	90·9

Suppose that in 1837 the average prices of the seven preceding years, ending Christmas 1836, should prove to be—

Wheat .....	60 <i>s.</i>
Barley .....	40 <i>s.</i>
Oats .....	20 <i>s.</i>

Then, a corn rent-charge rendering the number of quarters above specified, and which are this year worth 300*l.* would produce in 1837, as follows :—

	£	<i>s.</i>	<i>d.</i>
35·56 quarters of wheat, at 60 <i>s.</i> .....	106	13	6
62·98 — of barley, at 40 <i>s.</i> .....	125	19	2
90·9 — of oats, at 20 <i>s.</i> .....	90	18	0
Total value of rent-charge for 1837 .....	323	10	8

Such is the kind of variation which will take place under the Act.

### RENT-CHARGE.

The following rule has been communicated by Mr. DRINKWATER, the Parliamentary Counsel to the Home Office and published, by which the variations in the value of any rent-charge may be readily calculated. It will always give less than the true value, but the error will never amount to half a farthing per £1.

**RULE.** Add together the price of a bushel of wheat, barley, and oats, (as published in the Gazette, according to the Act,) and subtract one-twentieth part of the sum. Call the remainder (*A*).

Add together the price of a bushel of barley, and of two bushels of oats; subtract one-fourth part of the sum, and one-fiftieth part of the remainder. Call the last remainder (*B*).

The sum of (*A*) and (*B*) is the value in any year of that which was £1 at the time of commutation.

**Ex. 1.** Let the price of wheat be 7*s.* 0¼*d.*, barley 3*s.* 11½*d.*, and oats 2*s.* 9*d.* per bushel.

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The investigation of this rule is very simple.

The present prices, as deduced from the return made to the House of Commons, from the Corn Office, and which will govern the conversions, are those assumed in the first example;—viz. Wheat 7*s.* 0¼*d.* Barley 3*s.* 11½*d.* Oats 2*s.* 9*d.*

Let the prices in any following year be, Wheat X, Barley Y, Oats Z.  
Then the value of £1 converted at the present prices, and reconverted at the supposed prices, X, Y, Z.

$$= \frac{s. d.}{6 \ 8} .X + \frac{s. d.}{6 \ 8} Y + \frac{s. d.}{6 \ 8} .Z$$

$$= \frac{320}{7 \ 0\frac{1}{4}} .X + \frac{320}{3 \ 11\frac{1}{2}} .Y + \frac{320}{132} .Z$$

$$= \frac{320}{337} .X + \frac{320}{190} .Y + \frac{320}{132} .Z$$

$$\frac{320}{337} = .94955 = .95 - .00046$$

$$\frac{320}{190} = 1.6842 = .95 + .7342 = .95 + .735 - .0008$$

$$\frac{320}{132} = 2.4242 = .95 + 1.4742 = .95 + 2 + .735 + .0042$$

Therefore the value of £1 becomes .95 (X+Y+Z) + .735 (Y+2Z)  
+ .0042 Z - (.00046 X + .0008 Y)

The first line contains the result of the rule for ..... .95 =  $\frac{19}{20}$   
and .... .735 =  $\frac{3}{4} - \frac{1}{20}$

The error of the rule is therefore contained in the second line.

A table is subjoined, showing the average price of seven years preceding every year since 1820.

It may be assumed that the average price of wheat will never be more than three times the average price of oats, nor barley more than twice the average price of oats.

With those extreme values the error is still in defect, and amounts to .00122 Z.

It may also be assumed, that the average price of wheat will never be less than twice the average price of oats, nor barley less than oats.

With those extreme values the error is at its greatest, and amounts to .0025 Z, which is less than half a farthing, so long as Z is less than 4s., i. e. whenever oats are less than 32s.

AVERAGE PRICE OF CORN DURING SEVEN YEARS ENDING AT THE CHRISTMAS PRECEDING EACH YEAR.

YEARS.	WHEAT.		BARLEY.		OATS.	
	s.	d.	s.	d.	s.	d.
1821 .....	75	2	39	0	26	3
1822 .....	72	2	37	10	25	6
1823 .....	68	6	37	6	25	5
1824 .....	63	10	35	7	24	4
1825 .....	61	3	33	8	23	4
1826 .....	59	0	32	0	23	2
1827 .....	57	5	32	1	23	7
1828 .....	58	1	33	4	24	0
1829 .....	61	2	34	10	24	8
1830 .....	62	8	35	0	24	11
1831 .....	63	0	35	3	24	11
1832 .....	61	7	34	3	24	2
1833 .....	60	10	33	3	23	0
1834 .....	59	3	32	3	22	1
1835 .....	56	3	31	10	22	0

# AN ACT

## FOR THE COMMUTATION OF TITHES IN ENGLAND AND WALES.

6 & 7 WILL. IV.

[13th August, 1836.]

APPOINTMENT AND GENERAL POWERS  
OF COMMISSIONERS AND ASSISTANT  
COMMISSIONERS.

### *Appointment of Commissioners.*

I. Whereas it is expedient to amend the laws relating to Tithes (*a*) in *England* and *Wales*, and to provide the means for an adequate compensation for tithes, and for the commutation thereof; be it therefore enacted, by the King's most excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that it shall be lawful for one of his Majesty's principal Secretaries of State to appoint two fit persons to be commissioners to carry this act into execution, and for the Archbishop of *Canterbury*, under his hand and archiepiscopal seal, to appoint one fit person to be a commissioner to carry this act into execution, (*b*) and for the said Archbishop and Secretary of State at their joint pleasure to remove any one or more of the commissioners so appointed; and upon every vacancy in the office of commissioner some other fit person shall be appointed to the said office in the same manner and by the same authority as the commissioner whose vacancy is thereby supplied; and until such appointment it shall be lawful for the continuing commissioners or commissioner to act as if no such vacancy had occurred (*c*).

(*a*) By the interpretation clause, s. 12, p. 11, the word "TITHES" "shall mean and include all uncommuted tithes, and portions and parcels of tithes, and all moduses, compositions real and prescriptive, and customary payments."

(*b*) This appointment is to continue in force five years, and from thence to the end of the next session of Parliament, after which so much of this Act as authorises any such appointment to cease, see s. 6, p. 10.

(*c*) As to oath to be taken by commissioners, see s. 9, p. 10.

*Style of Commissioners.*—To have a Common Seal.—Awards, &c. purporting to be sealed with such Seal, to be received as evidence.

II. And be it enacted, that the said commissioners shall be styled "The Tithe Commissioners for *England* and *Wales*," and shall have their office in *London* or *Westminster*, and they, or any two of them, may sit from time to time, as they deem expedient, as a board of commissioners for carrying this act into execution; and the said commissioners shall cause to be made a seal of the said board, and shall cause to be sealed or stamped therewith all agreements and awards confirmed by the said commissioners in pursuance of this act; and all such agreements and awards, and other instruments proceeding from the said board, or copies thereof, purporting to be sealed or stamped with the seal of the said board, shall be received in evidence, without any further proof thereof; and no agreement or award shall be of any force, unless the same shall be sealed or stamped as aforesaid.

*Commissioners to Report to Secretary of State.*

—Annual Report to be laid before Parliament.

III. And be it enacted, that the said commissioners shall from time to time give to any one of his Majesty's principal secretaries of state such information respecting their proceedings, or any part thereof, as the said principal secretary of state shall require, and shall once in every year send to one of the principal secretaries of state a general report of their proceedings; and every year such general report shall be laid before both Houses of Parliament within six weeks after the receipt of the same by such principal secretary of state, if Parliament be sitting, or if Parliament be not sitting, then within six weeks after the next meeting thereof.

*Power to appoint Assistant Commissioners, Secretary, Assistant Secretary. &c.—Limiting the number of Appointments.*

IV. And be it enacted, that it shall be lawful for the commissioners from time to time to appoint a sufficient number of persons to be assistant commissioners (*d*), and also a secretary and assistant secretary, and all such clerks, messengers and officers as they shall deem necessary, and to remove such assistant commissioners, secretary or assistant secretary, clerks, messengers or officers, or any of them, and on any vacancy in any of the said offices to appoint some other person to the vacant office; and the persons so appointed shall assist in carrying this act into execution at such places and in such manner as the said commissioners may direct: provided always, that the said commissioners shall not appoint more than twelve such assistant commissioners to act at any one time, unless the Lord High Treasurer, or any three or more of the commissioners of his Majesty's treasury, shall in the case of each such appointment consent thereto: provided further, that the number of such clerks, messengers and officers shall be subject to the like consent.

*Commissioners not to sit in the House of Commons.*

V. And be it enacted, that no commissioner or assistant commissioner appointed as aforesaid shall during his continuance in such office be capable of being elected or of sitting as a member of the House of Commons.

*Operation of Act as to appointment of Commissioner, &c. limited to five years.*

VI. And be it enacted, that no commissioner or assistant commissioner, secretary, assistant secretary, or other officer or person so to be appointed, shall hold his office for a longer period than five years next after the day of the passing of this act, and thenceforth until the end of the then next session of Parliament; and after the expiration of the said period of five years and of the then next session of Parliament so much of this act as authorizes any such appointment shall cease.

*Salaries of, and Allowances to, Commissioners and Assistant Commissioners, Secretary and other Officers.*

VII. And be it enacted, that the salaries of the commissioners, the allowance to the

assistant-commissioners, and the salaries of the secretary, assistant-secretary, clerks, messengers, and other officers to be appointed under this act, shall be from time to time regulated by the Lord Treasurer or the Lords Commissioners of his Majesty's treasury, or any three of them: provided always, that the salary of a commissioner shall not exceed the sum of one thousand five hundred pounds a year, nor the allowance to an assistant-commissioner the sum of three pounds for every day that he shall be actually employed or travelling in the performance of the duties of his office, nor the salaries of the secretary or assistant-secretary the sum of eight hundred pounds a year; and that the salaries of the clerks, messengers and other officers shall be in fit proportion: provided also, that the said lord treasurer or lords commissioners may allow to any commissioner, assistant-commissioner, secretary, assistant-secretary, clerk, messenger, or other officer, any such reasonable travelling and other expenses as may have been incurred by him in the performance of his duties under this act, in addition to his salary or allowance respectively.

*Such Salaries, Allowances, and other Expenses, how to be paid.*

VIII. And be it enacted, that the salaries, allowances and travelling and other expenses of the commissioners, assistant-commissioners, secretary, assistant-secretary, clerks, messengers and officers as aforesaid, and all other incidental expenses of carrying this act into execution, not herein otherwise provided for, shall be paid by the lord treasurer or the lords commissioners of his Majesty's treasury out of the Consolidated Fund.

*Commissioners and Assistant-Commissioners to take an Oath.—Form of Oath.—Notification of Appointment to be published in the Gazette.*

IX. And be it enacted, that every such commissioner and assistant-commissioner shall, before he shall enter upon the execution of his office, take the following oath before one of the Judges of his Majesty's Courts of King's Bench or Common Pleas, or one of the Barons of the Court of Exchequer; (that is to say)

“ I, A. B., do swear, that I will faithfully, impartially and honestly, according to the best of my skill and judgment, fulfil all the powers and duties of a commissioner (or assistant-commissioner, as the case may be,) under an act passed in the seventh

(*d*) As to oath to be taken by assistant commissioners, see s. 9, p. 10; and as to the powers of assistant commissioners, see s. 11, p. 11.

year of the reign of King *William* the Fourth, intituled [*here set forth the title of this act.*]

And the appointment of every such commissioner and assistant-commissioner, with the time when and the name of the judge or baron before whom he shall have taken the oath aforesaid, shall be forthwith published in the *London Gazette*.

*Commissioners or Assistant-Commissioner may summon and examine Witnesses.*

X. And be it enacted, that the said commissioners, or any assistant-commissioner, may, by summons under their or his hand, require the attendance (*e*) of all such persons as they or he may think fit to examine upon any matter brought before them or him as hereinafter mentioned relating to the Commutation of Tithes, and also make any inquiries and call for any answer or return as to any such matter, and also administer oaths, and examine all such persons upon oath, and cause to be produced before them or him upon oath, all books, deeds, contracts, agreements, accounts and writings, terriers, maps, plans and surveys, or copies thereof respectively, in anywise relating to any such matter: provided always, that no such person shall be required, in obedience to any such summons, to travel more than ten miles from the place of his abode, or to produce any deeds, papers or writings relating to the title of any lands or tithes (*f*).

*Commissioners may delegate Powers to Assistant-Commissioners, except the Powers to be exercised under their Seal.*

XI. And be it enacted, that the said commissioners may delegate to their assistant-commissioners, or to any one or more of them, such of the powers hereby given to the said commissioners as the said commissioners shall think fit, (except the power to confirm agreements and awards, or to frame forms of agreements and other instruments, as hereinafter provided, or to do any act herein required to be done under the seal of the said commissioners), and the powers so delegated shall be exercised under such regulations as the said commissioners shall direct; and the said commissioners may at any time recall or alter all or any of the powers delegated as aforesaid, and, notwithstanding the delegation thereof, may act as if no such delegation

had been made; and all acts done by any such assistant-commissioner in pursuance of such delegated powers, shall be obeyed by all persons (*g*) as if they had proceeded from the said commissioners, and the non-observance thereof shall be punishable in like manner.

INTERPRETATION CLAUSES (*h*).

*Meaning of the words "Person," "Lands," "Tithes," "Parish," "Parochial," "Land Owner," "Tithe Owner," as used in this Act.—13 & 14 Car. 2, c. 12.—Where Parties to be deemed Joint Owners.*

XII. And be it enacted, that in the construction and for the purposes of this act, unless there be something in the subject or context repugnant to such construction, the word "person" shall mean and include the King's Majesty, and any body corporate, aggregate or sole, as well as an individual; and any word importing the singular number only, shall mean and include several persons or parties as well as one person or party, and several things as well as one thing respectively, and the converse; and any word importing the masculine gender only, shall mean and include a female as well as a male; and the word "lands" shall mean and include all messuages, lands, tenements, and hereditaments; and the word "tithes" shall mean and include all uncommuted tithes, portions and parcels of tithes, and all moduses, compositions real, and prescriptive and customary payments; and the words "parish" and "parochial" shall mean and include and extend to every parish and every extra-parochial place, and every township (*i*) or village, within which overseers of the poor are separately appointed under the provisions of an act passed in the thirteenth and fourteenth years of the reign of his late Majesty King *Charles* the Second, intituled *An Act for the better Relief of the Poor of this Kingdom*, and every district of which the tithes are payable under a separate impropriation or appropriation, or in a separate portion or parcel, or which the commissioners shall by any order direct to be considered as a separate

(*g*) By s. 12, p. 11, the word "PERSON" shall mean and include the King's Majesty, and every body corporate, aggregate, or sole, as well as an individual.

(*h*) Particular attention should be given to this and the three following sections, as a perfect knowledge of them will very much facilitate a ready apprehension of all the cases to which the Act applies.

(*i*) The townships to which the 13 and 14 Car. 2, applies, are most common in the North of England.

(*e*) See s. 93, p. 36, by which a party giving false evidence shall be deemed guilty of perjury, and any person refusing to give, or withholding evidence guilty of a misdemeanour.

(*f*) As to witnesses' expenses, see s. 73, p. 31.

district for the commutation of tithes (*j*) ; and the words "land owner" or "tithe owner," or "owner of lands" or "owner of tithes," shall mean and include every person who shall be in the actual possession or receipt of the rents or profits of any lands or tithes (except any tenant (*k*) for life or lives, or for years, holding under a lease or agreement for a lease on which a rent of not less than two-thirds of the clear yearly value of the premises comprised therein shall have been reserved, and except any tenant for years whatsoever holding under a lease or agreement for a lease for a term which shall not have exceeded fourteen years from the commencement thereof) and that without regard to the real amount of interest of such person ; and in every case (*l*) in which any tithes or lands shall have been leased or agreed to be leased to any person for life or lives, or for years, by any lease or agreement for a lease on which a rent less than two-thirds of the clear yearly value of the premises comprised therein shall have been reserved, and of which the term shall have exceeded fourteen years from the commencement thereof, the person who shall for the time being be in the actual receipt of the rent reserved upon such lease or agreement for a lease shall, jointly with the person who shall be liable to the payment of such rent of such tithes or lands, be deemed for the purposes of this act to be the owner of such tithes or lands : and in every case in which any person shall be in possession or receipt of the rents or profits of any tithes or lands under any sequestration, extent, elegit, or other writ of execution, or as a receiver under any order of a court of equity, the person against whom such writ shall have issued, or who but for such order would have been in possession, shall, jointly with the person in possession by virtue of such writ or order, be deemed for the purposes of this act to be the owner of such tithes or lands.

(*j*) This is a very useful provision, as it will enable the commissioners upon application being made to them, to direct that any part of a parish subject to any peculiarities which might impede a commutation, be taken separately.

(*k*) Tenants at a rent of two-thirds of the clear yearly value, and tenants for a less term than fourteen years, are generally considered to be "tenants at rack-rent."

(*l*) Instances may occur in which there may be many tenants intervening, between the original lessor and the tenant at rack-rent, in such cases the consent of the whole will be necessary.

*When the Ownership of Lands or Tithes or Patronage is vested in the Crown, who shall be deemed the Owner or Patron.*

XIII. And be it enacted, that whenever the ownership of any lands (*m*) or tithes to which the provisions of this act are intended to apply shall be vested in his Majesty, the first commissioner of his Majesty's woods, forests, and land revenues for the time being, or in case such lands or tithes shall be vested in his Majesty in right of the Duchy of *Lancaster* or of the Duchy of *Cornwall*, the Chancellor of the Duchy of *Lancaster*, or the Officers of the Duchy of *Cornwall* entitled to grant leases of lands parcel of the Duchy of *Cornwall* (*n*), shall for the purposes of this act be substituted instead of the owner of such lands or tithes respectively ; and whenever the patronage of any benefice to which the provisions of this act are intended to apply shall be vested in his Majesty, the Lord High Treasurer or First Lord Commissioner of the Treasury for the time being where the value of such benefice is above the yearly value of twenty pounds in the King's books, and where such value is of or below the yearly value of twenty pounds in the King's books, the Lord Chancellor or Lord Keeper or First Lord Commissioner of the Great Seal for the time being, shall for the purposes of this act be substituted instead of the patron : Provided nevertheless, that if such patronage is vested in his Majesty in right of the Duchy of *Lancaster*, the Chancellor for the time being of such Duchy shall for the purposes of this act be substituted instead of the patron.

*When the same Person is Owner of Lands and Owner of Tithes, he may be dealt with in both characters.*

XIV. And be it enacted, that whenever any person shall be at the same time owner (*o*) of any lands and owner of any tithes comprised within any agreement to be executed pursuant to the provisions of this act, or besides being owner of any lands or of any tithes shall also be patron of the benefice to which the tithes in question may belong, such person, in relation to such agreement, may act and be

(*m*) By s. 12, p. 11, the word "LANDS" "shall mean and include all messuages, lands, tenements, and hereditaments."

(*n*) 1 and 2 W. 4, c. 5.

(*o*) As to the meaning of the terms "OWNER OF LANDS," and "OWNER OF TITHES," see s. 12, p. 11.

dealt with in each of the several characters so borne by him as aforesaid. (p)

*In case the Patron or Owner is under legal Disability, who to act.*

XV. And be it enacted, that whenever the patron of any benefice or the owner of any lands or tithes to which the provisions of this act are intended to apply, or any person interested in any question as to any tithes, shall be a minor, idiot, lunatic, feme covert, beyond the seas, or under any other legal disability, the guardian, trustee, committee of the estate, husband, or attorney respectively, or in default thereof such person as may be nominated for that purpose by the commissioners after due inquiry shall have been made by them as to the fitness of such person, and whom they are hereby empowered to nominate under their hands and seal, shall for the purposes of this act be substituted in the place of such patron, owner, or person so interested.

*Acts may be done by Agents duly authorized.*

XVI. And be it enacted, that it shall be lawful for any land owner or tithe owner, by a power of attorney (q) given in writing under his hand, to appoint an agent to act for him in carrying into execution the provisions of this act; and all things which by this act are directed to be done by or with relation to any person may be lawfully done by or with relation to the agent so duly authorized of such person: and every such agent shall have full power, in the name and on behalf of his principal, to concur in and execute any agreement, and to vote on any question arising out of the execution of this act; and every person shall be bound by the acts of any such agent, according to the authority committed to him, as fully as if the principal of such agent had so acted; and the power of attorney under which the agent shall have acted, or a copy thereof authenticated by the signature of two credible witnesses, (r) shall be appended to every agreement executed by any such agent, and shall be sent with it to the office of the commissioners as hereinafter provided; and any such power of attorney may be in the form following:—

(p) That is, the same person may act and vote as land-owner, tithe-owner, and patron, if he be owner of land, owner of tithes, and patron.

(q) Power of attorney is exempt from stamp duty, see s. 91, p. 35.

(r) It will be most convenient for the agent to keep the original, and append an attested copy to the agreement.

*Power of Attorney.*

“I, A. B., of, [&c.] do hereby appoint C. D. of, [&c.] to be my lawful attorney to act for me in all respects as if I myself were present and acting in the execution of an act passed in the sixth and seventh years of his present Majesty, intitled [here insert the title of this Act].”

(Signed) ‘A. B.’

VOLUNTARY AGREEMENT FOR COMMUTATION BETWEEN LAND-OWNERS AND TITHE-OWNERS.

*Parochial Meetings may be called, at which Owners of Two-thirds in Value may agree on the sum to be paid to the Tithe Owners, which Agreement shall bind the whole Parish.*

XVII. And be it enacted, that any one or more of the land owners or tithe owners, whose interest respectively shall not be less than one-fourth part of the whole value of the lands subject to tithes, or one-fourth part of the whole value of the tithes of any parish (s) in *England* or *Wales*, may call a parochial meeting of land owners and tithe owners within the limits of the parish, by notice thereof in writing under his or their hand, to be affixed at least twenty-one days before such meeting on the principal outer door of the church, or in some public and conspicuous place within the limits of the parish, and to be twice at least during such twenty-one days inserted in some newspaper (t) generally circulated within the county in which such parish is situated, for the purpose of making an agreement (u) for the general commutation of tithes within the limits of such parish; and every land owner and tithe owner attending such meeting shall bear his own expenses of attendance; and the land owners and tithe owners who shall be present at any such meeting called as aforesaid, and whose interest in the lands and tithes of the parish respectively shall not be less than two-thirds of the lands subject to tithes, two-

(s) By s. 12, p. 11, the words “PARISH,” and “PAROCHIAL,” shall mean, and include, and extend to every parish, and every extra parochial place, and every township or village within which overseers of the poor are separately appointed under the provisions of the 13 and 14 Car. 2, c. 12, intituled *An Act for the better relief of the poor of this kingdom*, and every district in which the tithes are payable under a separate impropriation, or appropriation, or in a separate portion, or parcel, or which the commissioners shall by any order direct to be considered, as a separate district for the commutation of tithes.”

(t) Advertisements are exempt from duty, see s. 91, p. 35.

(u) In respect to agreements pending at the time of the passing of this act, see s. 25, p. 16.

thirds of the great tithes, and two-thirds of the small tithes of the parish, may proceed to make and execute a parochial agreement for the payment of an annual sum by way of rent-charge (*v*), variable as hereinafter provided, instead of the great and small tithes (*w*) of the parish collectively, or instead of the great tithes and small tithes severally, to the respective owners thereof in the said parish; and every agreement so made and executed, and confirmed (*x*) in manner hereinafter mentioned, shall be binding on all persons (*y*) interested in the tithes or lands subject to tithes of the said parish (*z*).

*Provisional Agreements may be made at the Parochial Meetings.*

XVIII. And be it enacted, that the majority of such land owners and tithe owners present at every such meeting shall elect a chairman, who shall forthwith proceed to ascertain (*a*) the interest (*b*) of the land owners and tithe owners then present in person or by their agents (*c*); and in case it shall thereupon appear that the persons present at such meeting have not a sufficient interest in the premises as aforesaid to make and execute such an agreement which shall be binding on all persons interested therein, it shall be lawful notwithstanding for any number of the persons then present to make and execute a provisional agreement for the commutation of tithes of the like form and tenor; and every such provisional agreement which shall be executed within six calendar months from the day (*d*) of the first making thereof by the land owners and tithe owners whose interest in the lands

and tithes of the parish shall not be less than two-thirds of the lands subject to tithes, two-thirds of the great tithes, and two-thirds of the small tithes of the parish respectively, shall be as binding as if executed by all the parties thereto at the meeting at which the agreement was first made.

*Proportional interest in Lands and Tithes, how to be estimated for the purposes of this Act.*

XIX. Provided always, and be it enacted, that the proportional interest (*e*) of the owners of such lands or tithes, so far as relates to their power to make any such agreement or provisional agreement, or to give any notice to the commissioners or assistant commissioners as hereinafter provided, shall be estimated according to the proportional sum at which such lands or tithes shall be rated (*f*) to the relief of the poor, or if there shall be no such rate, according to the rules by which property of the same kind is by law rateable to the relief of the poor.

*Meeting may be adjourned.*

XX. And be it enacted, that in case an adjournment of the said meeting for any cause shall be desired by a majority of the persons attending such meeting, the chairman shall adjourn the meeting to any time (*g*) and place then by him to be declared, and so from time to time in case the same shall be in like manner desired by a majority of the persons attending such meeting; and notice of every adjourned meeting shall be given under the hand of the chairman, and shall be affixed in a conspicuous place on the outside of the building in which such meeting or the last adjournment thereof shall have been holden; and the like order of proceeding shall be observed at any such adjourned meeting, and everything done at any such adjourned meeting shall be as valid as if done at the original meeting.

*Form of Parochial Agreement.*

XXI. And be it enacted, that every such agreement (*h*) shall bear date on the day

(*v*) Land not exceeding twenty acres may be given to any ecclesiastical owner as commutation of tithe, see s. 29; for appointment of valuers to appraise rent-charge, see s. 32, 33, 34, and 35.

(*w*) As to Easter offerings, mortuaries, surplice fees, tithes of fish or fishing, personal tithes, mineral tithes, payments in lieu of tithes by custom, or private Act of Parliament, and tithes already commuted and extinguished, see s. 90, p. 35.

(*x*) For confirmation of agreement by commissioners, see s. 27, p. 16.

(*y*) Consent of patron must be given to any agreement for commutation of ecclesiastical tithe, see s. 13 and 26.

(*z*) Tithes due before commutation not to be affected, see s. 89, p. 35.

(*a*) Correct minutes of the proceedings should be kept.

(*b*) See s. 19, p. 14, as to the mode of ascertaining the proportional interest of owners of land or tithes.

(*c*) See s. 16, p. 13, as to the appointment of agent, and what acts may be done by him when duly authorized.

(*d*) The day on which the first signature is attached thereto, see s. 21, p. 15.

(*e*) As to the mode of settling suits, and differences touching liability to the payment of tithes, the boundary of lands, &c., see s. 24, p. 15.

(*f*) It will be desirable to have the poor-rate books at the meeting, and to enter the assessment of each person who attends on the minutes.

(*g*) The twenty-one day's notice is only requisite on calling the first meeting.

(*h*) Forms of agreement will be supplied by the commissioners, but especial care must be taken that the provisions contained in this clause of the Act be strictly complied with.



on which the first signature is attached thereto, and every such agreement or some Schedule thereunto annexed shall set forth all the lands of the said parish which are subject to the payment of any kind of tithes, and also the true or estimated quantity in statute measure of land subject to tithes within the parish which shall be then cultivated as arable, meadow, or pasture land, or as wood land, common land, or howsoever otherwise, and shall also set forth whether any modus or composition real, or prescriptive or customary payment, shall be payable instead of all or any of the tithes of the said parish, and which lands or tithes respectively are covered thereby, and shall also set forth which of the said tithes, moduses, compositions or payments are payable to the tithe owner, or if there is more than one tithe owner to each of the several tithe owners in the said parish, distinguishing in what right every such tithe owner is entitled to such tithes, and shall also set forth whether any and which of the lands of the said parish are or have been under any and what circumstances (*i*) exempt from the payment of any and what tithes; and such agreement shall also state in words at length the amount of the sum or sums agreed to be paid (subject to variation as hereinafter provided) instead of the tithes of the lands comprised in the said agreement, and instead of all moduses and compositions real, prescriptive, and customary payments (if any), payable in respect of such lands, or the produce of such lands or any of them, distinguishing, if there is more than one tithe owner, the sum payable to every such tithe owner, and where the tithes of different lands in the same parish are payable to different tithe owners, or to the same tithe owner in different rights, distinguishing the sum payable in respect of such different lands; and every such agreement shall also state all such other particulars as the commissioners shall by any order from time to time require to be inserted in such agreements.

*Commissioners to frame and circulate Forms of Agreements, &c.*

XXII. And be it enacted, that the commissioners shall frame and cause to be printed, as soon as conveniently may be after their appointment, forms of notices

(*i*) A statement of the circumstances under which the lands are exempt is essential, as it may be that they are only exempt whilst in the hands of the present occupier.

and agreements and such other instruments as in their judgment will further the purposes of this act, and supply all or any of such forms to the churchwardens and overseers of any parish who may require (*j*) the same, or to whom the commissioners may think fit to send the same, for the use of any land owner or tithe owner desirous of putting this act in execution.

*Commissioner or Assistant Commissioner may attend to advise Terms of Agreement.*

XXIII. And be it enacted, that any commissioner, or assistant commissioner, if the commissioners shall think fit, may attend any such meeting for the purpose of taking part in the discussion and advising on the terms of agreement; but no commissioner or assistant commissioner, during the time that he is actually attending such meeting for that purpose, shall have any of the powers herein given to the commissioners in case of an award or apportionment by the commissioners as hereinafter provided.

*Suits and Differences may be referred to Arbitration.*

XXIV. And be it enacted, that if any suit shall be pending (*k*) touching the right to any tithes, or if there shall be any question as to the existence of any modus or composition real, or prescriptive or customary payment, or any claim of exemption from or non-liability to tithes, under any circumstances in respect of any lands or any kind of produce, or touching the situation or boundary of any lands, or if any difference shall arise whereby the making and executing of any such agreement shall be hindered, it shall be lawful for the owners, or if there shall be no owner actually in possession, for the persons claiming to be the owners of the lands and tithes respectively, being parties to such suit or difference, to submit the same to reference by any writing under their respective hands, containing an agreement that such submission shall be made a rule of any of his Majesty's courts of record, upon such terms of reference as the parties may agree upon; and the decision of the arbitrator

(*j*) Applications for these forms must be made to the churchwardens and overseers, who may themselves apply to the commissioners. Letters addressed to "the Tithe Commissioners for England and Wales, London," will go and be answered free of postage, see s. 92, p. 35.

(*k*) It should be observed that this section applies to disputes of any kind respecting tithes existing at the time of the passing of this act, as well as those which may arise hereafter.

or arbitrators named in the said reference shall for the purposes of this act be final and conclusive on all persons : Provided nevertheless, that no person being owner of an estate in land or tithes, less in the whole than an immediate estate of fee simple or fee tail, shall be empowered to submit to any such reference so as to bind any person in remainder, reversion, or expectancy, without the consent of the commissioners ; and that it shall be lawful for the commissioners, if they shall think fit so to do, but not otherwise necessary, to direct that any person in remainder, reversion, or expectancy of an estate of inheritance in the said lands or tithes, or any other person whom they shall deem to be interested therein, shall be made a party to such reference.

*Agreements pending at the time of the passing of this Act, if completed and confirmed by the Commissioners, to be as valid as Parochial Agreements.*

XXV. And be it enacted, that every agreement for the commutation of a rent-charge of the tithes of any lands which shall be pending (*l*) at the time of the passing of this act, and which shall be executed before or within six calendar months after the passing of this act by the land owners and tithe owners, or persons claiming to be such owners, whose interest in the said lands and tithes shall not be less than two-thirds of the said lands, two-thirds of the great tithes, and two-thirds of the small tithes of the said lands, and which shall be confirmed (*m*) by the commissioners, under their hands and seal, in the manner hereinafter provided for the confirmation of any parochial agreement, shall be as valid, and the rent-charge agreed to be paid by any such agreement shall be apportioned and charged, as hereinafter provided, among and upon the said lands, as if the agreement had been made and executed at a parochial meeting.

*Consent of Patron to be given to every Agreement for Commutation of Ecclesiastical Tithes.*

XXVI. Provided always, and be it enacted, that in every case in which any tithes shall belong to any ecclesiastical person in right of any spiritual dignity or benefice, no agreement for the commutation

of such tithes made and executed under this act shall be deemed to be executed by the owner of such tithes unless such consent (*n*) thereto be given as is hereinafter mentioned ; (that is to say), in the case of an archbishop or bishop, the consent of the crown signified by the Lord High Treasurer or First Lord Commissioner of the Treasury ; and in case of the incumbent of any other benefice or ecclesiastical dignity, the consent of the patron or person entitled to present to such benefice or dignity in case the same were then vacant ; and every such consent shall be given under the hand of the person giving the same, and shall be annexed to the agreement, and taken to be part of the execution thereof.

*Agreement to be confirmed by the Commissioners.*

XXVII. And be it enacted, that every such agreement, as soon as may be after it shall have been executed by a sufficient number of land owners and tithe owners whose interest in the lands and tithes of the parish respectively shall not be less than two-thirds of the lands subject to tithes, two-thirds of the great tithes, and two-thirds of the small tithes, shall be sent by the chairman of the meeting, or by the person in whose custody it shall then be, to the office of the commissioners (*o*), and the commissioners, by themselves, or by some of the assistant commissioners, shall cause inquiry to be made and shall require such proof as will be satisfactory to them, whether or not the agreement has been made without fraud or collusion, and whether or not it ought to be confirmed ; and if they shall be satisfied that it ought to be confirmed, the commissioners shall confirm (*p*) the agreement (*q*) under their hands and seal, and shall add to such agreement the date of the confirmation, and shall publish the fact

(*n*) The object of this enactment is to guard against any agreements by persons now in the enjoyment of tithes which might prejudice their successors.

(*o*) As a considerable period of time must necessarily be occupied by the commissioners in making inquiry into the regularity, as well as the proper terms of the agreement, as also in making the valuation and apportionment, it is desirable that the agreement should be forwarded with as little delay as possible after it is properly signed.

(*p*) Every agreement relating to tithes belonging to any ecclesiastical person in right of any spiritual dignity, or benefice, must be communicated to the bishop of the diocese before it is confirmed, see s. 28, p. 17.

(*q*) Commissioners may before confirming it require notice of any agreement to be given to rever- sioner, &c., see s. 65, p. 28.

(*l*) By this section pending agreements are put upon the same footing with provisional parochial agreements.

(*m*) See s. 27, p. 16.

of such confirmation and the date thereof within the parish in such manner as to them shall seem fit : and every such confirmed agreement shall be binding on all persons interested in the said lands or tithes (*r*).

*Agreement to be communicated to Bishop of the Diocese previous to its being confirmed.*

XXVIII. Provided always, and be it enacted, that before the commissioners shall confirm any such agreement relating to tithes belonging to any ecclesiastical person in right of any spiritual dignity or benefice, they shall communicate the same to the Bishop of the Diocese for his observations and opinion ; and no such agreement shall be confirmed by such commissioners until four weeks shall have elapsed from the date of the transmission of such agreement to such bishop, unless the said bishop shall sooner signify his approbation of such agreement to the said commissioners.

*Land not exceeding 20 acres, may be given as Commutation for Tithes, &c.*

XXIX. And be it enacted, that any such parochial agreement may be made in manner and form aforesaid for giving to any ecclesiastical owner (*s*), in right of any spiritual benefice or dignity, of any tithes or of any rent-charge for which such tithes shall have been commuted, any quantity not exceeding in the whole twenty (*t*) imperial acres of land by way of commutation for the whole or an equivalent part of the great or small tithes of the parish, or in discharge of or exchange for the whole or an equivalent part of any rent-charge agreed to be paid instead of such tithes, but subject in every case to the provisions hereinafter contained ; and every such agreement shall be made in such form and contain such particulars as the commissioners shall in that behalf direct, specifying the land whereof the tithes or rent-charge for which such tithes shall have been commuted shall be the subject of such agreement, and giving full and sufficient descriptions of the quantity, state of culture, and annual value of the land proposed to be given in exchange for such tithes or rent-charge : Provided, always, that the same consent and confirmation (*u*)

shall be necessary to any such agreement as in the case of an agreement for a rent-charge ; and that in case the said agreement shall not extend to the whole of the tithes of the parish, an agreement or award as hereinafter provided may and shall be made for the payment of a rent-charge in satisfaction of the residue of the said tithes ; and such rent-charge when agreed upon or awarded, or the residue thereof, shall be apportioned in manner hereinafter provided upon all the lands of the parish subject to the payment of tithes, unless otherwise agreed upon by the parties to the said parochial agreement, except the land so given by way of commutation, in like manner as if no agreement for giving land had been made : Provided also, that the land so given shall be free from incumbrances, except leases at improved rent, land tax, or other usual outgoings, and shall not be of tenure, nor of copyhold or customary tenure, subject to arbitrary fine or the render of heriots.

*Commissioners to satisfy themselves of the Title of such Land, &c.*

XXX. And be it enacted, that in every case in which any such agreement for giving land shall be so entered into, the commissioners shall satisfy themselves, in such way and by such evidence as they shall see fit, of the title to the land proposed thereby to be given in exchange for such tithes or rent-charge, and that the same are of the description and value set forth in such agreement, and that such agreement is conformable in every respect to the provisions hereinbefore contained respecting the same ; and the expense attending every such agreement for giving land, and the confirmation thereof, and of investigating the title to the land, shall be borne by the owners of land liable to the payment of tithes within the parish, in such proportions as they may agree, or, in default of agreement, as the commissioners may direct.

*Agreements for giving Land to operate as Conveyances.*

XXXI. And be it enacted, that such agreement for giving land, confirmed by the said commissioners, shall operate as a conveyance of such land to the owner of such tithes or rent-charge, and the land so conveyed shall thereupon vest in and be deemed to be holden by such person or persons, and upon the like uses and trusts

(*r*) Commissioners may require notice to be given to reversioners, remaindermen, or such other persons interested, as they may see fit.

(*s*) Lay-impropriators are not included.

(*t*) This section will enable any incumbent to increase the extent of his glebe by 20 acres.

(*u*) Not only is the consent and confirmation of the commissioners requisite, but they are required

to examine into and approve of the title, see s. 3, p. 17.

in every respect as the tithes or rent-charge in commutation or exchange for which the same shall have been given shall be vested and holden; and for the purpose of making and completing any such agreement the provisions of this act respecting persons under legal disability (*v*) shall apply to every person party to such agreement or in whom any such land shall be vested, and whose concurrence or consent may be necessary to the perfecting thereof, or of the title to such land, as fully as if the same had been here repealed and re-enacted.

**APPORTIONMENT UPON THE RESPECTIVE LANDS OF THE SUM AGREED TO BE PAID BY WAY OF RENT-CHARGE.**

*Appointment of Valuers.*

XXXII. And be it enacted, that at the said meeting or at some adjournment thereof, or at some other parochial meeting to be called in like manner, either before or after the confirmation of the agreement, the owners of land subject to tithes in the said parish, or their agents, present at the meeting, may appoint a valuer or valuers (*w*); and in case the majority in respect of number and the majority in respect of interest shall not agree upon the appointment, then they shall appoint two or such other even number of valuers as shall be then agreed on by such land owners, half of such number to be chosen by a majority in respect of number, and the other half by a majority in respect of interest, of such land owners then present.

*Valuers to apportion the Rent-Charge.*

XXXIII. And be it enacted, that as soon as may be after the chusing of such valuer or valuers, and after the confirmation of the said agreement, the valuer or valuers (*x*) so chosen (*y*) shall apportion (*z*) the total sum agreed to be paid by way of rent-charge instead of tithes, and the expenses of the apportionment, amongst the several lands in the said parish, according to such principles of apportionment as shall be agreed upon at the meeting at which the valuer or valuers shall be chosen, or if no principles shall be then agreed upon for the guidance

of the valuer or valuers, then, having regard to the average titheable produce and productive quality of the lands, according to his or their discretion and judgment, but subject in each case to the provisions hereinafter contained, and so that in each case the several lands shall have the full benefit of every modus (*a*) and composition real, prescriptive and customary payment, and of every exemption from or non-liability to tithes relating to the said lands respectively, and having regard to the several tithes to which the said lands are severally liable; provided that it shall be lawful for the said valuers, when an even number is chosen, by any writing under their hands, to appoint an umpire (*b*) before they proceed upon the business of such apportionment, and the decision of the umpire on the questions in difference between the valuers shall be binding on them, and shall be adopted by them in the apportionment.

*Valuers may enter on Lands for the purpose of valuing Tithes.*

XXXIV. And be it enacted, that the said valuers and umpire (if it shall become necessary for him to act), and their agents or servants, at all reasonable times, may enter upon any of the lands to be included in the apportionment, and make an admeasurement, plan, and valuation of the same, without being subject to any action or molestation for so doing: Provided always, that no valuer or umpire shall be capable of acting until he shall have made and subscribed before the said commissioners, or some assistant commissioner or justice of the peace, a solemn declaration to the same purport and effect as the oath hereinbefore directed to be made by the said commissioners, substituting only the proper description of such person instead of the word commissioner, and adding to his signature the usual place of his residence, which declaration it shall be lawful for the said commissioners, or any assistant commissioner or justice, to administer; and every such declaration so made and subscribed shall be countersigned by the person before whom the same shall have been

(*v*) See s. 15, p. 13.

(*w*) Who may appoint an umpire, see s. 33, p. 13.

(*x*) Valuers and umpire must make and subscribe a declaration, see s. 34, p. 13; may enter on lands to make valuations, &c., see s. 34, p. 18.

(*y*) The apportionment must be made either by valuers so appointed or by the commissioners.

(*z*) If apportionment not made within six months commissioners to apportion, see s. 54, p. 25.

(*a*) The amount of rent-charge apportioned on lands having the benefit of a modus must be estimated on the money value of the modus. Some difficulty may arise where lands pay a modus only whilst in pasture, but become liable to tithes when under the plough. See also s. 44, p. 22.

(*b*) The umpire must be appointed before the valuers proceed to the performance of their duties, he need not act unless the valuers disagree.

made, and shall be sent by him to the office of the commissioners.

*Old Plans and Surveys may be used if the Valuers think proper.*

XXXV. And be it enacted, that the valuer or valuers or umpire may (c), if they think fit, use for the purposes of this act any admeasurement, plan, or valuation previously made of the lands or tithes in question of the accuracy of which they shall be satisfied; and that it shall be lawful for the meeting at which such valuer or valuers shall be chosen to agree upon the adoption for the purposes aforesaid of any such admeasurement, plan, or valuation, and such agreement shall be binding upon the valuer or valuers; Provided always, that three-fourths of the land owners in number and value shall concur therein.

#### COMPULSORY AWARD BY THE COMMISSIONERS IN DEFAULT OF VOLUNTARY AGREEMENTS.

*After 1st. October 1838, Commissioners may ascertain total Value of Tithes in any Parish in which no previous Agreement has been made.*

XXXVI. And be it enacted, that after the first day of *October* one thousand eight hundred and thirty-eight the commissioners shall proceed (d) in manner herein-after mentioned, at such time and in such order as to them shall seem fit, either by themselves or by some assistant commissioner, to ascertain and award the total sum to be paid by way of rent-charge instead of the tithes of every parish in *England* and *Wales* in which no such agreement binding upon the whole parish as aforesaid shall have been made and confirmed as aforesaid: Provided nevertheless, that if any proceeding shall be had towards making and executing any such agreement after the commissioners shall have given or caused to be given notice of their intention to act as aforesaid in such parish, the commissioners may refrain from acting upon such notice, if they shall think fit, until the result of such proceeding shall appear.

(c) The valuers or umpire will only be compelled to use old plans and valuations if three-fourths of the land-owners in number and value present at the meeting at which the valuers were appointed shall concur in requiring them so to do.

(d) By this and the sixteen following sections the commissioners are invested with full powers to effect a compulsory commutation of the tithes in every parish in which the land owners and tithe owners have not embraced the opportunity afforded them of making a voluntary agreement before the 1st October, 1838.

*Value of Tithes to be calculated upon an Average of Seven Years.—Tithes to be valued without Deduction on account of Parochial and County Rates, &c.*

XXXVII. And be it enacted (e), that in every case in which the commissioners shall intend making such award (f), notice thereof shall be given in such manner as to them shall seem fit; and after the expiration of twenty-one days after such notice shall have been given the commissioners or some assistant commissioner shall, except in the cases for which provision is hereinafter made (g), proceed to ascertain (h) the clear average value (after making all just deductions on account of the expenses of collecting, preparing for sale, and marketing, where such tithes have been taken in kind,) of the tithes (i) of the said parish, according to the average of seven years preceding *Christmas* in the year one thousand eight hundred and thirty-five: Provided that if during the said period of seven years, or any part thereof, the said tithes or any part thereof shall have been compounded for or demised to the owner or occupier of any of the said lands in consideration of any rent or payment instead of tithes, the amount of such composition, or rent or sum agreed to be paid instead of tithes, shall be taken as the clear value of the tithes included in such composition, demise, or agreement during the time for which the same shall have been made; and the commissioners or assistant commissioner shall award the average annual value of the said seven years so ascertained as the sum to be taken for calculating the rent-charge to be paid as a permanent commutation of the said tithes: Provided also, that whenever it shall appear

(e) Having now come to that part of the act wherein the mode of calculating the value of tithes to be adopted by the commissioners in cases of compulsory commutation is set out, it becomes material to observe, that the tithe-payers and tithe-owners neglecting to make a voluntary agreement, lose the advantage of fixing the amount to be paid, and also of apportioning it in that way which they might think best. The commissioners are bound by the rules here laid down, and can only deviate in certain special cases.

(f) Expenses of award to be paid by land owners, see s. 74, p. 31.

(g) How to modify extreme cases, see s. 38, p. 20.

(h) How the tithe of hops, fruit, and garden produce to be valued, see s. 40, p. 21; how the tithe of coppice wood to be valued, see s. 41, p. 21; as to land exempt by reason of having been converted from barren heath, or waste land, and as to glebe, see s. 43, p. 22; as to moduses &c., see s. 44, p. 22.

(i) Commissioners may hear and determine disputes touching the right to tithes, moduses, &c., see s. 45, p. 22.

to the commissioners that the party entitled to any such rent or composition shall in any one or more of the said seven years have allowed and made any abatement from the amount of such rent or composition on the ground of the same having in any such year or years been higher than the sum fairly payable by way of composition for the tithe, but not otherwise, then and in every such case such diminished amount, after making such abatement as aforesaid, shall be deemed and taken to have been the sum agreed to be paid for any such year or years: Provided also, that in estimating the value of the said tithes the commissioners or assistant commissioner shall estimate the same without making any deduction therefrom on account of any Parliamentary, parochial, county, and other rates, charges, and assessments to which the said tithes are liable; and whenever the said tithes shall have been demised or compounded for on the principle of the rent or composition being paid free from all such rates, charges, and assessments, or any part thereof, the said commissioners or assistant commissioner shall have regard to that circumstance, and shall make such an addition on account thereof as shall be an equivalent (*j*).

*Commissioners in certain Cases may increase or diminish the Sum to be paid for Commutation.*

XXXVIII. Provided always, and be it enacted, that in case notice in writing under the hand of any patron, or the hands of any land owners or title owners whose interest in the lands or tithes of the parish shall not be less than one-half of the lands subject to tithes, one-half of the great tithes or one-half of the small tithes of the parish shall be given to the commissioners or assistant commissioner acting in that behalf, within one calendar month next after the notice of the intention to make an award shall have been given as aforesaid, that the average value to be ascertained as aforesaid will not fairly represent the sum which ought to be taken for calculating a permanent commutation of the great or small tithes of the said parish, the commissioners shall have power (*k*) to diminish or increase the sum to be so taken by a sum amounting to not more than

one-fifth part of the average value ascertained as aforesaid: Provided always, that every case which shall appear to the commissioners to be fraudulent or collusive, or which, by reason of the length of time which shall have elapsed since the making of any composition then in force, or which, by reason of the peculiar interest in the lands or tithes of either of the parties to any composition, or by reason of any other special circumstances, ought in the judgment of the commissioners to be separately adjudicated upon, shall be reserved for separate adjudication as hereinafter provided; and the commissioners shall certify and report to one of his Majesty's principal secretaries of state, under their hands and seals, before the first day of May in the year one thousand eight hundred and thirty-eight, in what manner the discretion hereby vested in them ought in their judgment to be exercised, and shall in the said report lay down such rules for the guidance of the assistant commissioners as may to them seem expedient, and such report shall be laid before Parliament within six weeks after the same shall have been received, or after the meeting of Parliament; and, unless Parliament shall otherwise provide, such rules shall be observed by the said commissioners and assistant commissioners in the exercise of the discretion hereby vested in the commissioners.

*Special Adjudications, how to be made.*

XXXIX. And be it enacted, that the commissioners shall from time to time report to one of his Majesty's principal secretaries of state, under their hands and seals, all the cases which under the power hereinbefore reserved to them in that behalf shall have been reserved for separate adjudication, and shall state in every such report the reasons for so reserving every case mentioned therein, and the commissioners shall in every such case award the rent-charge to be paid as a permanent commutation for tithes, having regard to the average rate which shall be awarded in respect of lands of the like description and similarly situated in the neighbouring parishes: Provided always, that a draft of such intended award, with a copy of so much of the said report as is applicable to such award, shall be deposited in the parish, and the commissioners, or an assistant commissioner to be specially appointed by the commissioners for that purpose, shall hear and determine all objections to the award in the like manner as is herein provided in an ordinary

(*j*) The real value of the title must of course include the amount of all rates, charges, &c.

(*k*) The discretionary powers given in this and the following section can only be exercised by the commissioners in case of compulsory commutations.

case of award, and the commissioners shall have power thereupon to amend the draft of the said award accordingly.

*How the Tithe of Hops, Fruit, and Garden Produce is to be valued.*

XL. And be it enacted, that in case any of the lands in the parish shall be hop-grounds (*l*), orchards or gardens, and notice shall be given by the owner thereof to the commissioners or assistant commissioner acting in that behalf, that the tithes thereof should be separately valued, the commissioners or assistant commissioner shall estimate the value of the tithes thereof according to the average rate of composition for the tithes of hops, fruit and garden produce respectively, during seven years preceding *Christmas* in the year one thousand eight hundred and thirty-five, within a district to be assigned in each case by the commissioners or assistant commissioner, and estimating the same as chargeable to all Parliamentary, parochial, county, and other rates, charges and assessments to which the said tithes are liable, and shall add the value so estimated to the value of the other tithes of the parish ascertained as aforesaid.

*How the Tithe of Coppice Wood is to be valued.*

XLI. And be it enacted, that in case any of the lands in the parish shall be coppices, and notice (*m*) shall be given by the owner thereof, or by the owner of the tithes thereof, to the commissioners or assistant commissioner acting in that behalf that the tithes thereof should be separately valued, the commissioners or assistant commissioner shall estimate the value of the tithes thereof with a due regard to the average value, estimated according to the best of their judgment, of coppice wood of the same kind cut during the said period of seven years in that parish and the neighbouring parishes, estimating the same as chargeable to all Parliamentary, parochial, county, and other rates, charges, and assessments to which the said tithes are liable, and shall add the clear value of the tithes so estimated to the value of the other tithes of the parish

ascertained as aforesaid; and the commissioners shall, in the report which they are herein-before required to make to one of his Majesty's principal secretaries of state before the first day of *May* in the year one thousand eight hundred and thirty-eight, lay down rules for the guidance of the assistant commissioners in estimating the value of the tithes of coppice wood, and, unless parliament shall otherwise provide, such rules shall be observed by the said commissioners and assistant commissioners.

*Provision for the Change of Culture of Hop Grounds and Market Gardens.*

XLII. And be it enacted, that the amount which shall be charged by any such apportionment as herein-after provided upon any hop grounds or market gardens in any district so to be assigned shall be distinguished into two parts, which shall be called the ordinary charge and the extraordinary charge (*n*), and the extraordinary charge shall be a rate *per* imperial acre, and so in proportion for less quantities of ground, according to the discretion of the valuers or commissioners or assistant commissioner by whom the apportionment shall be made as aforesaid; and lands whereof the tithes shall have been commuted under this act, and which shall cease to be cultivated as hop grounds or market gardens at any time after such commutation, shall be charged after the thirty-first day of *December* next following such change of cultivation only with the ordinary charge upon such lands; and all lands in any such district the tithes whereof shall have been commuted under this act, and which shall be newly cultivated as hop grounds or market gardens at any time after such commutation, shall be charged with an additional amount of rent-charge *per* imperial acre, equal to the extraordinary charge *per* acre upon hop grounds or market gardens respectively in that district; Provided always, that no such additional amount shall be charged or payable during the first year, and half only of such additional amount during the se-

(*l*) The owner of hop-grounds or market gardens should not omit to give notice to the commissioners to have the tithes separately valued, in order that he may avail himself of the provision with respect to change of cultivation, s. 42, p. 21.

(*m*) In almost every case of coppice wood a separate valuation will be called for either by the tithe owner or tithe payer, as a calculation upon the average of seven years could only be fair where the cutting takes place regularly once during that period.

(*n*) It is much to be regretted that there should be a necessity for making an enactment so completely at variance with the principle upon which a commutation of tithes has been sought. The subject was one excessively difficult to be dealt with, and is now fixed upon a basis perhaps as satisfactory as the circumstances admit. The legislature should have long since interfered in the case of hop grounds and market gardens, it never was intended that a tenth of the produce arising from the investment of such immense capital as is requisite in this species of cultivation, should be taken.

cond year, of such new cultivation; and an additional rent-charge by way of extraordinary charge upon hop grounds and market gardens, newly cultivated as such beyond the limits of every district in which any extraordinary charge for hop grounds or market gardens respectively shall have been distinguished as aforesaid at the time of the commutation, shall be charged by the commissioners at the time of such new cultivation, upon the request of any person interested therein, if such new cultivation shall have taken place during the continuance of the commission of the said commissioners, and after the expiration of the commission shall be charged in such manner and by such authority as parliament shall direct, and shall be payable and recoverable in like manner and subject to the same incidents in all respects as an extraordinary charge charged upon any hop grounds or market gardens at the time of commutation.

*Provision for valuing Tithes of Lands to which the Average of Seven Years cannot apply.*

XLIII. And be it enacted, that in case any of the lands in the parish shall, during any part of the said period of seven years preceding *Christmas* in the year one thousand eight hundred and thirty-five, have been exempted from payment of tithes by reason of having been inclosed under any Act of Parliament or converted from barren heath (*o*) or waste ground, or by reason of being glebe (*p*) lands or of having been heretofore parcel of the possessions of any privileged order (*q*), and notices shall have been given as last aforesaid to the commissioners or assistant commissioner acting in that behalf that the tithes thereof should be separately valued, the commissioners or assistant commissioner shall estimate the value of the tithes thereof according to the average value which shall be ascertained as aforesaid in respect of lands of the like description and quality in that parish and the neighbouring parishes, or as near thereto as the circumstances of each case may in their judgment require, and estimating the same as chargeable to all Parliamentary, parochial, county, and other rates, charges, and assessments to which the said tithes

(*o*) By 2 & 3 Ed. 6, c. 13.

(*p*) And therefore exempt from tithes whilst in the occupation of the incumbent.

(*q*) There are many estates which formerly belonged to privileged orders which are still exempt from tithes whilst in the occupation of the owner, but become liable when let to a tenant.

are liable, and shall add the value so estimated to the value of the other tithes of the parish ascertained as aforesaid.

*Moduses, &c. how to be allowed for in the Award.*

XLIV. (*r*). And be it enacted, that if any modus or composition real, or prescriptive or customary payment, shall be payable instead of the tithes of any of the lands or produce thereof in the said parish, the commissioners or assistant commissioner shall in such case estimate the amount of such modus, composition, or payment as the value of the tithes payable in respect of such lands or produce respectively, and shall add the amount thereof to the value of the other tithes of the parish ascertained as aforesaid, and shall also make due allowance for all exemptions from or non-liability to tithes of any lands or any part of the produce of such lands: Provided also, that if it shall appear to the said commissioners or assistant commissioner that any question concerning any modus or composition real, prescriptive or customary payment, or claim of exemption from or non-liability to the payment of tithes relating to the lands in question, shall have been decided by competent authority before the making of the said award, the commissioners or assistant commissioner shall act on the principle established by such decision, and shall make their award as if such decision had been made at the beginning of the said period of seven years (*s*).

*Commissioners may hear and determine Disputes;*

XLV. And be it enacted, that if any suit (*t*) shall be pending touching the right to any tithes, or if there shall be any question as to the existence of any modus or composition real, or prescriptive or customary payment, or any claim of exemption from or non-liability under any circumstances to the payment of any tithes in respect of any lands or any kind of produce, or touching the situation or boundary of

(*r*) A similar provision in the case of parochial agreements is made in sections 21 and 33.

(*s*) That is, if a modus has been established in the last year of the seven it will be taken as extending over the whole of the seven years, if on the other hand the liability to tithes has been established, the land will be taken as having been subject to tithes during the whole period.

(*t*) Disputes pending before the passing of this act, or arising before the 1st of October, 1838, may be settled by a reference to arbitrators; such as occur after the commissioners interfere, or remain unsettled on the 1st October, 1838, are to be decided by them or by an assistant-commissioner.



any lands, or if any difference shall arise whereby the making of any such award by the commissioners or assistant commissioner shall be hindered, it shall be lawful for the commissioners or assistant commissioner to appoint a time and place in or near the parish for hearing and determining the same ; and the decision (*u*) of the commissioners or assistant commissioner shall be final and conclusive on all persons, subject to the provisions (*v*) hereinafter contained.

*Subject to Appeal by an Issue at Law ;—or by taking the Opinion of a Court of Law thereon.*

XLVI. Provided always, and be it enacted, that any person claiming to be interested in any lands or in the tithes thereof who shall be dissatisfied with any such decision of the commissioners or assistant commissioner may, if the yearly value of the payment to be made or withholden according to such decision shall exceed the sum of twenty pounds, cause an action (*w*) to be brought in any of his Majesty's courts of law at *Westminster* against the person in whose favour such decision shall have been made, within three calendar months next after such decision shall have been notified in writing, in such manner as the commissioners or assistant commissioner shall direct, to the parties interested therein or to their known agents, in which action the plaintiff shall deliver a feigned issue, whereby such disputed right may be tried, and shall proceed to a trial at law of such issue at the sittings after the term or at the assizes then next or next but one after such action shall have been commenced to be holden for the county within which such lands or the greater part thereof are situated, with liberty nevertheless for the court in which the same shall have been commenced or any judge of his Majesty's courts of law at *Westminster* to extend the time for going to trial therein, or to direct the trial to be in another county if it shall seem fit to such court or judge so to do ; and every defendant in any such action shall enter an appearance thereto, and accept such issue ; but in case the parties shall differ as to the form of such issue, or in case the defendant shall fail to enter such appearance or accept such issue, then the same shall be settled

under the direction of the court in which the action shall be brought, or by any judge of his Majesty's courts of law at *Westminster*, and the plaintiff may proceed thereon in like manner as if the defendant had appeared and accepted such issue ; and the parties in such action shall produce to each other and their respective attorneys or counsel, at such time and place as any judge may order before trial, and also to the court and jury upon the trial of any such issue, all books, deeds, papers, and writings, terriers, maps, plans, and surveys relating to the matters in issue in their respective custody or power ; and it shall be lawful for the judge by whom any such action shall be tried, if he shall think fit, to direct the jury to find a verdict, subject to the opinion of the court upon a special case ; and the verdict which shall be given in any such action, or the judgment of the court upon the case subject to which the same may be given, shall be final and binding upon all parties thereto, unless the court wherein such action shall be brought shall set aside such verdict and order a new trial to be had therein, which it shall be lawful for the said court to do, if it shall see fit : Provided also, that in case any such decision shall involve a question of law only, and the parties in difference shall be agreed upon the facts relating thereto, and whereon such decision shall have been founded, the said commissioners or assistant commissioner, at the request of the person dissatisfied, (such request to be made in writing within three calendar months after such decision, and at least fourteen days previous notice in writing of such request to be given in like manner to the other parties in difference or to their known agents,) shall direct a case to be stated for the opinion of such one of his Majesty's courts of law at *Westminster* as the commissioners or assistant commissioner shall think fit, which case shall be settled by them or him or under their or his direction in case the parties differ about the same, and may be set down for argument and be brought before the court in like manner as other cases are brought before the court ; and the decision of such court upon every case so brought before it shall be binding upon all parties concerned therein : Provided always, that after such verdict given and not set aside by the court, or after such decision of the court, the said commissioners or assistant commissioner shall be bound by such verdict or decision ;

(*u*) Subject to an appeal to a court of law, where the sum in dispute exceeds 20*l*. See s. 46, p. 23.

(*v*) Proceedings not to abate by the death of parties, see s. 47, p. 24.

(*w*) If a party die after the decision of commissioners, and before action brought, the action nevertheless to be carried on in the name of the party, see s. 48, p. 24.

and the costs of every such action, or of stating such case and obtaining a decision thereon, shall be in the discretion of the court in or by which the same shall be decided, which may order the same to be taxed by the proper officer of the court, and the like execution may be had for the same as if such costs had been recovered upon a judgment of record of the said court.

*Proceedings not to abate by Death of Parties.*

XLVII. And be it enacted, that no proceeding (*x*) of or before the commissioners or any assistant commissioner, or in any action, or in any case stated, or reference in pursuance of this act, shall abate or cease by reason of the death of any person interested therein.

*In case of Deaths of Parties before Actions brought, &c. the same to be carried on and defended in their Names.*

XLVIII. And be it enacted, that if any person in whose favour any such decision of the commissioners or any assistant commissioner shall have been made shall die before any such action shall have been brought or case stated, and before the expiration of the time herein-before limited for that purpose, it shall be lawful for every person who might have brought such action, or have had such case stated, against the person so dying, to bring or have the same, within the time so limited as aforesaid, nominally against such person as if living, and to serve the said commissioners or assistant commissioner with process and notices relating thereto in the same manner as the person deceased might have been served therewith if living; and it shall be lawful for every person entitled to the benefit of such decision as aforesaid, or, in case of any such person being a minor, idiot, lunatic, feme covert, beyond the seas, or under any other legal disability, the guardian, trustee, committee of the estate, husband, or attorney respectively, or in default thereof such person as may be nominated for that purpose by the commissioners, and whom they are hereby empowered to nominate under their hands and seal, to appear and defend such action or argue such case; and proceedings shall be had therein in the same manner, and the rights of all persons shall be equally bound and concluded by the

(*x*) This clause extends to all proceedings, whether arising out of voluntary agreements and references, or after the compulsory interference of the commissioners.

event of such action or the decision upon such case, as if such person had been living; and the costs of every such action or case shall be in the discretion of the court as aforesaid.

*Statutes of Limitation not to be affected.*

XLIX. Provided always, and be it enacted, that nothing in this act contained shall revive any right to tithes which now is or hereafter shall be barred by any law in force for shortening the time required in claims of modus decimandi or exemption from or discharge from tithes, or for the limitation of actions and suits relating to real property (*y*).

*Commissioners to award Total Sum to be paid for the Tithes of the Parish.*

L. And be it enacted, that as soon as all such suits and differences shall have been decided, or if there shall have been no suits or differences then as soon as the commissioners or assistant commissioner shall have ascertained and estimated as aforesaid the total value of all the tithes of the said parish, the commissioners or assistant commissioner shall frame the draft of an award (*z*), declaring that the sum ascertained as aforesaid shall be the amount of the rent-charge to be paid in respect of the tithes of the said parish, and every such draft shall contain all the particulars herein-before required to be inserted in any parochial agreement or any schedule thereto; Provided always, that no such award shall be made for giving land (*u*) instead of the tithes of the parish.

*Commissioners may hear and determine Objections to the Award.*

LI. And be it enacted, that as soon as the said draft shall have been made by the commissioners or assistant commissioner they or he shall deposit a copy of the same and of any special report thereunto annexed at some convenient place within the said parish for the inspection of all persons interested in the said lands or tithes, and shall forthwith give notice in such manner as to the commissioners shall seem fit where the said copy may be inspected, and shall

(*y*) 2 & 3 W. 4, c. 100. 3 & 4 W. 4, c. 27.

(*z*) Meeting to be held by commissioners to hear objections to the award, see s. 51. p. 24.

(*u*) Land may be given instead of tithes by a parochial agreement, see s. 29, p. 17. By sec. 62, p. 27, land owners may after the interference of the commissioners and before confirmation of the apportionment make an arrangement with the owners of ecclesiastical tithes to give twenty acres of land in lieu of tithes.

also in such notice appoint some convenient place and time (the first not earlier than twenty-one days from the first giving of such notice) for holding a meeting to hear objections to such intended award by any person interested therein; and the said commissioners or assistant commissioner at such meeting as aforesaid shall hear and determine any objections which may be then and there made to the said intended award, or adjourn the further hearing thereof, if they or he shall think proper, to a future meeting, and may, if they or he shall see occasion, direct any further valuation of the lands or tithes or any of them, and from time to time fix further meetings for the hearing and determining of objections, of which further meetings, when not holden by adjournment, notice shall be given in manner herein-before directed with regard to the original meeting; and when the said commissioners or assistant commissioner shall have heard and determined all such objections they or he shall amend the draft of such award accordingly, if they or he shall see occasion.

*Award to be confirmed by the Commissioners.*

LII. And be it enacted, that as soon as the commissioners or assistant commissioner shall have made such amendments in the draft of the award as to them or him shall seem necessary, they or he shall cause the same to be fairly written, and shall sign and send it to the office of the commissioners, and the commissioners shall satisfy themselves that all the proceedings incident to the making of such award have been duly performed, and if they shall think that the award ought to be confirmed shall confirm (b) the same under their hands and seal, and shall add to the award the date of such confirmation, and shall publish the fact of such confirmation and the date thereof in the parish, in such manner as to them shall seem fit; and every such confirmed award shall be binding on all persons interested in the said lands or tithes.

**VOLUNTARY APPORTIONMENT BY THE LAND OWNERS OF THE RENT-CHARGE COMPULSORILY AWARDED BY THE COMMISSIONERS.**

*Commissioners to summon a Parochial Meeting to appoint Valuers.*

LIII. And be it enacted, that as soon as the commissioners shall have confirmed any

such award, the commissioners or some assistant commissioner shall call a parochial meeting of the owners of land subject to tithes in the said parish, for the purpose of choosing valuers to apportion the amount so awarded among the lands of the parish, and shall give notice thereof in writing under their or his hand, to be fixed at least twenty-one days before such meeting on the principal outer door of the church or in some public and conspicuous place within the parish; and valuers or a single valuer may be chosen at such meeting by the land owners then present in like manner, and the valuers so chosen shall act with the same powers (c) and be subject to the same provisions, as if the rent-charge so awarded had been agreed to at a parochial meeting of the land owners and tithe owners of the parish, and the valuers had been thereupon chosen as aforesaid.

**COMPULSORY APPORTIONMENT BY COMMISSIONERS.**

*If Valuation not completed in Six Months Commissioners to apportion.*

LIV. And be it enacted, that if upon the expiration of six calendar months after the day of the date of the confirmation of any agreement or award no valuer or valuers shall have been appointed, or the apportionment by such valuers or valuer shall not have been made and sent to the office of the commissioners as herein-after provided, it shall be lawful for the commissioners or some assistant commissioner to apportion the rent-charge previously agreed or awarded to be paid among the lands of the said parish, having regard to the average titheable produce and productive quality of the said lands according to the discretion and judgment of the commissioners or assistant commissioner, but subject to the provisions herein-after contained, and so that the several lands may have the full benefit in each case of every modus, composition real, prescriptive and customary payment, and of every exemption from or non-liability to tithes relating to the said lands respectively, and having regard to the several tithes to which the said lands are severally liable.

**GENERAL FORM OF APPORTIONMENT.**

LV. And be it enacted, that a draught of every apportionment shall be made, and shall set forth the agreement or award, as

(b) The confirmation of the award is the same in effect as the confirmation of the parochial agreement.

(c) See sections 32, 33, 34, 35.

the case may be, upon which such apportionment is founded, and every schedule thereunto annexed; and the said draught or some schedule thereunto annexed, whether made by or under the direction of the valuers or commissioners or assistant commissioner, shall state the name or description and the true or estimated quantity in statute measure of the several lands to be comprised in the apportionment, and shall set forth the names and description of the several proprietors and occupiers thereof, and whether the said several lands are then cultivated as arable, meadow, or pasture land, or as wood land, common land, or howsoever otherwise, and shall refer, by a number set against the description of such lands, to a map or plan to be drawn on paper or parchment, and the same number shall be marked on the representation of such lands in the said map or plan; and the draught of the apportionment shall also state the amount charged upon the said several lands and to whom and in what right the same shall be respectively payable.

CONVERSION OF MONEY RENT-CHARGE INTO CORN RENT-CHARGE.—(See also s. 67).

*Comptroller of Corn Returns to publish Average Price of Corn.*

LVI. And be it enacted, that immediately after the passing of this Act, and also in the month of *January* in every year, the comptroller of corn returns for the time being, or such other person as may from time to time be in that behalf authorized by the Privy Council, shall cause an advertisement to be inserted in the *London Gazette*, stating what has been, during seven years ending on the *Thursday* next before *Christmas* day then next preceding, the average price of an imperial bushel of *British* wheat, barley, and oats, computed from the weekly averages of the corn returns.

*Rent-Charges to be valued according to the Average Price of Corn.*

LVII. And be it enacted, that every rent-charge charged upon any lands by any such intended apportionment shall be deemed at the time of the confirmation of such apportionment, as herein-after provided, to be of the value of such number of imperial bushels and decimal parts of an imperial bushel of wheat, barley, and oats as the same would have purchased at the

prices so ascertained by the advertisement to be published immediately after the passing of this act, in case one-third part of such rent-charge had been invested in the purchase of wheat, one-third part thereof in the purchase of barley, and the remaining third part thereof in the purchase of oats, and the respective quantities of wheat, barley, and oats so ascertained shall be stated in the draft of every apportionment.

GENERAL PROVISIONS APPLICABLE TO EVERY APPORTIONMENT.—(See also s. 68).

*Rent-Charge may be specially apportioned.*

LVIII. And be it enacted, that it shall be lawful for the valuers or commissioners or any assistant commissioner, upon the request of any land owner, at any time before (*f*) the confirmation of the apportionment, to apportion the whole rent-charge intended to be charged upon any lands of such land owner held under the same title and for the same estate in the same parish, specially (*g*) upon the several closes or portions of such lands or according to an acreable rate or acreable rates, upon lands of different quality, in such manner and in such proportion, and to the exclusion of such of them, as the land owner, with the consent of the person entitled to such rent-charge, may direct, and the particulars of every such special apportionment shall be included in the draught of the apportionment and taken to be a part thereof: Provided always, that the extra expences of every such special apportionment shall be borne by the party at whose instance the same shall have been made, and shall be recoverable as other costs of the apportionment are recoverable, and that no close of land shall be charged with any rent-charge or share of rent-charge on account of the tithes of any other lands, unless the value of such lands shall be at least three times the value of the whole rent-charge upon such lands.

*Commissioners may employ Surveyors.—Commissioners to have the power of Valuers as to Entry in Lands, &c.*

LIX. And be it enacted, that for the purpose of making any such apportionment

(*f*) See s. 72, as to the alteration of apportionment after confirmation.

(*g*) This is a most valuable enactment, as it will facilitate the redemption of tithes, by enabling landowners to charge particular lands of sufficient value with the rent-charge, payable out of the whole estate.

as well as for the purpose of making any award as herein-before provided, the commissioners and assistant commissioner may employ such land surveyors and tithe valuers as to them shall seem fit, and may order them to be paid for valuing, surveying, mapping, and planning after any rate not exceeding two guineas to every such person for every day that he shall have been so employed, and may assess the same as part of the expences of making their award or apportionment respectively; and the said commissioners and assistant commissioners, and the land surveyors and tithe valuers employed by them respectively, shall have all the powers and be subject to all the provisions herein-before enacted concerning the valuers appointed at a parochial meeting, except that they shall not be bound to adopt any principles of apportionment agreed to at any parochial meeting: Provided always, that it shall be lawful for such commissioners and assistant commissioners to make any agreement (*h*) with any such land surveyors or tithe valuers for the payment to the same of one sum for the whole duty or any part thereof to be performed by them respectively.

*Apportionment to be signed by the Person making it, and sent with the Plan to the Commissioners.*

LX. And be it enacted, that the draught of every apportionment, whether made by or under the direction of the commissioners or any assistant commissioner or by any valuer or valuers appointed as herein-before (*i*) is provided, shall be signed by the person by or under whose direction it shall have been made, and shall be sent (*j*), together with the map or plan therein referred to, by the person by whom it is signed to the office of the commissioners, or otherwise to some assistant commissioner, as the commissioners may direct, with such proof as the commissioners may require that every proceeding incident to the making of such draught or apportionment has been duly performed.

*Commissioners may hear and determine Objections to Apportionment.*

LXI. And be it enacted, that as soon as

(*h*) The provisions in this clause respecting payment to valuers only applies to such as are employed by the commissioners, land owners will of course make their own arrangements with valuers engaged by them.

(*i*) See sections 32, 33, 54 and 59.

(*j*) If not sent commissioners may apportion the rent-charge, see s. 54, p. 25.

the draught of any such apportionment, verified as aforesaid, shall have been sent to the commissioners they shall cause a copy of the same to be deposited at some convenient place within the said parish for the inspection of all persons interested (*k*) in the said lands or tithes, and shall forthwith cause notice to be given, in such manner as to them shall seem fit, where the said copy may be inspected, and shall also in such notice appoint some convenient place and such times as they shall think necessary (the first not earlier than twenty-one days from the first giving of such notice,) for holding a meeting to hear objections to the intended apportionment by any person interested therein, and the said commissioners or some assistant commissioner at such meeting as aforesaid shall hear and determine any objections which may be then and there made to the said intended apportionment, or adjourn the further hearing thereof, if they or he shall think proper, to a future meeting, and may, if they or he shall see occasion, direct any further valuation of the lands or any of them, and from time to time fix further meetings for the hearing and determining of objections, of which further meetings, when not holden by adjournment, notice shall be given in manner herein-before directed with regard to the original meeting; and when the said commissioner or assistant commissioner shall have heard and determined all such objections, they and he are and is hereby required to cause such apportionment to be amended accordingly if they or he shall see occasion.

*Owners of Lands chargeable with Rent-Charge may give Laud instead thereof.*

LXII. And be it enacted, that it shall be lawful for the owner of any lands chargeable with any such rent-charge to agree, at any time before the confirmation of any such instrument of apportionment, with any ecclesiastical person being the owner of the tithes thereof in right of any spiritual benefice or dignity, for giving land instead of the rent-charge charged or about to be charged upon his lands; and every such agreement shall be made under the hands and seals of the land owner and tithe owner, and shall contain all the particulars herein-before required to be inserted in a paro-

(*k*) By sec. 60, p. 28, after confirmation the award or apportionment cannot be questioned, it therefore behoves parties interested to inspect the draft of the apportionment at an early period so as to make any objection in due time.

chial agreement for giving land instead of tithes or rent-charge: Provided always, that no such tithe owner shall be enabled to take or hold more than twenty imperial acres of land in the whole by virtue of any such agreement or agreements made in the same parish; and the same consent and confirmation relatively to the lands and tithes comprised in the said agreement shall be necessary to any such agreement as in the case of a parochial agreement for giving land instead of tithes; and all the provisions herein-before contained concerning a parochial agreement for giving land shall be applicable to every such agreement as herein-before last mentioned, so far as concerns the lands and tithes comprised in the said agreement: Provided also, that any amendment which shall be made in the draft of apportionment before confirmation thereof, and subsequent to any such agreement for giving land instead of rent-charge, whereby the charge upon the lands referred to in such agreement shall be altered, shall be taken to annul the execution of such agreement for giving land, and any consent which may have been necessary thereunto.

*Confirmation by the Commissioners.*

LXIII. And be it enacted, that after such proceedings as aforesaid shall have been had, and all such objections, if any shall have been finally disposed of, the commissioners or assistant commissioner shall cause the instrument of apportionment to be ingrossed on parchment, and shall annex the map or plan thereunto belonging to the ingrossed instrument of apportionment, and shall sign the instrument of apportionment and the map or plan, and shall send both to the office of the commissioners, and if the commissioners shall approve the apportionment they shall confirm the instrument of apportionment (*l*) under their hands and seal, and shall add thereunto the date of such confirmation (*m*).

*Transcripts of the Award to be sent to the Registrar of the Diocese and to the Incumbent and Churchwardens.*

LXIV. And be it enacted, that two copies of every confirmed instrument of apportionment, and of every confirmed agreement for giving land instead of any tithes or rent-charge, shall be made and

sealed with the seal of the said commissioners, and one such copy shall be deposited in the registry of the diocese within which the parish is situated, to be there kept among the records of the said registry, and the other copy shall be deposited with the incumbent and church or chapel wardens of the parish for the time being, or such other fit persons as the commissioners shall approve, to be kept by them and their successors in office with the public books, writings, and papers of the parish, and all persons interested therein may have access to and be furnished with copies of or extracts from any such copy on giving reasonable notice to the person having custody of the same, and on payment of two shillings and sixpence for such inspection, and after the rate of three-pence for every seventy-two words contained in such copy or extract; and every recital or statement in or map or plan annexed to such confirmed apportionment or agreement for giving land, or any sealed copy thereof, shall be deemed satisfactory evidence of the matters therein recited or stated, or of the accuracy of such plan.

*Commissioners may require Notice of Agreements or Awards to be given to Reversioner.*

LXV. And be it enacted, that the commissioners, if they shall see fit, before confirming any agreement (*n*), award (*o*), or apportionment (*p*), may require notice thereof to be given in such manner as they shall direct to the person next in remainder, reversion, or expectancy of an estate of inheritance in any land or tithes, or any other person to whom they may think notice ought to be given, and may by themselves or by some assistant commissioner hear and determine any objection made to such confirmation by any person interested therein, and may direct any award or apportionment to be amended accordingly.

*Agreements &c. not to be questioned after Confirmation.*

LXVI. And be it enacted, that no confirmed agreement, award, or apportionment shall be impeached after the confirmation thereof by reason of any mistake or informality therein or in any proceeding relating thereunto.

CONVERSION OF CORN RENT-CHARGE INTO MONEY RENT-CHARGE.—(See also sections 56 and 57).

*Lands to be discharged from Tithes, and Rent-*

(*l*) Apportionment may be altered after confirmation by the commissioners of land tax, at the request of the owners of the land, see s. 72, p. 31.

(*m*) This is in fact the completion of the commutation.

(*n*) See s. 27, p. 16.

(*o*) See s. 51, p. 24.

(*p*) See s. 63, p. 28.

*charge paid in lieu thereof.*—Payment of *Rent-charge on Reclaimed Lands to be postponed until Tithes would have been due.*

LXVII. And be it enacted, that from the first day of *January* next following the confirmation of every such apportionment (*q*) the lands of the said parish shall be absolutely discharged from the payment of all tithes, except so far as relates to the liability of any tenant at rack rent dissenting as hereinafter (*r*) provided, and instead thereof there shall be payable thenceforth to the person in that behalf mentioned in the said apportionment a sum of money equal in value, according to the prices ascertained by the then next preceding advertisement, to the quantity of wheat, barley, and oats respectively mentioned therein to be payable instead of the said tithes, in the nature of a rent-charge issuing out of the lands charged therewith; and such yearly sum shall be payable by two equal half-yearly payments on the first day of *July* and the first day of *January* in every year, the first payment, except in the case of barren reclaimed lands as hereinafter provided, being on the first day of *July* next after the lands shall have been discharged from tithes as aforesaid, and such rent-charge may be recovered at the suit of the person entitled thereto, his executors or administrators, by distress and entry as herein-after (*s*) mentioned; and after every first day of *January* the sum of money thenceforth payable in respect of such rent-charge shall vary so as always to consist of the price of the same number of bushels and decimal parts of a bushel of wheat, barley, and oats respectively, according to the prices ascertained by the then next preceding advertisement, and any person entitled from time to time to any such varied rent-charge shall have the same powers for enforcing payment thereof as are herein contained concerning the original rent-charge: Provided always, that nothing herein contained shall be taken to render any person whomsoever personally (*t*) liable to the payment of any

such rent-charge: Provided always that the rent-charge which shall be apportioned upon any lands in the said parish which during any part of the said period of seven years preceding *Christmas* one thousand eight hundred and thirty-five were exempted from tithes by reason of having been inclosed under any Act of Parliament, or converted from barren heath or waste ground (*u*), shall be payable for the first time on the first day of *July* or first day of *January* next following the confirmation of the apportionment which shall be nearest to the time at which tithes were or would have become payable for the first time in respect of the said lands if no commutation thereof had taken place.

GENERAL PROVISIONS APPLICABLE TO EVERY APPOINTMENT.—(See also sections 55, 58 to 66 inclusive, and 68).

*Lands to be free from Tithes when Lands are given in lieu thereof.*

LXVIII. And be it enacted, that from the first day of *January* next following the confirmation of every parochial or other agreement for giving land instead of any tithes or rent-charge, the lands of the parish in which any such agreement shall be made shall be absolutely discharged (*v*) from the payment of the tithes or rent-charge for which it shall have been agreed that such land shall be given.

RENT-CHARGE LIABLE TO THE SAME RATES AND INCUMBRANCES AS TITHES.

LXIX. And be it enacted, that every rent-charge payable as aforesaid instead of tithes shall be subject to all parliamentary parochial, and county and other rates (*w*), charges, and assessments, in like manner as the tithes commuted for such rent-charge have heretofore been subject.

*How Rates and Charges are to be recovered.*

LXX. And be it enacted, that all rates and charges to which any such rent-charge is liable shall be assessed upon the occupier of the lands out of which such rent-charge shall issue, and in case the same shall not be sooner paid by the owner of the rent-charge for the time being may be re-

(*q*) The tithes will of course be payable up to the 1st *January*, and the first payment of the rent-charge will become due upon the 1st *July* following.

(*r*) In reference to dissent of tenants at rack-rent, see s. 79, p. 32.

(*s*) See sections 81, 82.

(*t*) The remedy for the recovery of rent-charge in arrear is by distress and entry only, and where lands are washed away by the sea, or otherwise destroyed by natural casualty, the rent-charge is gone: see s. 85, p. 34.

(*u*) Barren heath, or waste land, brought into cultivation, is exempt from tithes for the first seven years, by the 2 & 3 *Edw. 6*, c. 13; see also s. 43, p. 22.

(*v*) That portion of rent-charge for which the land is given will be deducted from the whole rent-charge of the parish, subject of course to special agreement, according to the circumstances under which the land has been given: see sections 29 and 62.

(*w*) See s. 37, p. 22.

covered from such occupier (*x*) in like manner as any poor rate assessed on him in respect of such lands; and any occupier holding such lands under any landlord and who shall have paid any such rate or charge in respect of any such rent-charge shall be entitled to deduct the amount thereof from the rent next payable by him to his landlord for the time being, and shall be allowed the same in account with his landlord; and any landlord (*y*) or owner in possession who shall have paid any such rate or charge, or from whose rent the amount of any such rate or charge in respect of any such rent-charge shall have been so deducted, or who shall have allowed the same in account with any tenant paying the same, shall be entitled to deduct the amount thereof from the rent-charge, or by all other lawful ways and means to recover the same from the owner of the rent-charge, his executors and administrators; Provided that the owner of every such rent-charge shall have and be entitled to the like right of demanding, inspecting, (*z*) and taking copies of every assessment containing such rate or charge, and of appeal against the same, and the like power of prosecuting such appeal, and the like remedies in respect thereof, as any occupier or rate-payer has or may have in the case of poor-rates, although such rate or charge is herein made assessable upon the occupier, and the owner of the rent-charge is not mentioned by name in such assessment.

*Rent-charge to be subject to the same Incumbrances and Incidents as Tithe before this Act.—Proviso.*

LXXI. And be it enacted, that any person having any interest in or claim (*a*) to any tithes, or to any charge or incumbrance upon any tithes, before the passing of this Act, shall have the same right to or claim upon the rent-charge for which the same shall be commuted as he had to or upon the tithes, and shall be entitled to have the

like remedies for recovering the same as if his right or claim to or upon the rent-charge had accrued after the commutation; Provided that nothing herein contained shall give validity to any mortgage or other incumbrance which before the passing of this Act was invalid or could not be enforced; and every estate for life, or other greater estate, in any such rent-charge, shall be taken to be an estate of freehold; and every estate in any such rent-charge shall be subject to the same liabilities and incidents (*b*) as the like estate in the tithes commuted for such rent-charge; and where any lands were exempted from tithe whilst in the occupation of the owner thereof by reason of being glebe or of having been heretofore parcel of the possessions of any privileged order, the same lands shall be in like manner exempted from the payment of the rent-charge apportioned on them whilst in the occupation of the owner thereof; and where by virtue of any Act or Acts of Parliament heretofore passed any tithes are authorized to be sold, exchanged, appropriated or applied in any way, the rent-charges for which tithes may be commuted under the provisions of this Act, or any part thereof, shall or may be saleable or exchangeable, appropriated and applied, to all intents and purposes, in like manner as such tithes, and the same powers of sale, exchange and appropriation shall in all such cases extend to and may be exercised in respect of the said commutation rent-charges (*c*); and the money to arise by the sale of such rent-charges shall or may be invested, appropriated, and applied to the same purposes and in like manner as the money to arise by the sale of any such tithes might have been invested, appropriated, and applied under such particular Act or Acts in case this Act had not been passed: and no such rent-charge shall merge or be extinguished in any estate of which the person for the time being entitled to such rent-charge may be seized or possessed in the lands on which the same shall be charged: Provided always, that it shall be lawful for any person seized in possession of an estate in fee simple or fee tail of any tithes or rent-charge in lieu of tithes, by any deed or declaration under

(*a*) The tenant should pay attention to this enactment, or he may, after having paid his rent, be compelled to pay the rates.

(*y*) The landlord has power to deduct the rates from the rent-charge, or if he omit so to do may recover by all other lawful means.

(*z*) The owner of the rent-charge should look to the assessment, as the occupier can deduct whatever he is charged without reference to the correctness of the charge.

(*a*) The object of this provision is to preserve to claimants, to tithes, and persons having charges upon them the same rights in respect to the rent-charge.

(*b*) As, for instance, in the case of ecclesiastical tithes liability to sequestration, &c. &c.

(*c*) That is, the powers of sale, exchange, &c., &c., given by local acts are continued by this act so far as concerns the tithes referred to in such acts.



his hand and seal, to be made in such form as the said commissioner shall approve, and to be confirmed under their seal, to release, assign, or otherwise dispose of the same, so that the same may be absolutely merged (*d*) and extinguished in the freehold and inheritance of the lands on which the same shall have been charged.

FUTURE ALTERATION OF APPORTIONMENT.

*Apportionment may be altered by Commissioners of Land Tax, if desired.*

LXXII. And be it enacted, that if at any time subsequent (*e*) to the confirmation of any such instrument of apportionment the owner of any lands charged with any such rent-charge shall be desirous that the apportionment thereof shall be altered, it shall be lawful for the commissioners of land tax for the county or place where the said lands are situate, or any three of them, to alter the apportionment in such manner and in such proportion and to the exclusion of such of the lands as the land owner, with the consent of two justices of the peace acting for the county, riding, division, or other jurisdiction in which the lands are situated, may direct; and such altered apportionment shall be made by an instrument in writing under the hands and seals of the said commissioners of land tax and of the said land owner and justices, of the like form and tenor as to the said lands as the original apportionment, and bearing date the day of its execution by the said commissioners of land tax, subject to the provision herein-before contained with respect to the value of lands in which any rent-charge may be charged on account of the tithes of any other lands (*f*); and every such altered apportionment shall be as valid as if made and confirmed by the title commissioners as aforesaid, and shall be taken to be an amendment of the original apportionment; and in every such case two counterparts of the instrument of altered apportionment, under the hands and seals of the said commissioners of land tax and justices and land owner, shall be sent, one to the registrar of the Diocese, and one to the incumbent and church or chapel wardens, or other person having the custody of the other copy of the original instrument

of apportionment; and one counterpart shall be annexed to the copy of the instrument of apportionment in the custody of the registrar and such other person respectively, and taken to be an amendment thereof; and thenceforward such lands shall be charged only according to such altered apportionment; and all expences of such alteration shall be borne by the land owner desiring the same.

EXPENSES, BY WHOM TO BE PAID, AND HOW RECOVERED.

*Expences of Witnesses to be paid under the Direction of the Commissioners.*

LXXIII. And be it enacted, that the commissioners or assistant commissioner, in any case were they or he may see fit, may order such expences of witnesses, and of the production of any books, deeds, contracts, agreements, accounts, or writings, terriers, maps, plans, and surveys, or copies thereof, and all other expences (except the salary or allowance to any commissioner or assistant commissioner) incurred in the settlement of any suit or difference or in the hearing and determining any Objection to any award or apportionment before the said commissioners or any assistant commissioner, to be paid by such parties interested in the production thereof respectively, or in the event of such suit, difference, or objection, and in such proportions, as the commissioners or assistant commissioner shall think fit and reasonable (*g*).

*Expences of making any Award to be paid by the Land Owners and Tithe Owners as the Commissioners may direct.*

LXXIV. And be it enacted, the allowances to, and expences of land surveyors and tithe valuers necessary for making any award (*h*), and all other expences of or incident to making the said award, except the salary or allowance to any commissioner or assistant commissioner, and except any expences which the commissioners or any assistant commissioner, or any court or arbitrator, may be authorized to order and may have ordered to be otherwise paid, shall be borne and paid by the land owners and tithe owners interested in the said award, in such

(*g*) Expenses may be charged upon estate or benefice for 20 years, see sections 77 and 78, p. 32.

(*h*) There is a distinction made as to the expences of the award and the expences of the apportionment, see s. 75, p. 32. The land-owners and tithe-owners are both interested in the award, and therefore both contribute; but the land-owners being alone interested in the apportionment, the charge of that proceeding is to be defrayed by them alone.

(*d*) As in the case of land-tax redeemed.

(*e*) If the land owner has not availed himself of the power of making a special apportionment given by sec. 58, he may at any subsequent time effect it in the manner prescribed in this section.

(*f*) See sec. 58, p. 26.

proportion, time and manner as the commissioners or assistant commissioner shall direct (i).

*Expences of Apportionment to be borne rateably by the Land Owners,*

LXXV. And be it enacted, that all the expences of or incident to making any apportionment (except the salary or allowance to any commissioner or assistant commissioner, and except any expence which the commissioners or assistant commissioner may be authorized and may have ordered to be otherwise paid,) shall be borne and paid by the owners of lands included in the apportionment in rateable proportion to the sum charged on the said lands in lieu of tithes by such apportionment (j).

*Expences may be recovered by Warrant of Distress.*

LXXVI. And be it enacted, that if any difference shall arise touching the said expences, or the share thereof to be paid by any person, it shall be lawful for the commissioners or some assistant commissioner to certify under their or his hand the amount to be paid by such person; and in case any person shall neglect or refuse to pay his share so certified to be payable by him, and upon the production of such certificate before any two justices of the peace for the county or other jurisdiction wherein the lands mentioned in the agreement or award or apportionment are situate, such justices, upon the nonpayment thereof, are hereby required, by warrant under their hands and seals, to cause the same and the costs of the distress to be levied by distress and sale of the goods of the person liable to pay the same, and to render the surplus (if any), after deducting the charges of the distress and sale, to the person distrained upon.

*Owners of particular Estates may charge the Costs on the Estate for Twenty Years.*

LXXVII. And be it enacted, that every owner of an estate in land or tithes less in the whole than an immediate estate of fee simple or fee tail, or which shall be settled upon any uses or trusts, may, with the consent of the commissioners, and in such manner as they may direct, charge so much of the expences of commutation as is to be defrayed by him, or any part thereof, and the interest thereon after the rate of four pounds by the hundred, upon the lands whereof the tithes are commuted, or upon

the rent-charge to be received by him instead of such tithes respectively, but so nevertheless that the charge upon such lands or rent-charge respectively shall be lessened in every year following such commutation by one-twentieth part at least of the whole original charge thereon.

*Costs of Ecclesiastical Tithe Owners may be charged on the Benefice for Twenty Years.*

LXXVIII. And be it enacted, that every ecclesiastical beneficed person who shall commute the tithes of his benefice under this act may advance or borrow the sum necessary to defray so much of the expences of commutation as is to be defrayed by him, or any part thereof, and as a security for repayment may charge or assign the rent-charge to be received instead of such tithes for twenty years, or until the principal sum advanced or borrowed, and the interest thereon after the rate of four pounds by the hundred, and the expences of such charge or assignment, shall be sooner paid; and every incumbent successively shall pay the interest of the sum advanced or borrowed, or of so much thereof as shall then remain unpaid, as the same shall become due, or within one calender month next following, and also an instalment at the rate of five pounds for every hundred pounds of the principal sum advanced or borrowed, and in default of such payment the ordinary may sequester the profits of the benefice until such payments shall be made, provided that the sum to be so advanced or borrowed shall be ascertained and certified under the hand of any commissioner or assistant commissioner, and shall be by him stated to have been the amount of such expences properly incurred by such ecclesiastical beneficed person in relation to such commutation.

PROTECTION TO TENANT PAYING RENT-CHARGE.

*If Tenant of Lands at Rack-Rent dissent from paying the Rent-Charge, the Landlord may take the Tithes during the Tenancy.*

LXXIX. And be it enacted, that any tenant or occupier who at the time of such commutation shall occupy at rack rent any lands of which the tithes shall be so commuted may, within one calender month next after the confirmation of the apportionment by the commissioners, signify, by writing under his hand given to or left at the usual residence of his landlord or his agent, his dissent from being bound to pay any rent-charge apportioned and charged on the said lands as aforesaid, and in that case such landlord shall be entitled, from the time

(i) And may be recovered by distress, see section 76.

(j) See sections 76, 77, and 78.

when the said apportionment shall take effect, and during the tenancy or occupation of such tenant or occupier, to stand, as to the perception and collection of tithes, or receipt of any composition instead thereof, in the place of the owner of the tithes so commuted, and to have all the powers and remedies for enforcing tender and payment of such tithes or composition which the tithe owner would have had if the commutation had not taken place.

*Tenant paying Rent-Charge to be allowed the same in Account with his Landlord.*

LXXX. And be it enacted, that any tenant or occupier at the time of such commutation who shall have signified his dissent from being bound to pay any such rent-charge as aforesaid or who shall hold his lands under a lease or agreement providing that the same shall be holden and enjoyed by him free of tithes, and every tenant or occupier who shall occupy any lands by any lease or agreement made subsequently to such commutation, and who shall pay any such rent-charge, shall be entitled to deduct the amount thereof from the rent payable by him to his landlord, and shall be allowed the same in account with the said landlord.

MODE OF RECOVERING RENT-CHARGE BY DISTRESS AND ENTRY.

*When Rent-Charge is in Arrear for Twenty-One Days after half-yearly Days of Payment, the Person entitled thereto may distrain.*

LXXXI. And be it enacted, that in case the said rent-charge shall at any time be in arrear and unpaid for the space of twenty-one days next after any half-yearly day of payment, it shall be lawful for the person entitled to the same, after having given or left ten days' notice in writing at the usual or last known residence of the tenant in possession, to distrain (*k*) upon the lands liable (*l*) to the payment thereof, or on any part thereof, for all arrears of the said rent-charge, and to dispose of the distress when taken, and otherwise to act and demean himself in relation thereto as any landlord may for arrears of rent reserved on a common lease for years; provided that not more than two years' arrears shall at any time be recoverable by distress.

*When Rent-Charges are in Arrear for Forty Days after half-yearly Days of Payment,*

(*k*) This is the usual remedy for recovering arrears of rent-charge.

(*l*) Powers of distress and entry extend to all lands within the parish, occupied by the owner, or under the same landlord, or holding, see s. 85, p. 34.

*and no sufficient Distress on the Premises, Writ to be issued directing Sheriff to summon Jury to assess Arrears.*

LXXXII. And be it enacted, that in case the said rent-charge shall be in arrear and unpaid for the space of forty days next after any half-yearly day of payment, and there shall be no sufficient distress on the premises liable to the payment thereof, it shall be lawful for any judge of his Majesty's courts of record at *Westminster*, upon affidavit of the facts to order a writ to be issued, directed to the sheriff of the county in which the lands chargeable with the rent-charge are situated, requiring the said sheriff to summon a jury to assess the arrears of rent-charge remaining unpaid, and to return the inquisition thereupon taken to some one of his Majesty's courts of law at *Westminster*, on a day therein to be named, either in term time or vacation; a copy of which writ, and notice of the time and place of executing the same, shall be given to the owner of the land, or left at his last known place of abode, or with his known agent, ten days previous to the execution thereof; and the sheriff is hereby required to execute such writ according to the exigency thereof; and the costs of such inquisition shall be taxed by the proper officer of the court; and thereupon the owner of the rent-charge may sue out a writ of habere facias possessionem, directed to the sheriff, commanding him to cause the owner of the rent-charge to have possession of the lands chargeable therewith until the arrears of rent-charge found to be due, and the said costs, and also the costs of such writ and of executing the same, and of cultivating and keeping possession of the lands, shall be fully satisfied: Provided always, that not more than two years' arrears over and above the time of such possession shall be at any time recoverable.

*Account how to be rendered.*

LXXXIII. And be it enacted, that it shall be lawful for the court out of which such writ shall have issued, or any judge at chambers (*m*), to order the owner of the rent-charge who shall be in possession by virtue of such writ from time to time to render an account of the rents and produce of the

(*m*) This is a most valuable amendment of the law affording by summary means, and at a small cost that redress which could only be obtained by means of a chancery suit, with all its incidents of expense and delay. Wherever such cases arise the party taking possession should keep his accounts accurately, or he may suffer considerable loss when called upon to render an account.

lands and of the receipts and payments in respect of the same, and to pay over the surplus (if any) to the person for the time being entitled thereunto, after satisfaction of such arrears of rent-charge and all costs and expences as aforesaid, and thereupon to order a writ of supersedeas to issue to the said writ of habere facias possessionem, and also by rule or order of such court or judge from time to time to give such summary relief to the parties as to the said court or judge shall seem fit.

*For Recovery of Rent-Charges from Quakers.*

LXXXIV. Provided always, and be it enacted, that in all cases in which it shall be necessary to make any distress under this Act in respect of any lands in the possession of any person of the persuasion of the people called Quakers (*n*), the same may be made upon the goods, chattels, or effects of such person, whether on the premises or elsewhere, but nevertheless to the same amount only and with the same consequences in all respects as if made on the premises; and that in all cases of distress under this act upon persons of that persuasion the goods, chattels, or effects which may be distrained shall be sold without its being necessary to impound or keep the same (*o*): Provided always, that no writ under the provision herein-before contained shall be issued for assessing or recovering any rent-charge payable under this Act in respect of any lands in the possession of any person of the persuasion aforesaid, unless the same shall be in arrear and unpaid for the space of forty days next after any half-yearly day of payment, without the person entitled thereto being able to find goods, chattels, or effects either on the premises or elsewhere liable to be distrained as aforesaid sufficient to satisfy the arrears to which such lands are liable, together with the reasonable costs of such distress.

*Powers of Distress and Entry to extend to all Lands within the Parish occupied by the Owner or under the same Landlord or Holding.*

LXXXV. And be it enacted, that whenever any rent-charge payable under the

provisions of this act shall be in arrear, notwithstanding any apportionment which may have been made of any such rent-charge, every part of the land situate in the parish in which such rent-charge shall so be in arrear, and which shall be occupied by the same person who shall be the occupier of the lands on which such rent-charge so in arrear shall have been charged, whether such land shall be occupied by the person occupying the same as the owner thereof, or as tenant thereof, holding under the same landlord under whom he occupies the land on which such rent-charge so in arrear shall have been charged, shall be liable to be distrained upon or entered upon as aforesaid for the purpose of satisfying any arrears of such rent-charge, whether chargeable on the lands on which such distress is taken or such entry made, or upon any other part of the lands so occupied or holden: Provided always, that no land shall be liable to be distrained or entered upon for the purpose of satisfying any such rent-charge charged upon lands which shall have been washed away by the sea, or otherwise destroyed by any natural casualty (*p*).

APPORTIONMENT OF RENT-CHARGE ON DEATH, REMOVAL, &c.

*Powers of 4 & 5 W. 4. to extend to Rent-Charges under this Act.*

LXXXVI. And be it enacted, that the several provisions of an Act passed in the fourth and fifth years of his present Majesty, intituled *an Act to Amend an Act of the Eleventh year of King George the Second, respecting the Apportionment of Rents, Annuities, and other Periodical Payments*, shall extend to all rent-charges payable under this Act (*q*).

SALE OF TITHE BARNS.

*Provision for the Sale of Buildings and the Sites thereof rendered useless or unnecessary by the Commutation of Tithes.*

LXXXVII. And be it enacted, that if any barns or buildings belonging to any tithe owner having a limited estate or interest therein which shall have been generally used for the housing of tithes paid in kind, shall be rendered in the whole or in part useless by reason of any commutation of tithes under this act, it shall be lawful for every such tithe owner (with the consent, nevertheless, of the commissioners, and sub-

(*n*) Any Quaker refusing to pay tithes may when the sum is under 10*l.*, by the 7 & 8 W. 3, c. 34, be summoned before two justices, and distrained upon for the amount, with power of appealing to the sessions. The sum is extended to 50*l.* by the 53 G. 3, c. 127.

(*o*) This course is manifestly advantageous to the person who distrains, and looking to the tenets of the Society of Friends will in all probability be more agreeable to them.

(*p*) In which case the claim to rent-charge is gone, there being no personal liability, see s. 57, p. 26.

(*q*) That is in cases of change by death &c., the rent-charge, will be calculated up to the day of the change taking place.

ject to such directions as they may give, to be signified under their hands and seal.) to pull down any such barns or buildings or any part thereof, and to sell and dispose of the materials, or to sell and dispose of all or any of such barns or buildings, and the site thereof, and either with or without any farm buildings or homesteads thereunto belonging, in such manner as the commissioners may direct; and upon payment of the consideration money it shall be lawful for every such tithe owner (with such consent as aforesaid,) to convey and deliver the premises sold as aforesaid to the purchaser thereof, or to such uses and in such manner as such purchaser shall direct; and the consideration money in each case shall be paid to such tithe owner, and his receipt shall be a good discharge to the purchaser; and such tithe owner shall lay out and invest the consideration money in such manner and for such trusts as the commissioners shall direct for the benefit of the persons entitled to the said rent-charge.

#### LEASES OF TITHES MAY BE SURRENDERED.

LXXXVIII. And be it enacted, that it shall be lawful for the lessee being in occupation of any tithes commuted under this act, by an instrument in writing under his hand and seal, to be made in such form as the commissioners shall direct, and confirmed under their seal, to surrender and make void the lease by which the said tithes are held or enjoyed by such lessee at the time of the commutation, so far as the same may relate to the said tithes; and it shall be lawful for the commissioners, by the same instrument, to direct what compensation (if any) shall be given by the immediate lessor of any lessee at rack-rent so surrendering any lease of any such tithes to such lessee, and what allowance (if any) shall be made by any lessee to his immediate lessor of any such surrendered lease, in consideration of the non-fulfilment of any conditions contained in such lease, and what deduction (if any) shall be made from the rent thenceforth payable by any lessee to his immediate lessor in respect of other hereditaments (*r*) which may have been included with the said tithes in any such lease: Provided always, that any intermediate lessor to whom any such lease shall have been surrendered shall as regards his immediate lessor be taken to be the lessee in occupation of the tithes included in the said lease.

(*r*) As in the case of lands and tithes let together.

#### TITHES DUE BEFORE COMMUTATION NOT TO BE AFFECTED.

LXXIX. And be it enacted, that nothing in this act contained shall affect any right to any tithes which shall have become due before the commutation.

#### EXCEPTIONS.

*Act not to extend to Easter Offerings, &c. or to Payments instead of Tithes in London, or to permanent Rent-Charges by Custom or Act of Parliament.*

XC. And be it enacted, that nothing in this Act contained, unless by special provision to be inserted in some parochial agreement and specially approved by the commissioners, in which case the same shall be valid, shall extend (*s*) to any *Easter* offerings, mortuaries, or surplice fees, or to the tithes of fish or of fishing, or to any personal tithes other than the tithes of mills, or any mineral tithes, or to any payment instead of tithes arising or growing due within the City of London, or to any permanent rent-charge or other rent or payment in lieu of tithes, calculated according to any rate or proportion in the pound on the rent or value of any houses or lands in any city or town under any custom or private Act of Parliament, or to any lands or tenements the tithes whereof shall have been already perpetually commuted or extinguished under any Act of Parliament heretofore made.

#### EXEMPTIONS FROM STAMP DUTY.

*Advertisements, Contracts, and Awards not to be liable to Stamp Duty.*

XCI. And be it enacted, that no advertisement inserted by direction of the commissioners or any assistant commissioner, or by any tithe owner or land owner, in the *London Gazette*, or in any newspaper, for the purpose of carrying into effect any provision of this Act, and no agreement, award, or power of attorney made or confirmed or used under this act, shall be chargeable with any stamp duty.

#### EXEMPTIONS FROM POSTAGE.

*Correspondence of Commissioners relating to this Act to be free of Postage.*

XCH. And be it enacted, that the said commissioners may receive and send by the general post from and to places in *England* and *Wales* all letters and packets relating exclusively to the execution of this Act free from the duty of postage, provided that such letters and packets as shall be sent to the said com-

(*s*) This section contained before the last amendment the following further exemption: "nor to the tithe of milk, or calves of any cows except those maintained by their owners on the produce of land occupied by themselves, and the tithe of which has been commuted under this act." It will be no easy task to adjust the tithes upon stall-fed cows, of which there are many kept in the neighbourhood of large towns, and fed partially upon land in the parish, but principally upon food purchased elsewhere. There may be five hundred cows kept in a parish at one period and none at all in a week after.

missioners be directed to the "Tithe Commissioners for *England* and *Wales*," at their office in *London*, and that all such letters and packets as shall be sent by the said commissioners shall be in covers, with the words "tithe commissioners for *England* and *Wales*," printed on the same, and be signed on the outside thereof under such words with the name of such person in his own handwriting as the said commissioners, with the consent of the lords commissioners of the treasury or any three or more of them, shall appoint, (such name to be from time to time sent to the secretary of the General Post Office in *London*;) and be sealed with the seal of the said commissioners, and under such other regulations as the said lords commissioners or any three or more of them shall think fit; and if the person so to be appointed shall subscribe or seal any letter or packet whatever, except such only concerning which he shall receive the special direction of his superior officer, or which he shall himself know to relate exclusively to the execution of this act, or if the person so to be appointed, or any other person, shall send or cause to be sent under any such cover any letter, paper, or writing, or any inclosure, other than shall relate exclusively to the execution of this Act, every person so offending shall forfeit and pay the sum of one hundred pounds and be dismissed from his office, one moiety of such penalty shall be paid to the use of his Majesty, his heirs and successors, and the other moiety to the use of the person who shall inform or sue for the same; and every such penalty may be sued for and recovered in any of his Majesty's courts of record in *Westminster*.

PENALTIES FOR GIVING FALSE EVIDENCE.

*False Evidence to be deemed Perjury; withholding Evidence a Misdemeanor.*

XCI. And be it enacted, that if any person under the provisions of this Act shall wilfully give false evidence he shall be deemed guilty of perjury; and if any person shall make or subscribe a false affidavit or declaration for the purposes of this Act he shall suffer the penalties of perjury; and if any person shall wilfully refuse to attend in obedience to any lawful summons of any commissioner or assistant commissioner, or to give evidence, or shall wilfully alter, withhold, destroy, or refuse to produce any book, deed, contract, agreement, account, or writing, terrier, map, plan, or survey, or any copy of the same, which may be lawfully required to be produced before the said commissioners or assistant commissioner, he shall be deemed guilty of a misdemeanor.

LIMITATION OF ACTIONS AGAINST COMMISSIONERS, ASSISTANT-COMMISSIONERS, JUSTICES, &c.

XCIV. And be it enacted, that no action or suit shall be commenced against any commissioner, assistant commissioner, justice of the peace, valuer, umpire, or surveyor, for anything done under the authority of this Act, until twenty-one days notice thereof shall have been given in writing to the party against whom such action or suit is intended to be brought, or after sufficient satisfaction or tender of amends have been made to any party aggrieved, or after three calendar months shall have expired from the commission of the act for which such action or suit shall be so brought; and every such action shall be brought, laid, and tried in the county or place where the cause of action shall have arisen, and not in any other county or place; and if it shall appear that such notice of action or suit was brought before twenty-one days notice thereof given as aforesaid, or that sufficient amends were made or tendered as aforesaid, or if any such action or suit shall not be commenced within the time before limited in that behalf, or such action shall be laid in any county or place other than as aforesaid, then the jury shall find a verdict for the defendant therein, or the court, upon summary application by motion in any such suit, may dismiss the same against such defendant; and if a verdict shall be found for such defendant, or such suit shall be dismissed upon application as aforesaid, or if the plaintiff in such action or suit shall become nonsuit, or suffer a discontinuance of such action, or if upon any demurrer in such action or suit judgment shall be given for the defendant therein, then such defendant shall have costs, charges, and expences as between attorney and client.

*Proceedings under this Act not to be quashed for Want of Form, nor to be removed by Certiorari.*

XCIV. And be it enacted, that no order, adjudication, or proceeding made or had by or before the commissioners or any assistant commissioner under the authority of this Act, or any proceeding to be had touching any offender against this Act, shall be quashed for want of form, or be removed or removeable by certiorari, or any other writ or process, into any of his Majesty's courts of record at *Westminster* or elsewhere.

*Limits of Act.*

XCVI. And be it enacted, that this act shall extend only to *England* and *Wales*.

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XCVII. And be it further enacted, that this act may be amended, altered, or repealed by any act or acts to be passed in this present Session of Parliament.

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 then to be binding on all parties interested in the lands or tithes, s. 52.  
 not to be impeached after confirmation by reason of informality, s. 66.  
 money value of rent-charge to vary according to the alteration in the prices of grain during seven years preceding Christmas, 1885, s. 67.  
 expenses of hearing objections to be paid as commissioners direct, s. 73.  
 expenses incident to making award to be paid by the landowners and tithes-owners interested, in such proportion, time and manner as the commissioners may direct, s. 74.

**BARNES.** See BUILDINGS. COMMISSIONERS. TITHE OWNER.

**BARREN HEATH.** See EXEMPTIONS. RENT-CHARGE.

**BENEFACTICE.** See AGREEMENT. CROWN. PATRON.  
 patron of benefice if owner of tithes or lands, or both, may be dealt with in each of the several characters, s. 14.  
 consent under the hand of patron or person entitled to present requisite to an agreement for commutation of tithes, s. 26.  
 agreement relating to tithes belonging to any ecclesiastical person in right of any spiritual dignity or benefice to be transmitted to the bishop of the diocese for his direction and opinion, s. 28.  
 any ecclesiastical beneficed person may advance or borrow money to defray the expenses of commuting the tithes of his benefice, and charge the rent-charge for twenty years, or until the sum advanced with 4 per cent. interest be repaid, s. 78.

**BISHOP.** See AGREEMENT. COMMISSIONERS.  
 when tithes belong to, consent of crown to commutation requisite, s. 26.  
 notice of agreement in cases of ecclesiastical tithes to be sent to, s. 28.

**BOOK.**  
 production of on oath may be required, s. 10.  
 party wilfully altering, withholding, destroying, or refusing to produce, guilty of a misdemeanor, s. 93.

**BOUNDARY.** See ARBITRATION. COMMISSIONERS. REFERENCE.  
 dispute respecting may be submitted to reference, s. 24.  
 commissioners or assistant-commissioners may hear and determine disputes respecting, s. 45.

**BUILDINGS.** See COMMISSIONERS. TITHE OWNER.  
 or barns generally used for the housing of tithes, and rendered useless by commutation of the tithes, may be sold or pulled down, the materials sold, and the site disposed of by the tithes-owner, with consent and under direction of commissioners, s. 87.

proceeds to be laid out in such manner and upon such trusts as commissioners may direct, for the benefit of persons entitled to the rent-charge, s. 87.

**CASUALTY-NATURAL.** See DISTRESS. RENT-CHARGE. SEA.

**CERTIORARI.**

proceedings not to be quashed or removed by, s. 95.

**CHAIRMAN.** See MEETING.

to ascertain the interest of the land-owners and tithes-owners present at any meeting, s. 18.

to adjourn the meeting to a time and place then by him declared if majority shall require it, s. 20.

to give notice of any adjourned meeting to be affixed to a conspicuous place outside the building where the last meeting was holden, s. 20.

**CHANCELLOR, LORD.** See CROWN. CHARGE.

persons having a charge upon tithes to have the same right or claim upon the rent-charge, for which tithes shall be commuted, s. 71.

**CHARGES.** See RATES. RENT-CHARGE. TENANT. CHURCHWARDEN.

form of notices, agreements, &c., to be supplied to by commissioners, s. 22.

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**CLERKS TO COMMISSIONERS.**

to be appointed and removed by commissioners, s. 4.

not to be appointed for more than five years, s. 6.

amount of salary to be regulated by treasury, s. 7.

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**COMMISSIONERS.** See ACTION. ASSISTANT COMMISSIONERS.

number of, s. 1.

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shall have their office in London or Westminster, s. 2.

two of them to constitute a board, s. 2.

to have a seal, s. 2.

to cause all agreements, &c., to be sealed or stamped, s. 2.

to report their proceedings from time to time, as secretary of state shall direct, s. 3.

to submit to secretary of state an annual report of their proceedings, s. 3.

to appoint and remove assistant-commissioners, s. 4.

not to appoint more than twelve assistant-commissioners unless with consent of treasury, s. 4.

to appoint and remove secretary, assistant-secretary, clerks, messengers, or officers, s. 4.

not to be elected or sit as members of the House of Commons, s. 5.

appointment limited to five years from passing of act, &c., s. 6.

salaries of, regulated by treasury, s. 7.

salary not to exceed 1500*l.* per annum, s. 7.

allowance of travelling and other expenses, s. 7.

before entering upon execution of office to take oath, s. 9.

to summon parties before them, s. 10.

to make enquiries and call for returns, s. 10.

to administer oaths, s. 10.

to examine persons upon oath, s. 10.

to require production, upon oath, of books, &c., s. 10.

persons not required to travel more than ten miles in obedience to summonses of, s. 10.

may delegate powers to assistant-commissioners except the power to confirm agreements and awards, or to frame forms of agreements, and other instruments, or to do any act required to

COMMISSIONERS—*Continued.*

- be done under the seal of the commissioners, s. 11.
- may revoke such powers, s. 11.
- may act notwithstanding such delegation of powers, s. 11.
- to appoint guardians for persons labouring under legal disabilities, s. 15.
- to frame and cause to be printed forms of notices and agreements and such other requisite instruments, s. 22.
- to supply or send forms of notices, &c., to churchwardens and overseers for the use of land-owners or tithe-owners, s. 22.
- may attend parochial meetings, take part in discussions, and advise upon the terms of agreement, s. 23.
- but whilst attending meeting not to exercise any of the powers given in case of an award or apportionment, s. 23.
- may direct any person interested to be made party to reference, s. 24.
- to make or cause enquiry to be made, respecting and to require proof before confirmation of agreement, s. 27.
- to add date of confirmation to agreement and publish the fact within the parish, s. 27.
- to transmit any agreement relating to tithes belonging to any ecclesiastical person in right of any spiritual dignity or benefice to the bishop of the diocese before confirmation, s. 28.
- not to confirm agreement until four weeks from the date of the transmission to such bishop, unless he shall sooner signify his approbation, s. 28.
- to direct the form of, and particulars to be contained in agreement for giving land by way of commutation of ecclesiastical tithes, s. 29.
- to satisfy themselves of the title to the land proposed to be given in exchange for such tithes or rent-charge, that the same are of the description and value set forth in such agreement, s. 30.
- to fix the proportions of the expense of the agreement for giving land, and investigating the title in case of difference between the owners of land liable to the payment, s. 30.
- may administer declaration to valuer or umpire, and countersign it, s. 34.
- to proceed after the 1st Oct. 1838, to ascertain and award the total sums to be paid by way of rent-charge instead of tithes of any parish in England and Wales in which no agreement binding on the whole parish has been entered into, s. 36.
- may, if any proceeding shall be had towards making an agreement, refrain from acting after notice of intention given, if they shall think fit, s. 36.
- to give notice of their intention to make an award, s. 37.
- except in certain cases to ascertain the clear average value of tithes upon an average of seven years preceding Christmas, 1835, s. 37.
- how to ascertain average value, s. 37.
- to award the average annual value of the seven years ascertained as the sum to be taken for calculating the rent-charge to be paid as a permanent commutation of the tithes, s. 37.
- to estimate the value of tithes without making any deduction therefrom on account of any parliamentary, parochial, county, or other rates, charges, or assessments, s. 37.
- upon notice from the patron or from the land-owners or tithe-owners interested in not less than one half of the tithes that the average value so calculated will not fairly represent the sum which ought to be taken for commutation to diminish or increase the sum to be taken by a sum not amounting to more than one-fifth part of the average value so ascertained, s. 38.
- to make a report to one of the secretaries of state before the 1st May, 1838, how discretion should be exercised in special adjudications, s. 38.

COMMISSIONERS—*Continued.*

- to reserve cases involving special circumstances for separate adjudication, s. 38.
- to report to secretary of state all the cases reserved for separate adjudication, with reasons for reserving them, s. 39.
- in every such special case to award the rent-charge to be paid, s. 39.
- to hear and determine or appoint assistant-commissioners to hear and determine all objections to special award as in an ordinary case, s. 39.
- thereupon to amend such special award, if requisite, s. 39.
- to estimate the value of the tithes of hop-grounds, orchards, or gardens separately, upon notice given by the owners thereof, s. 40.
- before the 1st May, 1838, to make a report to the secretary of state containing rules for the guidance of the assistant-commissioners in estimating the value of the tithes of coppice woods, s. 41.
- to estimate the value of the tithe of coppice-woods separately upon notice given by the owners thereof, s. 41.
- upon notice given to estimate separately the value of the tithe of any lands which shall during any part of the period of seven years preceding Christmas, 1835, have been exempted from payment of tithes by reason of having been enclosed under any act of parliament or converted during that period from barren heath or waste ground, or by reason of being glebe land, or of having been heretofore parcel of the possessions of any privileged order, s. 43.
- to estimate the amount of any modus or composition real, or prescriptive or customary payment, as the value of the tithes, s. 44.
- to hear and determine disputes, s. 45.
- decision to be final, s. 45.
- as soon as they or the assistant-commissioners shall have ascertained the total value of all the tithes in a parish, and that all suits and differences, if any, are settled, to frame the draft of an award declaring the amount of rent-charge to be paid in respect of the tithes of the parish, s. 50.
- to deposit a copy of the draft award in some convenient place within the parish for the inspection of all parties interested in the lands or tithes, s. 51.
- to give notice where it may be inspected, s. 51.
- to appoint some time and place not earlier than twenty-one days from the first giving of notice for holding a meeting to hear objections, s. 51.
- to attend meeting and hear and determine objections, s. 51.
- may adjourn meeting, s. 51.
- direct further valuation of lands and tithes, &c., s. 51.
- may hold further meetings, s. 51.
- having heard and determined all objections may amend award if they shall see fit, s. 51.
- to examine award, and if they think it ought to be confirmed to confirm the same, s. 52.
- to add the date of confirmation and publish the fact of confirmation, and the date thereof in the parish, s. 52.
- to call a parochial meeting of the owners of land subject to tithes as soon as the award has been confirmed for the purpose of choosing valuers to apportion the amount, s. 53.
- to give notice thereof in the parish, s. 53.
- to apportion the rent-charge if no valuers shall have been appointed, or being appointed, if they have not made an apportionment and sent it to the office of the commissioners at the expiration of six calendar months after the day of the date of the confirmation of any agreement or award, s. 54.
- to make a special apportionment at the request of landowner, s. 56.
- to employ such land surveyors and tithe valuers as they may think fit, s. 59.

**COMMISSIONERS—Continued.**

- may order them to be paid at a rate not exceeding two guineas per day, s. 59.
- may make any agreement with land surveyor or title valuer for the payment to them of one sum for the whole duty to be performed by them, s. 59.
- may assess the same as part of expenses of award and apportionment s. 59.
- to have all the powers and subject to all the provisions concerning valuers appointed at any parochial meeting, s. 59.
- not bound to adopt principles of apportionment agreed to at any parochial meeting, s. 59.
- to cause a copy of draft of apportionment to be deposited at some convenient place within the parish for the inspection of all persons interested in the lands and tithes, s. 61.
- to give notice where it can be inspected, s. 61.
- to appoint some convenient place and such times for holding meetings as they shall think necessary to hear objections to the apportionment, s. 61.
- to hear and determine objections made, s. 61.
- to adjourn meetings if necessary, and fix other meetings, s. 61.
- having heard and determined all objections, to amend the apportionment if they shall see occasion, s. 61.
- to cause the instrument of apportionment to be engrossed, and with the map or plan annexed, both being signed to be sent to the office of the commissioners, s. 63.
- to confirm the apportionment under their hands and seals, and add the date of confirmation if approved, s. 63.
- to seal two copies of every confirmed instrument of apportionment and every confirmed agreement for giving land instead of tithes, s. 64.
- may require notice of agreements, awards, or apportionments, to be given to remainder man, reversioner or expectant of an estate of inheritance or to any other person, s. 65.
- may hear and determine objections from such persons, and amend any award or apportionment accordingly, s. 65.
- may order the expenses of witnesses, and the production of books, deeds, maps, surveys, or copies thereof, &c. &c., to be paid by such parties interested, and in such proportions as they may think fit, s. 73.
- to order payment of the expenses incident to making any award to be made by the land-owners and tithe-owners interested, in such proportion, time and manner as they may think fit, s. 74.
- to give directions respecting the sale and disposal of barns and buildings rendered useless by the commutation of tithes, s. 87.
- to direct in what manner and upon what trusts the proceeds should be invested for the benefit of the persons entitled to the rent-charge, s. 87.
- to direct what compensation, if any, shall be given by the immediate lessor to any lessee surrendering his lease, and what deduction, if any, shall be made by any lessee to his immediate lessor in respect to other hereditaments which may have been included in the lease, s. 88.
- COMMISSIONERS OF WOODS AND FORESTS.**  
See **CROWN.**
- COMMITTEE.** See **OWNER OF LAND. OWNER OF TITHE. PATRON.**
- COMMONS, HOUSE OF.**  
no commissioner or assistant-commissioner to be capable of being elected or sitting as a member of, s. 5.
- COMMUTATION.** See **AGREEMENT. AWARD. AP-PORTIONMENT. RENT-CHARGE.**
- COMPENSATION.**  
may be made, by order of commissioners, to a lessee of tithes surrendering his lease, s. 88.
- COMPOSITION.** See **COMMISSIONERS. REFERENCE.**  
questions as to the existence of, may be submitted to reference, s. 24.

**COMPOSITION—Continued.**

- in cases of valuation lands to have the full benefit of, s. 33.
- to be taken as the clear value of the tithes during the time for which it was made, s. 37.
- where payable shall be taken to be the value of the tithes, s. 44.
- commissioners or assistant-commissioners may hear and determine disputes respecting, s. 45.
- COMPTROLLER OF CORN RETURNS.**  
to publish in the London Gazette annually, and immediately after the passing of this act, the average price of corn during the seven years ending on the Thursday next before Christmas day then next preceding, s. 56.
- CONFIRMATION.**  
of agreement, s. 27.  
of award, s. 52.  
of apportionment, s. 66.
- CONTRACT.** See **STAMP DUTY.**  
production of on oath may be required, s. 10.  
party wilfully altering, withholding, destroying, or refusing to produce, guilty of misdemeanor, s. 93.
- COPPICE WOOD.**  
tithe of, how to be estimated, s. 41.  
tithe of, may be estimated separately upon notice to the commissioners or assistant-commissioners by the owner thereof, s. 41.  
rules for guiding the assistant-commissioners in estimating the value of the tithes of, to be made by commissioners, s. 41.
- COPY.** See **EVIDENCE. MISDEMEANOR.**  
of all books, deeds, contracts, agreements, accounts and writings, terriers, maps, plans, and surveys, relating to the commutation of tithes, may be called for by the commissioners, s. 10.  
of award, and of any special report therein contained, to be deposited at some convenient place within the parish, for the inspection of the parties interested, s. 51.  
of draft of apportionment to be deposited at some convenient place within the parish for the inspection of parties interested, s. 61.  
two copies of every instrument of apportionment to be made, one to be deposited in the registry of the diocese, the other with the parish books, s. 64.  
two copies of every altered apportionment to be deposited in the same places as the original, s. 72.  
of instrument of apportionment may be had by parties interested on payment after the rate of three-pence for every seventy-two words, s. 64.  
Any sealed copy of a recital or statement in a map or plan annexed to a confirmed apportionment, or agreement for land, deposited in the registry of the diocese, or with the parish books, to be evidence, s. 64.  
sealed copies of agreements, and other instruments, proceeding from the board of commissioners, to be evidence, s. 2.  
of every assessment may be had by owners of rent-charge, in like manner as in the case of poor-rates, s. 70.
- COPYHOLD.**  
land given in exchange for tithes must not be of copyhold tenure, s. 29.
- CORN RETURNS.** See **COMPTROLLER OF CORN RETURNS.**
- CORNWALL, DUCHY OF.** See **CROWN.**
- COSTS.**  
in every appeal to a court of law against the decision of the commissioners, the costs to be in the discretion of the court, s. 46.  
of commutation may be charged by owner of estate upon estate for twenty years, s. 77.  
by ecclesiastical persons upon benefice for twenty years, s. 78.  
of proceedings after tender of amends, s. 94.
- CROWN.**  
when ownership of lands or tithes vested in the first

## CROWN—Continued.

- commissioner of woods and forests to be substituted instead of the owner, s. 13.
- if in right of the Duchy of Lancaster the Chancellor of the Duchy of Lancaster to be substituted, s. 13.
- in right of the Duchy of Cornwall, the officers of the Duchy of Cornwall entitled to grant leases to be substituted, s. 13.
- when patronage of benefices vested in, the Lord Chancellor, Lord Keeper, or First Lord Commissioner of the Great Seal, to be substituted as patron, s. 13.
- when patronage vested, in right of the Duchy of Lancaster, the Chancellor of the Duchy to be substituted as patron, s. 13.

consent to an agreement for commutation of tithes of benefice belonging to bishop or archbishop to be signified by the Lord High Treasurer or First Lord Commissioner of the Treasury, s. 26.

## DECLARATION. See ASSISTANT-COMMISSIONERS. COMMISSIONERS. JUSTICE OF PEACE. VALUER. UMPIRE.

- valuers and umpire must make and subscribe to before acting, s. 34.
- to be countersigned by person administering, and sent to office of commissioners, s. 34.
- to the same purport and effect as the oath directed to be made by the commissioners, s. 34.
- may be made before commissioners, assistant-commissioners, or justice of the peace, s. 34.
- to be subscribed by party making it, and the signature and usual place of residence added, s. 34.

## DISTRESS AND ENTRY. See RENT-CHARGE.

- expenses may be recovered by distress, s. 76.
- if rent-charge in arrear for twenty-one days after any half-yearly day of payment, the person entitled may, having given ten days notice, distrain and dispose of the distress, and act as any landlord may for rent arrear on a common lease for years, s. 81.
- not more than two years' arrears to be recoverable by distress, s. 81.
- if no sufficient distress on the premises forty days after any half-yearly day of payment entry may be made, s. 82.
- for arrears due from Quakers may be made upon the premises or elsewhere, and may be sold without being impounded or kept, s. 84.
- may be made for arrears of rent-charge upon any portion of the lands in any parish belonging to the same landlord, and held by the same occupier, whether the arrears be charged on the lands on which such distress is taken or not, s. 85.
- but not for arrears due upon land washed away by the sea or destroyed by any natural casualty, s. 85.

## EASTER OFFERINGS. See EXEMPTIONS.

## ESTATE,

- no person possessing less than an immediate estate in fee-simple or fee-tail, shall by any reference, bind any person in reversion, remainder, or expectancy, without the consent of commissioners, s. 24.
- any estate for life, or other greater estate in any rent-charge, to be taken to be an estate of freehold, s. 71.
- in fee-simple or fee-tail of tithes, or rent-charge, may, with the consent of commissioners, be merged in the freehold of inheritance, s. 71.
- but not otherwise, s. 71.

## EVIDENCE,

- instruments under seal and sealed copies to be received in, s. 2.
- recitals, &c., when to be received in, s. 64.
- power of commissioners to call for deeds, papers, &c., s. 10.
- proof that agreement ought to be confirmed may be called for by commissioners, s. 27.
- persons giving false evidence guilty of perjury, s. 93.
- refusing to give, guilty of misdemeanor, s. 93.

## EXAMINATION,

- on oath, commissioners may require, s. 10.
- under authority of act if false evidence given party guilty of perjury, s. 93.

## EXEMPTIONS. See POSTAGE. STAMP DUTY.

- to be set forth in parochial agreement, s. 21.
- lands to have full benefit of in valuation, s. 33.
- of land from tithe by reason of having been inclosed under any act of parliament, or converted from barren heath or waste land, or by reason of having been parcel of the possessions of any privileged order, and exempt during some part of the seven years preceding Christmas, 1835, s. 43.

in cases of moduses, &c. s. 44.

commissions to hear and determine disputes respecting, s. 45.

commissioners to give full benefit of, to lands in their valuation, s. 54.

lands to have the same benefit of in case of rent-charge, as they had from tithe, s. 71.

and not to extend to Easter offerings, mortuaries, or surplice fees, the tithes of fish or fishing, or personal tithes, other than the tithes of mills, or any mineral tithes, or to any payment instead of tithes, arising or growing due within the city of London, or to any permanent rent-charge, or other payment in lieu of tithes, calculated according to any rate or proportion in the pound in the rent or value of any houses or lands in any city or town under any custom or private act of parliament, or to any lands or tenements, the tithe whereof shall have already been commuted or extinguished by act of parliament, s. 90.

## EXPECTANCY. See COMMISSIONERS. REFERENCE.

no person possessing less than an immediate estate of fee-simple or fee-tail in lands or tithes shall be empowered to submit to a reference so as to bind a party in expectancy of an estate of inheritance without consent of commissioners, s. 24.

person in expectancy of an estate of inheritance, may, upon notice from commissioners or assistant-commissioners, object to any award or apportionment, s. 65.

## EXPENSES. See COMMISSIONERS. LAND-OWNERS.

to be paid out of consolidated fund, unless otherwise provided for, &c. s. 8.

all expenses of agreement and investigating title to land given in exchange for tithes to be borne by the owners of land liable to tithes as they may agree, and in default of agreement as commissioners may direct, s. 30.

amount of, having been certified by commissioners, may be recovered by warrant of distress, s. 76.

expenses incident to making award to be paid by the land-owner and tithe-owner interested, in such proportion, time and manner as the commissioners may direct, s. 74.

of apportionment to be borne by land-owners, s. 75.

of special apportionment by party requiring it, s. 58.

of altered apportionment, by persons requiring it, s. 75.

may be recovered by distress, s. 76.

the owner of an estate in land or tithes less than fee simple or fee tail, or which is settled upon any uses or trusts, may, with the consent of commissioners, charge the expenses, or any part thereof, upon the lands or rent-charge, s. 77.

such charge to be lessened in every year following by one-twentieth part, s. 77.

any ecclesiastical beneficed person in commuting the tithes of his benefice may advance or borrow a sum of money to defray the expenses, and charge the rent-charge for 20 years, or until the sum advanced, with interest at 4 per cent. be repaid, s. 78.

every succeeding incumbent to pay the interest, and an instalment of 5 per cent. on the sum advanced, s. 78.

the amount to be certified under the hands of the commissioners, s. 78.

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in default of payment, living to be sequestered, s. 78.

## EXTRA-PAROCIAL. See PARISH.

## FISH OR FISHING,

act not to extend to tithes of, unless specially provided for, s. 90.

## FRUIT,

tithe of, how to be valued, s. 40.

## GARDENS,

tithe of, how to be valued, s. 40.

tithe of, may be estimated separately, upon notice given to the commissioners or assistant-commissioners, by the owners, s. 40.

provision for the change of culture, s. 42.

## GAZETTE. See STAMP DUTY.

## GENDER,

any word importing the masculine, only, shall mean and include a female as well as male, s. 12.

## GLEBE

lands exempt from tithe whilst in the occupation of the owner by reason of being glebe, to be exempt from the payment of rent-charge apportioned on them whilst in the occupation of the owner, s. 71.

## GUARDIAN. See COMMISSIONERS. LEGAL DISABILITIES. OWNER OF LANDS. OWNER OF TITHES. PATRON.

## HEREDITAMENTS,

designated by the word LANDS, s. 12.

## HOPS,

how valued, s. 40.

provision for charge of culture of hop-grounds, s. 42.

## HOUSES,

act not to extend to, unless specially provided for, s. 90.

## HUSBAND. See COMMISSIONERS. OWNER OF LANDS. OWNER OF TITHES. PATRON.

## IDIOT. See COMMISSIONERS. OWNER OF LANDS. OWNER OF TITHES. PATRON.

## INCUMBRANCES,

rent-charge, liable to, in like manner as tithes were, s. 71.

## INSPECTION. See ASSESSMENT.

## INTEREST

of the owners of lands or tithes to be estimated according to the sum at which such lands or tithes shall be rated to the relief of the poor, or if there shall be no such rate, according to rules by which such property is rateable to the relief of the poor, s. 19.

## INTERPRETATION CLAUSE, s. 12.

person, s. 12.

singular number, s. 12.

masculine gender, &c. s. 12.

lands, s. 12.

tithes, s. 12.

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joint-owners, s. 12.

## JOINT-OWNER.

for meaning of this term see interpretation clause, s. 12.

## JUSTICE OF PEACE. See ACTION. VALUER. UMPIRE.

to administer declaration to valuer or umpire, countersign and send it to the office of the commissioners, s. 34.

consent of two, requisite with commissioners of land-tax in altering an apportionment of rent-charge at the request of the owner of land, s. 72.

## KING. See CROWN.

## LANCASTER, DUCHY OF. See CROWN.

## LAND. See AGREEMENT. APPORTIONMENT. COMMISSIONERS. RENT-CHARGE.

any quantity, not exceeding in the whole 20 acres, may by agreement be given by way of commutation with owner of ecclesiastical tithes, s. 29.

land so given to be free from incumbrances, except leases at improved rent, land-tax, or other

LAND—*Continued.*

usual out-goings, not of leasehold tenure, nor of copyhold or customary tenure, subject to arbitrary fine, or the render of heriots, s. 29.

title of land so given to be investigated by commissioners, s. 30.

expenses of investigating title to be borne by the owners of land in the parish liable to the payment of tithes, s. 30.

award of commissioners not to give land, s. 50.

land-owner may agree to give twenty acres after apportionment, but before confirmation, s. 62.

in what case such agreement to annul former agreement for land, s. 62.

having been exempt from tithe during any part of the period of seven years preceding Christmas, 1835, to be valued separately upon notice given, s. 43.

how to be valued, s. 43.

to be discharged from the payment of tithes, from the first day of January next following the confirmation of every apportionment, s. 67.

unless any tenant at rack-rent dissent, s. 67.

thenceforward to be liable to a rent-charge, s. 67.

to be discharged from payment of tithes or rent-charge from the first day of January next following the confirmation of any parochial or other agreement for giving *land* instead of tithes or rent-charge, s. 68.

where exempt from tithes, whilst in the occupation of the owner, shall be exempt from rent-charge, s. 71.

act not to extend to lands, the tithes whereof shall have been already perpetually commuted under any act of parliament heretofore made unless specially provided for, s. 90.

distress and entry for arrears of rent-charge may be made upon any portion of the lands belonging to the same landlord, and held by the same occupier, whether the arrears be chargeable on the lands on which distress is taken or not, s. 85.

but not for rent-charge due upon lands washed away by the sea, or destroyed by any natural casualty, s. 85.

## LAND, OWNER OF. See AGENT. AGREEMENT. BENEFICE. COMMISSIONERS. CROWN. INTEREST. JOINT-OWNER. PAROCIAL MEETING. PATRON. REFERENCE. TITHE-OWNER. VALUERS.

for meaning of this term, see Interpretation clause, s. 12.

owner of lands, being also owner of tithes, may be dealt with in each character, s. 14.

or if patron of benefice, s. 14.

if a minor, idiot, lunatic, feme covert, beyond the seas, or under any other legal disability, the guardian, trustee, committee of the estate, husband or attorney to be substituted, s. 15.

may appoint agent by power of attorney, s. 16.

owner of one quarter value of land with the owners of great and small tithes to the like extent, may call parochial meetings, s. 17.

shall bear their own expenses of attendance, s. 17.

land-owners and tithe-owners present at meetings, if interested in not less than two-thirds of the land subject to tithes, two-thirds of the great tithes, and two-thirds of the small tithes, may make and execute parochial agreement, for the payment of an annual rent-charge in lieu of tithes, s. 17.

agreement so made, and duly confirmed, to be binding on all parties interested in tithes in the parish, s. 17.

if interest of parties present at meeting not sufficient, may make a provisional agreement, s. 18.

interest of land-owners to be estimated according to the sum at which the lands are rated to the relief of the poor, or if there be no such rate according to the rules by which such property is rateable, s. 19.

if suit depending, or dispute existing with respect to liability to tithes, boundary of lands, or any

**LAND, OWNER OF—Continued.**

other matter impeding agreement, owners or claimants of lands and tithes may submit the matters in difference to reference, s. 24.

no person possessing less than an immediate estate of fee-simple or fee-tail shall by reference bind any person in reversion, remainder or expectancy, without consent of commissioners, s. 24.

commissioners may direct any person interested to be made a party to reference, s. 24.

liable to the payment of tithe within the parish, to bear the expense of agreement for giving land by way of commutation for tithes or rent-charge, and also of investigating the title thereto, s. 30.

may before or after confirmation of agreement, appoint valuers at parochial meeting, s. 32.

if majority in respect of number, and majority in respect to interest, shall not agree, then two or any other even number of valuers to be appointed by the majority of land-owners in respect to number, and an equal number by the majority in respect to interest, s. 32.

three-fourths of land-owners at a meeting in number and value may agree upon the adoption of ad-measurement, plans, and valuations previously made, which agreement shall be binding on the valuers, s. 35.

interested in half the lands in any parish, may give notice to the commissioners that the value of tithes, ascertained upon the average of 7 years, will not fairly represent the sum which ought to be taken for calculating a permanent commutation of the tithes of the parish, whereupon the commissioners shall have power to diminish or increase the sum to be taken by one-fifth of the average value so ascertained, s. 38.

may before confirmation of apportionment agree with any owner of tithes in right of any spiritual benefice or dignity to give land not exceeding 20 acres, instead of rent-charge, s. 62.

interested in award to pay the expenses incident to making it, in such proportion, time and manner as the commissioners shall direct, s. 74.

to pay the expenses of making any apportionment in rateable proportions, s. 75.

having an estate less than fee-simple or fee-tail, or which is settled upon any uses or trusts, may, with the consent of the commissioners, charge the expense, or any part thereof, upon the lands for twenty years, s. 77.

such charge to be lessened in every year following by at least one-twentieth part, s. 77.

if tenant at rack-rent dissent from rent-charge, land-owner to stand in place of tithe-owner, and have all the powers for enforcing payment which tithe-owners have, s. 79.

**LAND-SURVEYORS. See MEETING. VALUERS. COMMISSIONERS.**

may be employed by commissioners, s. 59.

to have all the powers and be subject to all the provisions enacted concerning valuers appointed at a parochial meeting, s. 59.

**LAND-TAX, COMMISSIONERS OF. See APPORTIONMENT.**

at the request of land-owner, and with the consent of two justices to alter apportionment, s. 72.

**LEGAL DISABILITIES. See AGREEMENT. COMMISSIONERS. OWNERS OF LANDS. OWNERS OF TITHES. PATRON.**

whenever the patron of any benefice or the owner of any tithes or lands, or any person interested in any question as to tithes, shall be under any legal disabilities, the guardian, trustee, committee of the estate, husband, or attorney, may be substituted, s. 15.

and in default thereof, commissioners may substitute a person in the place of such patron, owner or person so interested, s. 15.

provisions respecting legal disabilities to apply to every person party to an agreement for giving land by way of tithes or rent-charge, or in whom any such land shall be vested, and whose

**LEGAL DISABILITIES—Continued.**

concurrence or consent may be necessary to the perfecting thereof, or of the title to such land, s. 31.

**LESSOR AND LESSEE. See AGREEMENT. COMPENSATION. TENANT. RACK-RENT.**

of tithes commuted may, under the direction of the commissioners surrender and make void his lease, so far as relates to the tithes, s. 88.

commissioners may direct compensation, deductions, &c., s. 88.

when joint owners, s. 12.

**LETTERS**

and packets, to and from commissioners, to be free of postage, s. 92.

**LIMITATION.**

statutes of, not to be affected by this act, s. 49.

**LOCAL ACTS. See EXEMPTIONS.**

the rent-charge of tithes commuted under this act and which might have been sold, exchanged, &c., under any local act to be saleable, &c., in like manner, s. 71.

proceeds to be invested in same manner as under such acts, s. 71.

**LONDON. See EXEMPTIONS.****MAP. See AGREEMENT. APPORTIONMENT. EVIDENCE. MEETING. VALUERS.****MATERIALS. See BARNS. TITHE OWNERS. COMMISSIONERS.****MEETING, PAROCHIAL. See AGENT. AGREEMENT. ASSISTANT-COMMISSIONERS. COMMISSIONERS. LAND-OWNERS. NOTICE. TITHE-OWNERS. VALUERS.**

land-owners or tithe-owners, whose interest respectively shall not be less than one-fourth of the whole value of the lands subject to tithes, or one-fourth part of the whole value of the tithes in any parish, may call a meeting, s. 17.

meeting to be held within the parish, s. 17.

twenty-one days' notice in writing, signed by parties calling the meeting, to be affixed on outer-door of church, or some conspicuous place within the parish, s. 17.

notice to be inserted twice, during twenty-one days in some newspaper generally circulated within the county, s. 17.

majority of land-owners and tithe-owners present to elect a chairman, who shall proceed to ascertain the interest of land-owners and tithe-owners then present in person or by their agents, s. 18.

interest of land-owners to be estimated according to the sum at which the lands are rated to the relief of the poor, or if there be no such rate, according to the rules by which such property is rateable, s. 19.

land-owners and tithe-owners present at meetings, if interested in not less than two-thirds of the land subject to tithes, two-thirds of the great tithes, and two-thirds of the small tithes, may make and execute parochial agreement, for the payment of an annual rent-charge in lieu of tithes, s. 17.

agreement so made, and duly confirmed, to be binding on all parties interested in tithes in the parish, s. 17.

persons attending to bear their own expenses, s. 17.

if interest of parties present not sufficient, may make a provisional agreement, which shall be binding if executed within six calendar months from the date thereof, by land-owners and tithe-owners, whose interest in the lands and tithes of the parish, shall not be less than two-thirds of the lands subject to tithes, two-thirds of the great tithes, and two-thirds of the small tithes respectively, s. 18.

may be adjourned by chairman to a time and place then by him to be declared, if majority require it, and so from time to time, s. 20.

notice of every adjourned meeting, signed by chairman, to be affixed outside the building, where last meeting shall have been holden, s. 20.

**MEETING, PAROCHIAL**—*Continued.*

business transacted at adjourned meetings as valid as if done at original meeting, s. 20.

commissioners or assistant-commissioners may attend, take part in discussion, and advise on the terms of agreement, but not to have any of the powers given in case of an award or apportionment, s. 23.

land-owners may before or after confirmation of agreement, appoint valuers, s. 32.

if majority of land-owners in respect of number, and majority in respect to interest, shall not agree, then two or any other even number of valuers to be appointed by the majority of land-owners in respect to number, and an equal number by the majority in respect to interest, s. 32.

three-fourths of land-owners at a meeting in number and value may agree upon the adoption of ad-measurement, plans, and valuations previously made, which agreement shall be binding upon valuers, s. 35.

of owners of land subject to tithes to be called by commissioners, as soon as an award is confirmed, for the purpose of choosing valuers, s. 53.

twenty-one days' notice of meeting so called must be given, s. 53.

**MERGER,**

rent-charge not to merge, except in certain cases, and with the approval of the commissioners, s. 71.

**MESSENGERS OF BOARD,**

to be appointed and removed by commissioners, s. 4, appointment limited to five years from passing of act, s. 6.

amount of salary to be regulated by treasury, s. 7, allowance of travelling and other expenses, s. 7.

**MILLS, TITHES OF.**

act extends to s. 90.

**MINERAL TITHES.** See EXEMPTIONS.**MINOR.** See COMMISSIONERS. OWNER OF TITHES. OWNER OF LANDS. PATRON.**MISDEMEANOR.**

party wilfully refusing to attend in obedience to summons of commissioners or assistant-commissioners, or to give evidence, or wilfully altering, withholding, destroying of, or refusing to produce any books, deed, contract, agreement, account, or writing, terrier, map, plan, or survey, or copies of the same, guilty of, s. 93.

**MODUS.** See REFERENCE. ARBITRATION. COMMISSIONERS. VALUERS.

disputes respecting, may be submitted to reference, s. 24.

in all cases lands to have the full benefit of, s. 33.

to be estimated as the value of the tithes payable in respect to lands over which it extends, s. 44, decisions upon, made by competent authority, to be acted upon by commissioners, s. 44.

act not to revive any right to tithes which now is or hereafter shall be barred by any law in force for shortening the time required in claims of modus decimandi or exemption from or discharge from tithes, s. 49.

**MORTGAGE.** See RENT-CHARGE.

not to give validity to any mortgage which before the passing of this act was invalid, and could not be enforced, s. 72.

**MORTUARIES.** See EXEMPTIONS.**NEWSPAPER.** See STAMP DUTY.**NOTICE.** See APPOINTMENT. AWARD. COMMISSIONERS. COPPICE-WOOD. DISTRESS AND ENTRY. HOP-GROUNDS. LAND-OWNERS. MEETING. TENANT AT RACK-RENT. TITHES-OWNERS.

twenty-one days' notice in writing signed by the parties calling a parochial meeting requisite, s. 17.

of adjournment, s. 20.

to be inserted twice during the twenty-one days in some newspaper circulating generally within the county, s. 17.

**NOTICE**—*Continued.*

forms of, to be framed by commissioners, and supplied or sent to churchwardens and overseers for use of land and tithe-owners, s. 22.

**NUMBER.**

any word importing the singular number only shall mean and include several persons or parties as well as one person or party and several things as well as one thing respectively, and the converse, s. 12.

**OATH.**

to be taken by commissioners and assistant-commissioners, s. 9.

commissioners may administer, s. 10.

may examine upon, s. 10.

may require production of books, &c. upon, s. 10.

**OFFICERS OF BOARD.**

to be appointed and removed by commissioners, s. 4.

not to be appointed for more than five years, s. 6.

amount of salary to be regulated by treasury, s. 7.

allowance of travelling and other expenses, s. 7.

**ORCHARDS.**

tithe of, how to estimate, s. 40.

tithe of, may be estimated separately upon notice being given to the commissioners or assistant-commissioners by the owner, s. 40.

**ORDER, PRIVILEGED.** See EXEMPTIONS.**OVERSEERS.**

forms of notices, agreements, &c., to be supplied to by commissioners, s. 22.

**OWNERS OF LAND.** See LAND OWNERS. TITHES

OWNERS. CROWN. JOINT OWNERS. PATRON.

BENEFICE. AGENT.

for the meaning of this term see the interpretation clause, s. 12.

**OWNERS OF TITHES.** See AGENT. BENEFICE.

CROWN. JOINT OWNER. LAND-OWNER.

PATRON. TITHE-OWNER.

for meaning of this term see interpretation clause, s. 12.

**PARISH AND PAROCHIAL,**

for meaning of these terms, see Interpretation clause, s. 12.

**PARLIAMENT.**

general report of proceedings of commissioners to be laid once in the year before, s. 3.

**PATRON.** See COMMISSIONERS. CROWN. BENEFICE. AGREEMENT.

consent under the hand of patron or person entitled to present requisite to an agreement for commutation of tithes, s. 26.

if owner of tithes or lands, or both, may be dealt with in each of the several characters, s. 14. may give notice that seven years average does not fairly represent value, s. 38.

if a minor, idiot, lunatic, feme covert, beyond the seas, or under any other legal disability, the guardian, trustee, committee of the estate, husband or attorney to be substituted, s. 15.

**PATRONAGE.** See BENEFICE. CROWN. PATRON.**PAYMENT, PRESCRIPTIVE OR CUSTOMARY.**

See ARBITRATOR. COMMISSIONERS. REFERENCE. VALUERS.

disputes respecting, may be submitted to reference, s. 24.

in cases of valuation, lands to have the full benefit of, s. 33.

when payable shall be taken to be the value of the tithes, s. 44.

commissioners or assistant-commissioners may hear and determine disputes respecting, s. 45.

**PENALTY.**

person sending or causing to be sent under any cover of the tithe commissioners any letter, &c., other than shall relate exclusively to the execution of this act, to forfeit £100, s. 92.

**PERJURY.**

persons giving false evidence on examination under authority of act, guilty of, s. 93.

**PERSON.** See INTERPRETATION CLAUSE, s. 12.**PERSONAL TITHES.** See EXEMPTIONS.**PLAN.** See EVIDENCE. VALUERS.

**POSTAGE.**

letters and packets to and from commissioners to be free from, s. 92.

**POWERS.**

may be delegated by commissioners to assistant-commissioners, s. 11.

except the power to confirm agreements and awards or to frame forms of agreements and other instruments under the seal of the commissioners, s. 11.

**PRINCIPAL.** See **AGENT.**

bound by acts of agent, s. 16.

**PRIVILEGED ORDER.** See **EXEMPTIONS.****PROCEEDINGS.**

not to abate by death of parties, s. 47.

how to proceed in case of death, s. 48.

not to be quashed for want of form, nor to be removed by certiorari, s. 95.

**PRODUCTION OF WRITINGS.** See **COMMISSIONERS. EVIDENCE. MISDEMEANOR. WITNESS.****QUAKERS.** See **DISTRESS FOR RENT. RENT-CHARGE. RACK-RENT, TENANT AT.** See **LAND OWNER. LANDS. RENT CHARGE. TENANT.**

may, by notice to the landlord or his agent, within one calendar month after confirmation of the apportionment, dissent from paying the rent-charge, s. 79.

in which case landlord shall stand in place of the owner of the tithes, and have all the powers for enforcing payment thereof which title-owner had, s. 79.

**RATES.**

tithes to be valued in all cases of compulsory commutation as liable to, s. 37.

on rent-charge to be assessed upon occupiers, s. 70.

if not paid by owner may be recovered from occupier in like manner as poor-rate, s. 70.

occupier may deduct same from rent, s. 70.

landlord or owner in possession having allowed rates to tenant may deduct same from rent-charge, s. 70.

or may recover same by any other lawful means against the owner of rent-charge, his executors and administrators, s. 70.

**REFERENCE.** See **COMMISSIONERS. TITHE OWNERS.**

suit depending or disputes existing with respect to liability to tithes, boundary of lands or any other matter impeding agreement, may be submitted to reference, s. 24.

reference to be made a rule of court and binding upon all parties, s. 24.

decision to be final, s. 24.

no person possessing less than an immediate estate of fee simple or fee tail shall by such reference bind any person in reversion, remainder or expectancy, without the consent of commissioners, s. 24.

commissioners may direct any person interested to be made a party to reference, s. 24.

**REMAINDER MAN.** See **COMMISSIONERS. REFERENCE.**

no person possessing less than an immediate estate of fee simple or fee tail in lands or tithes shall be empowered to submit to a reference so as to bind remainder man without consent of commissioners, s. 24.

may upon notice from commissioners or assistant-commissioners object to any award or apportionment, s. 65.

**RENT-CHARGE.** See **AGREEMENT. TITHES. TENANT AT RACK RENT.**

agreed to be paid by any agreement pending at the time of the passing of this act, and which agreement shall have been executed within the same time and by the same parties as required in the case of a provisional parochial agreement, and also confirmed by the commissioners, shall be apportioned and charged among and upon the lands as if the agreement had been made at a parochial meeting, s. 25.

tithes may be commuted for by parochial agreement, s. 17.

**RENT-CHARGE—Continued.**

any quantity of land not exceeding twenty acres, may, by agreement, be given to any owner of rent-charge for which tithes may have been commuted in discharge of or exchange for the whole or an equivalent part of any rent-charge agreed to be paid instead of such tithes, s. 29.

if the land given does not extend to the whole of the tithes an award or agreement may and shall be made for the payment of a rent-charge in satisfaction of the remainder, s. 29.

to be apportioned on all the lands in the parish except the land given by way of commutation unless otherwise agreed upon by the parties to the parochial agreement, s. 29.

charged upon lands by any apportionment to be valued according to the average price of corn to be ascertained by advertisement inserted in the Gazette, in the proportions of one-third wheat, one-third barley, and one-third Oats, s. 57.

may be apportioned specially, s. 58.

on account of tithes of one close not to be charged on other lands unless the value of such lands shall be at the least three times the value of the whole rent-charge upon such lands, s. 58.

payable in lieu of tithes on the first of January after confirmation of apportionment to the person therein mentioned, s. 67.

how estimated, s. 67.

payable by two equal half-yearly payments on the first day of July and first day of January in every year, s. 67.

first payment on the first day of July next after the lands discharged from tithes, s. 67.

except in the case of barren or reclaimed lands, s. 67.

to be recovered by person entitled thereto, his executors or administrators by distress and entry, s. 67.

to vary after every first day of January so as always to consist of the price of the same number of bushels of wheat, barley and oats respectively, according to the prices ascertained by the next preceding advertisement, s. 67.

future owners of to have the same powers of enforcing payment as given on the original rent-charge, s. 67.

no person to be personally liable for the payment of, s. 67.

to be liable to all parliamentary, parochial, county, and other rates, charges and assessments, s. 69.

owner of entitled to the like right of inspecting and taking copies of assessment containing rates and charges in respect to such rent-charge, and to enjoy the same remedies as any occupier or rate-payer has in case of poor-rates, s. 70. although name of owner not inserted in the assessment, s. 70.

to be subject to the same incumbrances as the tithes were liable to before commutation, s. 71.

not payable where lands were previously exempt from tithe whilst in the occupation of owner, s. 71.

may be sold, exchanged or appropriated in like manner as the tithes commuted might have been, s. 71.

money arising from sale of, may be invested or applied as money arising from sale of tithes, from which it has been commuted, might have been, s. 71.

not to merge in, or be extinguished in any estate of which the person for the time being entitled to such rent-charge may be seized or possessed in the lands on which the same may be charged, s. 71.

may be merged with consent of commissioners, s. 71.

tenant at rack-rent may, by notice to the landlord or his agent, within one calendar month after the confirmation of apportionment dissent from paying, s. 79.



**RENT-CHARGE**—*Continued.*

if in arrear for twenty-one days after any half-yearly day of payment the person entitled may, having given ten days notice, distrain and dispose of the distress as any landlord may for rent arrear on a common lease for years, s. 81.

not more than two years' arrears to be recoverable by distress, s. 81.

if in arrear forty days after any half-yearly day of payment and no sufficient distress on the premises, writ may issue directed to the sheriff to assess arrears, s. 82.

whereupon inquisition being returned to some one of the Courts at Westminster, a copy of the writ having been given to the owner of the land, or left at his last place of abode, and ten days' notice of execution given, sheriff to execute writ, s. 82.

owner of rent-charge may thereupon take possession of and retain the lands until the arrears of rent-charge, with all costs and charges, together with the expenses of keeping possession, and cultivating the lands, shall be satisfied, s. 82.

not more than two years' arrears to be recoverable, s. 82.

Court or Judge may order an account to be rendered from time to time, and upon satisfaction of the arrears, with all costs and charges, may direct restitution, s. 82.

Court or Judge may also afford summary relief, s. 83. distress for arrears due from Quakers may be made upon the premises or elsewhere, and may be sold without being impounded or kept, s. 84.

no writ for assessing arrears and taking possession to issue against Quakers unless rent-charge in arrear, for more than forty days after any half-yearly day of payment, and sufficient goods to satisfy the arrears and costs not to be found either on the premises or elsewhere, s. 84.

provisions of the 4 & 5 W. 4, entitled "An Act to amend the 11 G. 2, respecting the apportionment of rents, annuities, &c." to extend to all rent-charges payable under this act, s. 86.

**REPORT**

of proceedings of commissioners to be submitted once in the year to secretary of state, s. 3.

to be laid before parliament, s. 3.

containing rules for the guidance of assistant-commissioners, to be submitted to secretary of state before the 1st May, 1838, and to be laid before parliament, s. 36.

**REVERSIONER.** See REFERENCE. COMMISSIONERS.

no person possessing less than an immediate estate of fee-simple or fee-tail in lands or tithes shall be empowered to submit to a reference so as to bind reversioner without consent of commissioners, s. 24.

may, upon notice from commissioners or assistant-commissioners, object to any award or apportionment, s. 65.

may be made party to reference, s. 24.

**RULE OF COURT.**

submission to reference to be made, s. 24.

**RULES.**

for the guidance of assistant-commissioners to be framed by commissioners before May 1, 1838, s. 38.

for the guidance of assistant-commissioners in estimating the value of the tithes of coppice-wood to be framed by commissioners, and included in their report to the secretary of state, before 1st of May, 1838, s. 41.

such rules to be afterwards observed, unless parliament shall otherwise direct, s. 41.

**SALARIES.**

of commissioners, assistant-commissioners, secretary, &c., &c., to be paid out of consolidated fund unless otherwise provided for, s. 8.

**SEA.** land washed away by. See DISTRESS. RENT-CHARGE.**SEAL.** See AGREEMENT. ASSISTANT-COMMISSIONERS. EVIDENCE.

commissioners to have, s. 2.

all agreements, &c., to be sealed or stamped with, s. 2.

agreements, &c., purporting to be stamped with, to be received as evidence, s. 2.

no agreement, &c., to be of any force unless sealed or stamped with, s. 3.

**SECRETARY.**

of board, to be appointed and removed by commissioners, s. 4.

appointment of, limited to five years from passing of act, s. 6.

amount of salary regulated by treasury, s. 7.

allowance of travelling and other expenses, s. 7.

**SEPARATE ADJUDICATIONS.**

when to be made, s. 38.

how to be made, s. 39.

**SHERIFF.** See DISTRESS. RENT-CHARGE.**SPECIAL CASE.**

commissioners may state for decision of court of law, s. 46.

**STAMP DUTY.**

exemptions from.

advertisement in London Gazette or newspaper, s. 91.

agreement, award, or power of attorney, made or confirmed, or used under this act, s. 91.

**STATUTES** referred to:—

as to townships, 13 & 14 Car. 2, c. 12.

Duchy of Cornwall, 1 & 2 W. 4, c. 5, s. 13.

barren land, 2 & 3 Ed. 6, c. 13, s. 43.

limitations, 2 & 3 W. 4, c. 100; 3 & 4 W. 4, c. 27, s. 49.

Quakers, 7 & 8 W. 3, c. 34; 53 G. 3, c. 127.

apportionment, 4 & 5 W. 4, c. 22.

**SUIT.** See APPEAL. ARBITRATOR. COMMISSIONERS. REFERENCE.

may be submitted to reference, s. 24.

commissioners or assistant-commissioners may hear and determine cause in dispute, s. 45.

**SURPLICE FEES.** See EXEMPTIONS.**TENANT.** See RACK RENT. RATES. RENT-CHARGE.

dissenting from paying rent-charge, or who holds his lands free of tithes, or who after commutation may have been obliged to pay the rent-charge, may deduct the same from his rent, s. 80.

**TENEMENTS.** See EXEMPTIONS.**TITHES, COMMUTATION OF.** See AGREEMENT.

APPORTIONMENT. ARBITRATOR. ASSISTANT-COMMISSIONERS. AWARD. COMMISSIONERS.

COPPICE-WOOD. EXEMPTIONS. GARDENS.

HOP-GROUND. LAND-OWNERS. MODUSES.

NOTICE. ORCHARDS. REFERENCE. TITHING-OWNERS.

any agreement for the commutation of tithes into a rent-charge, pending at the time of the passing of this act, which shall be executed within the same time, and by the same parties as required in the case of a provisional parochial agreement, and also confirmed by the commissioners, shall be as valid as if made at a parochial meeting, s. 25.

consent of patron, under the hand of person giving the same requisite, s. 26.

any quantity of land, not exceeding 20 acres, may by agreement be given to any owner of tithes by way of commutation for the whole, or an equivalent part of the tithes of any parish, or of any rent-charge agreed to be paid instead of such tithes, s. 29.

if no agreement for commuting tithes into a rent-charge, binding upon the whole parish be entered into before the 1st of October, 1838, commissioners shall proceed to ascertain and award the total sum to be paid, s. 36.

to be calculated upon the clear average value during seven years, except in certain cases, s. 37.

to be estimated without making any deduction on account of any parliamentary, parochial, county, or other rates, charges, or assessments, s. 37.

**TITHES, COMMUTATION OF—Continued.**

whenever tithes might have been sold, exchanged, or appropriated, before commutation, rent-charge may be sold, exchanged, appropriated in like manner, s. 71.

right to tithes due before the commutation by this act not to be affected, s. 89.

**TITHE-OWNERS.** See **AGENT.** **ASSISTANT-COMMISSIONERS.** **BENEFICE.** **COMMISSIONERS.** **CROWN.** **INTEREST.** **JOINT-OWNER.** **LAND.** **LAND-OWNER.** **MEETINGS.** **PATRON.** **REFERENCE.**

for meaning of this term, see Interpretation clause, s. 12.

owner of tithes being also owner of lands may be dealt with in each character, s. 74.  
or if patron of benefice, s. 14.

if a minor, idiot, lunatic, feme covert, beyond the seas, or under other legal disability, the guardian, trustee, committee of the estate, husband, or attorney respectively, to be substituted, s. 15.  
may appoint agent by power of attorney, s. 16.  
may call parochial meetings, s. 17.

shall bear their own expenses of attendance, s. 17.  
land-owners and tithe-owners present at meeting, if interested in not less than two-thirds of the land subject to tithes, two-thirds of the great tithes, and two-thirds of the small tithes, may make and execute parochial agreement for the payment of an annual rent-charge in lieu of tithes, s. 17.

if interest of parties present at meeting not sufficient may make provisional agreement, s. 18.  
as to form of parochial agreement, s. 21.

interest of tithe-owners to be estimated according to the sum at which tithes are rated to the relief of the poor, or, if there be no such rate, according to the rules by which such property is rateable, s. 19.

if suit depending or dispute existing with respect to liability to tithes, boundary of lands, or any other matter impeding agreement, may submit matters in difference to reference, s. 24.

possessing less than an immediate estate of fee-simple or fee-tail, shall not, by such reference, bind any person in reversion, remainder, or expectancy, without consent of commissioners, s. 24.

may give notice to commissioners that the value of tithes ascertained upon an average of seven years, will not fairly represent the sum which ought to be taken for calculating a permanent commutation of the tithes of the parish, whereupon the commissioners will have power to diminish or increase the sum to be taken by one-fifth of the average value so ascertained, s. 38.

interested in award to pay the expenses incident to making it, in such proportion, time and manner as the commissioners shall direct, s. 74.

possessing an estate in tithes less than an immediate estate of fee-simple or fee-tail, or which shall be settled upon uses and trusts, may, with the consent of the commissioners, charge the expense, or any part thereof, upon the rent-charge, s. 77.

such charge to be lessened in every year following, by at least one-twentieth part, s. 77.

may sell barns or buildings, generally used for the housing of tithes, and rendered useless by the commutation of tithes, or may pull down the same, sell the materials, dispose of the site, with the consent and under the direction of commissioners, s. 87.

may convey and deliver to purchaser, and his receipt be a good discharge, s. 87.

the proceeds to be laid out in such manner, and upon such trusts, as commissioners may direct, s. 87.

**TREASURY.** See **APPOINTMENTS.** **CROWN.** **PATRON.**

**TRUSTEE.** See **COMMISSIONERS.** **LEGAL DISABILITY.**  
**OWNER OF LANDS.** **OWNER OF TITHES.** **PATRON.**

**VALUERS.** See **ACTION.** **ASSISTANT-COMMISSIONERS.** **COMMISSIONERS.** **DECLARATION.** **JUSTICE OF PEACE.** **LAND-OWNERS.** **LANDS.** **MEETING.** **UMPIRE.**

owners of lands subject to tithes, or agents, may appoint valuers at any parochial meeting, either before or after the confirmation of the agreement, s. 32.

in case of disagreement, the majority in respect to number to appoint two or any other even number, and the majority, in respect to interest, to appoint an equal number, s. 32.

after confirmation of agreement, valuers to apportion total sum agreed to be paid according to the principles of apportionment agreed upon at the meeting, s. 33.

how to act if no principle for the guidance of the valuers shall have been agreed upon, s. 33.

to give to all lands the full benefit of exemption, as moduses, compositions, &c. s. 33.

when even number of valuers chosen, may by writing under their hands appoint an umpire before they proceed upon the business of apportionment, s. 33.

decision of umpire to be binding on valuer, s. 33.  
before acting to subscribe a declaration, s. 34.

may, with their agents and servants, enter upon lands to be included in the apportionment, s. 34.

may make admeasurement, plan, and valuation, without being subject to any action or molestation, s. 34.

may use admeasurement, plans, or valuations, previously made, if agreed upon at meeting, s. 35.

if chosen at a meeting called by the commissioners after award confirmed, to act with the same powers, and subject to the same provisions as if chosen at a parochial meeting called by the land-owners and tithe-owners, s. 53.

if apportionment not made and sent to the office of commissioners within six calendar months, commissioners or assistant-commissioners to apportion the rent-charge, s. 54.

to make a special apportionment upon request of land-owners, s. 58.

not to charge any land with the tithes of any other lands, unless the value of such land shall be at least three times the value of the whole rent-charge upon such land, s. 58.

employed by commissioners to have all the powers and subject to all the provisions enacted concerning valuers appointed at a parochial meeting, s. 59.

if employed by commissioners not bound to adopt any principles of apportionment agreed upon at any parochial meeting, s. 59.

not to be paid more than two guineas per day, s. 59.  
commissioners may make any agreement for the payment of one sum for the whole duty to be performed by, s. 59.

**UMPIRE.** See **ACTION.** **ASSISTANT COMMISSIONERS.** **COMMISSIONERS.** **DECLARATION.** **JUSTICE OF PEACE.** **LANDS.** **MEETING.** **VALUERS.**

when even number of valuers chosen they may appoint an umpire, whose decision will be binding on them, s. 33.

before acting to subscribe a declaration, s. 34.  
may, with his agents and servants, enter upon lands to be included in apportionment, s. 34.

make admeasurement, plans, &c. without being subject to any action or molestation, s. 34.

may use admeasurement, plans, &c. previously made if agreed upon at parochial meeting, s. 35.

**WARRANT.** See **DISTRESS AND ENTRY.** **EXPENSES.** **RATES.**

**WASTE LAND.** See **EXEMPTIONS.**

**WITNESSES.** See **EVIDENCE.**

**WOOD.** See **COPPIC WOOD.**











